A Qualitative Study of Lived Experiences of Bipolar Disorder in the Malaysian Population: Understanding Resilience-Related Self-Regulation from the Perspective of Social Ecology in Malaysia

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I declare that this thesis is my own work and has not been submitted for the award of a higher degree elsewhere.

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ABSTRACT

Background

Living with bipolar disorder or any severe mental illness can be challenging. Therefore, living well with bipolar disorder is essential to having a meaningful and purposeful life and, at the same time, better mental health. Living well with bipolar disorder requires an active involvement in the overall management of one's life. The person's effort and ability to manage their life with bipolar disorder can be affected by many factors. This research aims to understand and explore the lived experiences of individuals with bipolar disorder in the context of their environment. Socio-ecological theory was used from a resilience perspective to understand how people's lives and bipolar disorder were affected by and related to their environment. In other words, their involvement in and perceptions of their life and illness were explored from the ongoing interactions with their social environment.

Aims

This study aims to understand the lived experiences and to explore the causal explanations for the resilience-related self-regulation behaviour of individuals with bipolar disorder in the socio-ecological context in Malaysia.

Methods

This research was divided into two parts. The first part involved conducting a scoping review to determine the extent of the existing literature relevant to the self-regulation of bipolar disorder. The second part involved qualitative semi-structured interviews with individuals with bipolar disorder about their lived self-regulation experiences from the socio-ecology perspective. The interview data were analysed using a thematic approach congruent with the critical realist paradigm.

Results

The scoping review in this study showed that many factors from the socio-ecological layers were involved concerning self-regulation in bipolar disorder. Most factors came from the lower socio-ecological layers, particularly the individual and microsystem aspects. As for the qualitative study, five themes were generated that supported the development of two causal explanations for the participants' self-regulation behaviour. The themes were (I) Well-being as a multidimensional experience shaped differential engagement across culturally influenced biopsychosocial-spiritual life domains, (II) Physical strategies shaped by interpersonal relationships within the surrounding environment, (III) Cognitive and emotional strategies used in response to stress, (IV) Personal hopes, desires, and spiritual or religious influences on well-being, and (V) The mixed implications of social media for well-being. The causal explanations were (i) An individual's perception and responses to illness and well-being experiences are shaped by the culturally influenced values placed on the biopsychosocial-spiritual life domains, (ii) Individuals are dynamic and resourceful agents actively approaching life circumstances in many ways that are beneficial to them.

Conclusion

The overall findings in this study revealed that individuals with bipolar disorder are dynamic and capable of identifying and utilising the relevant resources around them, which are connected to biological, psychological, social, and spiritual factors, for their well-being. This observation suggested that the biopsychosocial-spiritual domains influence their resilience-related self-regulation behaviour in the context of their social ecology. The knowledge developed in this study may benefit future mental health development programmes that focus on improving self-regulation among individuals with bipolar disorder.

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CHAPTER 1 – INTRODUCTION

1.1 Research Motivation

The overall aim of this research is to understand the individuals' experiences of regulating their lives while living with bipolar disorder in the socio-ecological context in Malaysia. This topic area is relevant to my educational and occupational background, as I am medically trained and currently working as a psychiatrist. Having worked in psychiatry for almost 15 years has allowed me to see how individuals with mental health issues, including bipolar disorder, manage their adverse life events. While some individuals had been effective at handling their life events, others were less successful. This observation sparked my curiosity about their experiences in approaching and adapting to life circumstances, which led to the conduct of this study. I was interested in learning more about their strategies and approaches to managing life-related issues, as well as the factors that influence them. Their approaches would reflect on their coping abilities, which I believed were essential, given the potential life difficulties directly or indirectly associated with bipolar disorder. With the knowledge gained, health professionals working with individuals with bipolar disorder will likely be more mindful and practical as their mental health will be assessed and approached from a much broader perspective than merely dealing with it from the illness point of view.

1.2 Research Position and Its Justification

My initial thoughts regarding the reasons for the behavioural responses of people living with bipolar disorder were that their actions were a response to their illness condition (Sadock et al., 2015) and the factors in their environment (Hairston, 2022; Campbell & Rohrbaugh, 2013), which, as a third-party observer, initially appeared certain and straightforward. Over time, it became clear that what I had in mind as the reasons for their behaviour were not always accurate. This led me to adopt another way of seeing their behaviour, in that they “needed to tell their own stories” (Richards, 2011, p. 785), to understand their behaviour. Even so, this

approach did not fully explain the underlying reasons for their actions, as further exploration revealed other unspoken factors that had contributed to these actions. I then realised that multiple factors influence a person's behaviour, some more apparent than others (Bryman, 2012). Therefore, my position in this aspect is that multiple causal mechanisms operate and interact to, as Dickens (2003) put it, "generate the world as experienced" (p. 95). Three distinct philosophical worldviews were involved based on the way I looked at the behaviour of individuals with bipolar disorder described above. Philosophical worldviews are used as research paradigms to guide the conduct of a study. The three research paradigms that correspond to how I looked at the behaviour of individuals with bipolar disorder described above are positivism, constructivism, and critical realism. While all three paradigms are functional to investigate issues in the human and social sciences, the research paradigm adopted must also be congruent with the researcher's worldview on that matter (Kivunja & Kuyini, 2017).

Positivism is primarily grounded in the scientific research method, which involves exploring observations through the experimentation process (Kivunja & Kuyini, 2017). The positivist perspective aligned with my initial thought that a person's behaviour was a direct response to their illness condition and their environment. However, as explained above, this was not the case based on my later observations. Constructivism, on the other hand, refers to a position where individuals construct their lived experiences and assign meanings to them (Bryman, 2012). This second viewpoint aligned with my subsequent thoughts about their behaviour, but this perspective did not adequately provide an answer to the reasons behind their behaviour. My third and final opinion was that their behaviour could be influenced and explained by many factors, some of which were unobservable. This opinion aligns with critical realism, which posits that mechanisms are operating to generate one's experiences (Bryman, 2012), i.e., *the empirical, the actual,* and *the real* (see Chapter 4). Given that critical realism is

the best fit for my worldview regarding the behaviour of individuals with bipolar disorder, it is adopted in this study (i.e., both the scoping review and the qualitative study).

1.3 Key Concepts and Terms

This study's key concepts and terms are self-regulation, bipolar disorder, socio-ecology, and resilience, which are described in more depth in Chapter 2. The definitions of the key concepts are described in *Table 1* below. Self-regulation is the central concept explored in conjunction with the other concepts. Other terms related to each concept are also used in writing this thesis if their conceptual definitions carry similar meanings. A straightforward example would be bipolar disorder, in which other related terms that have similar conceptual meanings are bipolar affective disorder, bipolar mood disorder, bipolar depression, and so on. No choice of terminology, except key terms, can be predetermined for use due to the abstract nature of the study concepts, especially self-regulation and resilience. This condition is particularly relevant in the scoping study presented in Chapter 3, where new terms discovered during the study prompted a subsequent search for other related literature to ensure the comprehensiveness of the review process. The key terms stated above are used to represent the concepts of the study, ensuring consistency in clarity. The terms used in this study are informed by my research position and those encountered in the literature, which align with my understanding of the concepts. Therefore, it is worth noting that the choice of terms used to represent the study concepts may not be agreeable to everyone, as they may perceive it as pathologising their individual experiences (Mandla et al., 2017).

Concept	Definition	Operational Definition
Self-regulation	An individual's capacity to manage their thoughts, attention, emotions, and behaviour flexibly and sustainably. This involves monitoring, adapting, and modifying responses in relation to internal states or external demands to pursue meaningful goals(van Genugten et al., 2017).	Ways in which individuals living with bipolar disorder describe and carry out strategies to manage their thoughts, emotions, behaviour, and daily activities in response to their internal and external experiences. It is examined through participants' accounts of what they do and how they maintain well-being, as well as the life-related challenges they face.
Bipolar disorder	A spectrum of mood conditions (i.e., depression, hypomania, mania) characterised by recurring changes in mood that significantly affect one's emotion, energy, and activity. (Phillips & Kupfer, 2013).	Clinically diagnosed mood conditions reported by individuals, which form the background context of their lived experiences. The diagnosis is not treated as the primary explanation for their behaviour but provides the experiential context within which their self-regulation is explored. In other words, while bipolar disorder is recognised as a clinical diagnosis, this study does not assume that individuals' behaviour is determined solely by illness processes, but explores how they negotiate within their socio-ecological contexts. The focus, therefore, is to explore how individuals are involved in regulating their lives while living with bipolar disorder.
Socio-ecology	Interconnected relationships and influences between individuals and their environmental contexts (e.g., social, physical, cultural, and institutional) that occur across multiple levels of social organisation. (Stokols, 1992).	The interconnected, multi-level social, environmental, institutional, and cultural contexts that influence and interact with individuals' self-regulation behaviour while living with bipolar disorder. These contexts include family and community networks, the healthcare system, and broader macrosystem influences such as cultural values and religious and spiritual practices. Within the multicultural Malaysian setting, the socio-ecological influences reflect the existence of multiple cultural

		and religious traditions, collectivist orientations, norms surrounding help-seeking and understanding of mental illness, and stigma. Socio-ecology is understood through individuals' accounts of how their contexts influence and shape their self-regulatory behaviour.
Resilience	The capacity of individuals in accessing and utilising resources that support their well-being, which also reflects the extent to which their familial, community, and cultural environment make resources available that are meaningful to their context. (Ungar, 2008,).	Processes through which individuals with bipolar disorder describe their ability to maintain their well-being in relation to their environmental context. It is understood through individuals' accounts of how they utilise the available resources to enable adaptive self-regulation.

Table 1. Definitions of key concepts

1.4 Research Topic Overview

There has been discussion about whether bipolar disorder is best understood from a categorical or a dimensional perspective. Categorical approaches, which underpin current diagnostic systems, provide the framework necessary to assist in clinical identification and management of bipolar disorder. On the other hand, dimensional approaches focus on the variety of lived experiences across different life contexts. This distinction is relevant to this study, as categorical approaches provide an important initial reference point. However, they may not fully capture individuals' experiences of regulating their lives beyond symptom thresholds. This study adopts a contextual approach informed by a categorical perspective, while also recognising the value of a dimensional understanding of self-regulation in bipolar disorder within socio-ecological contexts. A more detailed discussion of categorical and dimensional perspectives of bipolar disorder is provided in Chapter 2 below.

Living with mental health challenges, such as bipolar disorder, can be a challenging experience due to the many difficult life situations associated with it (Maassen et al., 2018).

Bipolar disorder is also linked to negative impacts on caregivers and families (Perlick et al., 2016; Van der Voort et al., 2007). Therefore, effective bipolar disorder management is essential to support individuals living with bipolar disorder in pursuing meaningful lives, and reduce the impact on caregivers and families, thus providing a better quality of life for both parties. Whilst the biological approach, as represented by aspects of human biology such as neuroendocrine and neurochemical factors (Sadock et al., 2015), has been the priority as the primary form of treatment for bipolar disorder (Jones et al., 2011), approaches focussing on social and environmental factors are increasingly emphasised, as the biomedical approach alone to managing health and illness is no longer relevant (Carpenter & Harper, 2016). An example of such non-biological approaches is psychosocial interventions, including self-management (Reinares et al., 2014; Jones et al., 2011).

Self-regulation is perceived as a foundation for chronic illness self-management, such as bipolar disorder, due to the involvement of complex individual and interpersonal processes in managing well-being that require the regulation of one's cognition, emotion, and behaviour (Lansing & Berg, 2014). Self-regulation is aligned with one's perception and influenced by personal, social, and cultural expectations (Trommsdorff, 2012). Concepts such as self-regulation, self-management, and coping are interrelated and are sometimes used interchangeably. While self-management often refers to illness-related practices (Siantz et al., 2014) and coping as responses to specific stressors (Folkman, 2010), self-regulation is understood in a broader sense as dynamic processes to monitor, align, adjust, or execute the individuals' own thoughts, emotions, and behaviour in response to internal and external demands (Baumeister & Vohs, 2007). In this study, the latter is used to represent behavioural regulation among individuals with bipolar disorder.

Although self-regulation in bipolar disorder has been widely discussed in the literature, the current research shows the use of a diverse conceptual approach, such as self-management,

coping, and self-care. These concepts are often examined independently rather than from a broader socio-ecological context. Furthermore, many studies have been conducted in Western contexts, with limited attention to how socio-environmental factors shape self-regulation in non-Western environments. The scoping review in Chapter 3 aims to address this gap by examining self-regulation in bipolar disorder from a socio-ecological perspective. The subsequent qualitative study (Chapter 4) then explores self-regulation processes in bipolar disorder in depth within the local Malaysian context.

The influence of an individual's environment is crucial in determining their ability to navigate their behavioural choices and improve their life situation. In other words, how successful a person is in dealing with their bipolar disorder is very much dependent on their environment (i.e., socio-ecology). When people are supported in their community, their chances of returning from adversity (i.e., resilience) are improved (Meyer & Mueser, 2011). As the socio-ecological context varies from place to place, this affects one's resilience differently.

While resilience and self-regulation are related, they are not conceptually similar in this study. Resilience here refers to the dynamic capacity of an individual that develops over time through the interaction between their self-regulatory processes and available socio-ecological resources (Ungar, 2011). Self-regulation, on the other hand, involves the cognitive, emotional, and behavioural processes through which individuals manage internal states and external demands (Baumeister & Vohs, 2007). Therefore, in the context of bipolar disorder, resilience is not an implicit outcome of adaptive behaviour but a process of dynamic negotiation with life challenges and contextual conditions to achieve optimal outcomes (Fletcher & Sarkar, 2013).

1.5 Thesis Rationale

The experience of bipolar disorder can be life-challenging as it can impair well-being (Katz et al., 2022; Michalak et al., 2006) due to the associated stressors, for example, isolation, stigma, illness management, homelessness (Chronister et al., 2015), as well as education, finances, employment, interpersonal relationships, and legal issues (McNeill & Galovski, 2015). Therefore, intervention from the pharmacological or biological aspect alone will never be sufficient to improve one's general well-being unless other supportive and therapeutic approaches to improve one's social and environmental factors are included (Sadock et al., 2015).

Concerning bipolar disorder, researchers have called for further understanding and exploration of the lived experiences of individuals with the disorder, particularly in their local context (Hormazabal-Salgado & Poblete-Troncoso, 2020). This need is especially relevant in the Malaysian context, given that many such studies were conducted in different countries and cultures. Therefore, understanding the topic area from a local perspective and establishing one's own theoretical or conceptual framework (Fontaine & Richardson, 2003) would facilitate a better appreciation of similar research conducted worldwide. From a practical perspective, this would mean incorporating the research findings into future service improvements for local people.

Regarding the social ecology of mental health resilience, researchers aim to understand the context-specific social-ecological factors that influence mental health and their relevance to one's resiliency (Luthar et al., 2000). Regarding self-regulation, scholars are interested in understanding how individuals manage their lives with a given illness condition and in a specific contextual environment (Maassen et al., 2018; Zeidner et al., 2000). Therefore, this research aims to explore these concerns, which inform the study objectives outlined below.

1.6 Aims of the Study

This research is divided into two distinct but related studies: a scoping review and a qualitative study.

1.6.1 Scoping Review

The scoping review aims to examine how and to what extent self-regulation in bipolar disorder has been researched. The review questions guiding the study are:

a) In what specific socio-ecological systems has self-regulation been described to understand bipolar disorder?

b) In what specific socio-ecological systems have self-regulation-related challenges been described to understand bipolar disorder?

c) What other terms have been used that indicate self-regulation in individuals with bipolar disorder?

d) Which research methods have been used to study self-regulation in bipolar disorder?

1.6.2 Qualitative Study

The qualitative study aims to explore self-regulation behaviour in relation to resilience among individuals with bipolar disorder in the socio-ecological context of Malaysia. The research question guiding the study is:

a) What are the experiences and their possible causal explanations for the individuals' self-regulation in relation to resilience while living with bipolar disorder in the socio-ecological context in Malaysia?

The following objectives are focussed on answering the research question:

Objective 1. To explore the experiences of individuals with bipolar disorder in Malaysia in self-regulation while living with bipolar disorder.

Objective 2. To identify the social-ecological factors that are perceived by these individuals to influence self-regulation while living with bipolar disorder.

Objective 3. To identify the socio-ecological needs that are desired and perceived to be necessary for self-regulation in bipolar disorder by these individuals.

1.7 Thesis Structure

This thesis is divided into seven chapters:

a) Chapter 1 is an introductory chapter that gives an overview of this thesis
b) Chapter 2 provides the theoretical background of the research, highlighting the key concepts used in this thesis
c) Chapter 3 presents the findings of a scoping review on the topic area of self-regulation in bipolar disorder
d) Chapter 4 focusses on the qualitative research methodology, describing the research methods used in conducting the study
e) Chapter 5 reports the overall research findings of the qualitative study, which includes the themes and causal explanations related to self-regulation in bipolar disorder
f) Chapter 6 is the chapter that discusses the overall findings of this thesis
g) Chapter 7 is the conclusion chapter that provides a summary of this thesis

CHAPTER 2 – BACKGROUND

2.1 Study Concepts

2.1.1 Bipolar Disorder

Bipolar disorder is ranked the fifth leading cause of disability-adjusted life years (DALYs) for mental and substance use disorders (after major depressive disorder, anxiety disorder, schizophrenia, and alcohol use disorder) based on the data from the Global Burden of Disease 2013 (Ferrari et al., 2016). It is a mood disorder characterised by "discrete episodes of altered feeling, thought, energy, and behaviour" (El-Mallakh & Bauer, 2015, p. 858) during periods of mania or depression, in which the clinical features for the mood disturbances are highlighted in the International Classification of Diseases (11th revision) (ICD-11) or the Diagnostic and Statistical Manual of Mental Disorders (5th edition) (DSM-5). Bipolar disorder is a form of severe mental illness (Galvez et al., 2011) which, according to the United States Department of Health and Human Services (1992), is defined as episodic, recurrent, or persistent syndromes of any diagnosable mental, behavioural, or emotional disorder that impairs a person's functioning and participation in significant life activity (-ies) (Chronister et al., 2015).

Bipolar disorder is estimated to have a prevalence of 2% (Clemente et al., 2015), and consistent with this, Humpston et al. (2021) reported the lifetime prevalence of bipolar disorder to be about 2% among the population in the United Kingdom. There is yet to be an epidemiological study for bipolar disorder in Malaysia, but in its neighbouring country, Singapore, the prevalence of bipolar disorder was reported to be around 3% (Teh et al., 2020). One possible reason for the higher prevalence of bipolar disorder in Singapore than in the UK is the inclusion of subthreshold bipolar disorder in the data analysis of the study in Singapore, which potentially heightened the figure estimate. Given the proximity of Singapore and

Malaysia and the sharing of histories and demographic profiles (Kuah et al., 2021), the prevalence of bipolar disorder in Malaysia is likely to be similar to Singapore.

Bipolar disorder has been associated with a significant disease burden (Sajatovic, 2005) due to risks of suicide, functional or cognitive impairments and physical illnesses (Rowland & Marwaha, 2018; Clemente et al., 2015). As a result, bipolar disorder can cause significant life challenges (Maassen et al., 2018), including morbidity and mortality among individuals suffering from it (Lawrence et al., 2010; Robson & Gray, 2007). Suboptimal life quality can further impair the prognostic outcome of bipolar disorder (Parks et al., 2006). Some examples of challenges associated with bipolar disorder are residual depressive symptoms (Bonnin et al., 2012) and psychosocial limitations (Jerant et al., 2005), for example, poor living environments and unhealthy diet practices (Chafetz et al., 2006). These issues can subsequently negatively impact one's functioning in life (Maassen et al., 2018; Hansson, 2006).

Whilst bipolar disorder was commonly believed to be episodic (Manove & Levy, 2015), it has been increasingly proven to run a chronic course (Fagiolini et al., 2013). This observation is likely due to the growing evidence that shows the "multisystem involvement of BD" (bipolar disorder) (Soreca et al., 2009, p. 73) rather than independent occurrences of mood disturbances. Soreca et al. (2009) claimed that the symptom domains of bipolar disorder come from a combination of circadian rhythm disturbance, mood instability, and cognitive dysfunction, resulting in long-term illness duration. The achievement of symptomatic remission in bipolar disorder, defined as a "symptom-free state" (Harvey, 2006, p. 15), is more difficult than syndromal recovery (Sanchez-Moreno et al., 2009), which is defined as having mild residual bipolar symptoms (Harvey, 2006) in between the acute illness episodes. Even so, residual or subsyndromal symptoms can be similarly debilitating to an individual's overall function (Grunze & Born, 2020).

Bipolar disorder has also been said to lie within the spectrum of human mood experiences. This spectrum encompasses a range of symptoms below the diagnostic threshold in a normal population (Angst & Cassano, 2005), a finding with which Youngstrom et al. (2010) also concur. According to the latter, there is no clear demarcation of pathological mood from ordinary mood changes. To this extent, Cassano et al. (2002) suggested that different emotional experiences, whether normal or pathological, should be grouped or categorised, i.e., placed on a spectrum of mood experiences. Prisciandaro and Roberts (2005) proposed that the subsequent bipolar disorder treatment approach should be based on the symptoms presented and the level of impairment associated with the severity of the symptoms. This suggestion, along with the proposal from Soreca et al. (2009) that bipolar disorder is manifested from a combination of pathological systems stated above, would mean the need to develop a multidimensional diagnostic and treatment tool for more comprehensive bipolar disorder interventions, which we have not yet developed (Soreca et al., 2009). However, using a diagnostic category of bipolar disorder helps indicate the person's impairment level, which helps inform decisions on clinical and other forms of appropriate intervention (Bonanno & Diminich, 2013; Berganza et al., 2005; Williams, 1979). The diagnostic categorical approach has enabled significant advancements in research and development in critical areas of interest, such as intervention strategies (Bonanno & Diminich, 2013). For example, using a diagnostic approach allows a more accurate and precise treatment approach for mood disorders (Phillips & Kupfer, 2013).

To investigate whether bipolar disorder is best classified categorically or dimensionally, Parker et al. (2016) performed a study involving 1081 individuals with a clinical diagnosis of bipolar disorder. In that study, a mixture analysis was performed using several questionnaires collected during the interview, including the Mood Swings Questionnaire (Parker et al., 2012). The analysis was conducted to determine whether a single or multiple subpopulations exist

based on the generated scores. The latter would suggest the existence of bipolar subpopulations, hence the categorical variation. The findings supported the bipolar I and bipolar II categorical distinction for the presence/absence of psychotic features, severity of symptoms, and their symptom duration. However, Bonanno and Diminich (2013) explained the controversies surrounding categorical diagnoses, whereby the diagnostic boundaries are vague and less empirical than previously thought. Using posttraumatic stress disorder (PTSD) as an example, Bonanno and Diminich (2013) highlighted that the expansion of its diagnostic criteria to "allow greater weight to the subjective experience of trauma" (p. 381) has consequently reduced the diagnostic validity. Nevertheless, in this study, the diagnostic categorical approach will be adopted as it is congruent with the systems of care used in Malaysia and relevant to this study, where bipolar disorder is diagnosed according to the illness categorisation in the Diagnostic and Statistical Manual of Mental Disorders (DSM) and/or International Classification of Diseases (ICD).

2.1.2 Self-regulation

While there are many ways of defining self-regulation, the definition's common characteristic "incorporates ability to change, alter or modify one's own behaviour" (Hagger, 2010, p. 57). Some relevant aspects of self-regulation include executive function, emotional control, and the ability to delay gratification (McClelland et al., 2018). The academic interest in self-regulation began in the earliest days of psychology, likely beginning with William James in 1890, when the 'self' was emphasised as the object that plays a determining role in its own development (McClelland et al., 2018; Lerner, 1982). In other words, an individual is seen as capable of directing and building themselves up through their experiences. Self-regulation is predictive of both health- and non-health-related matters, for example, academic achievement (McClelland & Wanless, 2012), employment (Huie et al., 2014), physical activity (Umstattd et al., 2008), and mental well-being (Howard & William, 2018).

Self-regulation behaviour has been said to promote mental well-being by achieving one's goals, where goal achievement may lead to a sense of autonomy and meaning, as well as the development of coping strategies (van Genugten et al., 2017). These goals are related to intrinsic and extrinsic motivations that assist in one's objective(s) for their own well-being (Oettingen & Gollwitzer, 2001), where they can decide the appropriate actions to be taken to achieve the outcome they have desired. As such, self-regulation focuses on a person's efforts in life management based on the availability and constraints of the resources for achieving their goals (Newman & Newman, 2020). In other words, it generally refers to any systematic human effort to make changes or adjustments to improve life conditions using the resources available (Vohs & Baumeister, 2004). For example, individuals with bipolar disorder who manage their opportunities to get support from their relatives for their well-being, such as learning to communicate with them (Chatzidamianos et al., 2015).

Self-regulation enables individuals facing adversity to adopt proactive strategies to overcome or improve a challenging situation. This involves a "conscious effort to influence thoughts, feelings, and behaviours to achieve a goal in the context of a changing environment" (Singh & Sharma, 2018, p. 441). In a qualitative study by Koene et al. (2025), individuals with bipolar disorder were interviewed to understand their self-regulation strategies for preserving employment. Their strategies were essentially summarised under the overarching theme of 'creating fitting employment', where strategies were employed to organise work, manage their thoughts, emotions, and behaviour, and seek support from family, friends, colleagues, and professionals. One thing worth noting is that the use of various individual strategies is aimed at sustaining or maintaining employment. This illustrates the impact of having a personal goal that motivates the execution of various behavioural activities to achieve one's desired objective, even as not all things are within the individual's control.

The relevance of a particular goal to the individual's well-being determines the priority given to its fulfilment. Self-regulation dynamics can be divided into commitment-induced highlighting and progress-induced balancing, depending on their contextual state. The difference between the two is that the former focusses on a personal commitment to achieve a desirable outcome, and the latter concentrates on the progress needed to move from the current state to the desirable state (Fishbach et al., 2009). Regardless, both dynamic types involve behavioural actions that help the individual achieve the desired result. Therefore, self-regulation is necessary to help individuals navigate life experiences, improve unpleasant circumstances, and achieve the best possible outcome. In the area of mental health and illness, self-regulation enables individuals to develop certain beliefs and behaviours that influence their illness management (Petrie & Weinman, 2006). Weiner (2011), in her discussion paper, remarked on the agency of the individual with bipolar disorder in their treatment involvement, particularly from the biomedical perspective. Self-management (an aspect of self-regulation) of bipolar disorder involves the ongoing analysis of the self-perception about the disorder, through which strategies are devised to take charge and make oneself a manager of bipolar disorder. To realise this requires that the self is seen as separate from the disorder, which allows the individual to regain an agentive self and manage themselves through their own decisions (Weiner, 2011).

2.1.3 Socio-ecology

Socio-ecology is a broad concept encompassing various studies on diverse subjects, including psychology, sociology, public health, and economics. The socio-ecological systems theory, developed by Bronfenbrenner (1977), initially focussed on delineating the relationships between and among socio-ecological factors affecting children's development. These factors are composed of different system layers, namely the microsystem, mesosystem, exosystem, and macrosystem, as described below. Over time, the theory has evolved to incorporate other

aspects deemed relevant to human development, i.e., the person, process, and time. The change has led to the refinement of the model, namely the process-person-context-time (PPCT) model that "accentuated the interplay of proximal processes, individual characteristics, environmental contexts, and temporal dimensions in human development", which allows for a closer observation of the interactions among individual contextual, developmental, and biological characteristics and temporal aspects (Tong & An, 2024, p. 3).

Although Bronfenbrenner mentioned that the latest theoretical model (i.e., PPCT) developed was the most appropriate (Bronfenbrenner & Evans, 2000), this study employed the earlier Bronfenbrenner socio-ecological model because it was pragmatic and aligned with the research framework. The study's research objectives primarily focused on socio-ecological factors and their relationships with self-regulation. Specific aspects of the new model, such as the personal construct (i.e., demand characteristics) and the time construct, were unrelated to the study objectives. Hence, the defining properties of the PPCT model were not fulfilled (Bronfenbrenner & Morris, 2006). Demand characteristics of a person refer to a person's age, gender, physical appearance, and so on. On the other hand, the time construct is further divided into micro-, meso-, and macro-time, whereby each depends on the time duration of a particular activity (Tong & An, 2024).

In their review paper, Eriksson et al. (2018) aimed to understand the application of Bronfenbrenner's socio-ecological model in studies that claimed to have adopted the model, regardless of the specific version used. Only two of the 16 studies used the more recent socio-ecological model, i.e., PPCT. The majority of the studies used the model to understand the socio-ecological factors that go beyond individual risk factors to understand their research outcomes of interest, for example, parenting (Grant & Guerin, 2014), bullying (Huang et al., 2013), school shootings (Hong et al., 2010), and sexual assault (Campbell et al., 2009). Many did not attempt to highlight the interactions within and between the systems in the model, which

Bronfenbrenner emphasised in his earlier writings (Eriksson et al., 2018). Eriksson et al. (2018) believe that the value of any theory or knowledge lies in its practical usefulness and applicability. They concluded that "studies using early concepts of Bronfenbrenner's theory, by considering interactions within and between different ecological systems, can come up with valuable results for guiding public mental health interventions" (Eriksson et al., 2018, p. 429).

According to Bronfenbrenner's ecological systems theory, humans constantly interact with their immediate environment, which extends to the larger social contexts in which they exist and live. The environment, according to Bronfenbrenner (1977), is "a nested arrangement of structures, each contained within the next" (p. 514). These structures are divided into *microsystem, mesosystem, exosystem,* and *macrosystem* (see *Figure 1* below), and their interpretations (Jackman et al., 2022; Crawford, 2020; Bronfenbrenner, 1977) are described below:

a) *Microsystem*

- *Microsystem* refers to the dynamics between a person and their immediate environment (e.g., home, school, workplace, etc.), including the people involved (e.g., family members, teachers, colleagues, etc.). It also refers to the roles, interpersonal relationships, and activities in a person's immediate environment
- Includes:
    i) The individual's personality, temperament, and beliefs
    ii) The people with whom the individual has regular contact

b) *Mesosystem*

- *Mesosystem* refers to the interrelations among microsystems in an individual's life, such as interactions among family, church community, workplace, etc.
- The inter-relationship between and among the microsystems makes up the mesosystem layer

c) *Exosystem*

- *Exosystem* refers to other social structures (e.g., government agencies, mass media, transportation facilities, etc.) that affect a microsystem involving the person directly or indirectly
- It also refers to the relationship between and among different microsystems in the individual's life, like in the mesosystem, but at least one of the microsystems does not directly involve the individual concerned; the factors involved may include those other than the ones in the microsystem, e.g., welfare policy, housing policy, mass media, etc.

d) *Macrosystem*

- *Macrosystem* refers to the explicit or implicit "laws, regulations, and rules" (Bronfenbrenner, 1977, p. 515) that govern cultural or subcultural institutional patterns (e.g., social, economic, educational, legal, political, etc.)
- It also refers to one's cultural and societal function that may influence the relationships between and among the individual's micro-, meso-, and exosystems

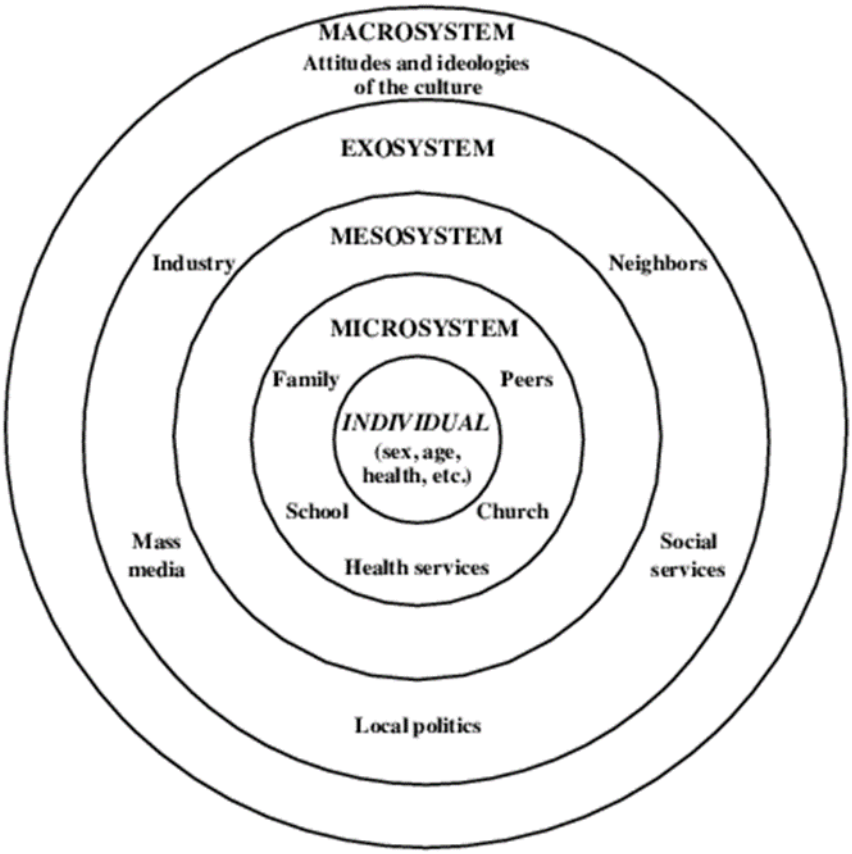


Figure 1: Bronfenbrenner's socio-ecological systems model [Retrieved from Murnane et al., 2018]

2.1.3.1 *Socio-ecological Interpretation in the Malaysian Cultural Context*

Within the Malaysian context, socio-ecological influences on self-regulation are shaped by culturally relevant factors, for example, family structures, religious or spiritual beliefs and practices, and social norms. Interpreting the socio-ecological model through the Malaysian context demonstrates that self-regulation is not solely individual capacities, but is shaped by culturally influenced relationships, institutions, and societal values. These contextual socio-ecological conditions help in understanding the resilience processes involved, as elaborated in subsection 2.1.4 below.

a) Microsystem

At the microsystem level, family structures remain the primary influence shaping individuals' cognitive, emotional, and behavioural responses to everyday life experiences. This observation is largely due to Malaysian society being characterised by collectivist orientations, in which family interdependence, filial responsibility, and relational harmony are prioritised over individual autonomy (Abdullah & Pederson, 2003; Hofstede, 2001). In the context of mental health challenges, family members often assume responsibilities such as caregiving, monitoring, and decision-making, which can then influence individuals' self-regulation strategies, for example, medication adherence, lifestyle management, and emotional regulation (Chong et al., 2013). Religious and spiritual practices such as prayer, ritual observance, and moral interpretation of suffering, operating at the microsystem level, show how individuals make meaning of their unpleasant life experiences and subsequently learning to deal with them constructively (Krauss et al., 2006).

b) Mesosystem

The mesosystem in Malaysia, in the context of the mental health system, is characterised by the interaction between key microsystems, particularly families, healthcare services, and religious institutions. Help-seeking behaviour for mental health difficulties is often mediated by family advice and religious or spiritual consultation prior to engaging with formal mental health services (Razali & Najib, 2000). Religious or spiritual and community leaders may act as informal gatekeepers, thus influencing how professional care is sought and treatment recommendations are followed (Razali & Yassin, 2008). Therefore, a good and supportive coordination between family members and healthcare providers may benefit the treatment engagement and adaptive

regulation necessary to maintain well-being, not at the expense of discounting the role of religion or spirituality in the individual's life.

c) Exosystem

Broader institutional arrangements that affect individuals' self-regulation capacity operate as the exosystem level in Malaysia. One example of such influence is the employment policies that promote mental health awareness and interventions for those who may benefit from them (WHO, 2022). Although individuals may not directly interact with policy-making institutions, the conditions they set can influence the resources available for their mental health support, which in turn affects their self-regulation.

d) Macrosystem

Malaysian cultural values, social norms, and moral frameworks are some of the components at the macrosystem level. The practice of collectivist norms emphasising family honour, social reputation, and personal restraint, may lead to mental health stigma (Lauber & Rossler, 2009). These cultural expectations can influence self-regulation behaviour when it comes to dealing with unpleasant life circumstances, including mental health-related challenges. Spiritual and religious worldviews adopted in a particular society at the macrosystem level inform its understanding of health and illness, challenges, suffering, and recovery, in which these experiences are likely framed as moral and spiritual rather than merely medical conditions (Koenig, 2012).

2.1.4 Resilience

Resilience, just like socio-ecology, is a concept that covers many subjects and topic areas of interest. The origin of the field that initiated the study of resilience has been contested by many, including ecologists and physicists. Unsurprisingly, inconsistencies have arisen in terminology and meaning regarding the concept of resilience (Layne et al., 2007). Many

believe that the mental health disciplines of psychology and psychiatry pioneered the study of resilience (Manyena, 2006). According to Ungar et al. (2013), resilience studies began in the 1990s, following the interest of human developmentalists in how disadvantaged children grew up positively despite experiencing adverse life circumstances. Subsequently, the study of resilience has extended across the human lifespan (Zautra et al., 2010). The resilience definition adopted in this study is primarily related to an individual's ability to manage their well-being by seeking and utilising available resources congruent with their contextual situation (Ungar, 2008). In human experiences, resilience begins with initiating context-relevant responses during life-related challenges (Kent et al., 2014). These responses are crucial in helping individuals build their capacity to thrive in challenging situations (Troy & Mauss, 2011). Individuals' actions during stressful situations differ due to the variable human experiences. Resilience development involves self-regulatory responses that improve one's ability to deal with adversity and achieve the intended outcome in a particular situation (Schwager & Rothermund, 2014). Importantly, contemporary resilience literature increasingly emphasises resilience as a non-linear and temporal process, i.e., dynamic, developmental process, rather than a stable trait or end-state, especially in the context of adverse life situations such as mental health struggles, where periods of stability and disruption can happen across the life course (Kent et al., 2014; Zautra et al., 2010) Therefore, mental health resilience here will refer to the living adaptation and navigation through using and negotiating the resources available to manage and improve their quality of life. As such, resilience is better understood as an explanatory construct, in which individuals are seen as managing to sustain or regain functioning, rather than as a descriptive label applied to individuals who are thought to be coping well (Luthar et al., 2000).

As described above, resilience is perceived as a process which is developed through constant interaction between the individual's regulatory capacities and the availability and

accessibility of culturally relevant resources (Ungar et al., 2013; Ungar, 2011). This is particularly relevant in the area of mental health, where well-being is not limited to the individual's efforts but is also affected by the existing support system and culturally shaped norms about mental health beliefs and help-seeking behaviour (Southwick et al., 2011).

In mental health-related issues, resilience development involves multiple psychological and social factors. For example, several factors have been identified as relevant to resilience in trauma survivors, including active coping skills, supportive social networks, and cognitive flexibility (Iacoviello & Charney, 2014). These factors were comparable to those seen in the bipolar disorder population in a study by Echezarraga et al. (2014), in which resilience was practised through various means, for example, cognitive processes (e.g., personal reflection), using behavioural strategies (e.g., medication adherence, healthy lifestyle), and finding support (e.g., family, friends). Over time, these resilience-building processes may consolidate into a more stable adaptive function, in which individuals can align their goals with the resources available (Ungar, 2011). To sustain resilience, it is important to maintain common protective life factors, such as stable relationships, community belonging, and healthcare access, which are relevant to ongoing life's adaptation (Masten, 2001). Therefore, individual efforts and environmental supports are important in conditions where stressors can recur and periods of symptom fluctuations may occur, which place higher demands on self-regulation (Rutter, 2012). On the other hand, resilience may be constrained when the resources are limited or culturally incongruent. For example, this situation happens when social contexts introduce risks such as stigma and barriers to help-seeking (Ungar, 2011). When the conditions required for stable adaptation are reduced, adaptive strategies to maintain well-being are likely to be impaired despite strong personal motivation (Rutter, 2012). As described above, the resilience process does not occur independently, but rather within a social and contextual framework (Echezarraga et al., 2019).

Fletcher and Sarkar (2013) regarded resilience as the interaction between psychological processes and the context (i.e., social environment) within which stress is experienced. Schultze-Lutter et al. (2016) also, along these lines, held that the aspects that help conceptualise resilience are the "context, population, risk, promotion (or protective) factors, and outcome" (p. 460), which are factors within the psychosocial-spiritual domain. On the other hand, other researchers, for example, Frangou (2019), looked at resilience from the perspective of adaptive brain changes in that resilient but high-risk individuals for bipolar disorder displayed unique neuroimaging characteristics compared to those with bipolar disorder and healthy individuals, such as a larger volume of cerebellar vermis and increased connectivity at prefrontal regions during task performance. Resilience has also been researched from the spiritual or religious viewpoint, as observed in a literature review by Jackson et al. (2022). Resilience, therefore, is a concept that can be applied in various contexts.

2.2 Study Context

Malaysia is a multiethnic and multicultural country located in Southeast Asia. Its population is mainly Malay, followed by Chinese, Indian, and other ethnicities (Chai & Hamid, 2015). The Malaysian mental health system was recorded to begin in the early 19th century when the British regime established three asylums for psychiatric and training purposes. The first asylum was set up at the Penang Hospital. The mental health system in Malaysia has continued to grow since its independence, and up to this day. Public, private, and non-governmental organisations provide mental health services in Malaysia. The integration of such services among primary, secondary, and tertiary care is well-established. Malaysia's mental health system is governed by the Mental Health Act 2001 and regulated by the Mental Health Regulation 2010 (Ministry of Health Malaysia, 2020). The empirical study presented in this thesis (see Chapter 4) was conducted at the psychiatric clinic of Penang General Hospital in

the northern state of Penang, Malaysia, which is staffed by psychiatrists, psychologists, medical officers, nurses, pharmacists, and health assistants.

2.3 Conceptual Relevance of the Thesis

Bipolar disorder has been associated with significant impairment in social and occupational functioning (Sadock et al., 2015). Moreover, functional impairment could also lead to a worsening of the illness condition. Functional impairment can be persistent even during the euthymic state (Judd et al., 2005) or between acute episodes when the symptoms are minimal (Sanchez-Moreno et al., 2009; Strakowski et al., 2004). Given the importance of functioning in managing life activities, many measurement tools, for example, the Global Assessment of Functioning (GAF) (American Psychiatric Association, 1994), the Functioning Assessment Short Test (FAST) (Rosa et al., 2007), and the Social and Occupational Functioning Scale (SOFAS) (Goldman et al., 1992), have been developed for this so that appropriate interventional support can be provided to improve functional outcomes in bipolar disorder (Akers et al., 2019). Various intervention strategies have been developed to achieve symptom recovery and improve functioning with meaningful living (Bonnin et al., 2019). Some well-known psychosocial treatments for bipolar disorder that emphasise individual empowerment and proactivity, for example, Cognitive Behavioural Therapy (CBT), Interpersonal and Social Rhythm Therapy (IPSRT), family therapy, and psychoeducation, have utilised self-regulation techniques to improve one's condition (Reinares, 2017). They have been shown to improve symptom recovery in bipolar disorder (Oud et al., 2016; Miklowitz et al., 2007).

Self-regulation is a dynamic and ongoing process in dealing with illness control, the psychosocial consequences, and the lifestyle implications of the illness (Barlow et al., 2002). Self-regulation involves engagement from various social structures, such as one's family,

community, and healthcare system, with the individual (Lansing & Berg, 2014), as explained in the socio-ecological perspective. As these aspects differ across geographical contexts, researchers have previously suggested the need for further research in different socio-environments (Maassen et al., 2018; Zeidner et al., 2000). Effective illness management is based on a holistic and integrated understanding of personal background experiences (Dixon et al., 2001). Therefore, the knowledge of the experiences of self-regulation in bipolar disorder in relation to the existing socio-ecological context among the local population here in Malaysia is essential, and this is the first such study.

Social ecology has been used in mental health for over half a century (Ungar, 2012). It is an adaptation from the work of Bronfenbrenner (1974) that emphasises the multilevel interdependent ecological influences on human behaviour (Bronfenbrenner, 1977). This knowledge leads us to the conception of the social ecology of mental health. The "dynamic interrelatedness among personal and environmental factors" (Reupert, 2017, p. 105), as described in the socio-ecological systems theory above, has been observed in various contexts related to mental health, for example, resilience from the perspective of mental health and illness (Angeler et al., 2018; Ungar, 2012). However, a thorough understanding of the influence of context-specific social-ecological factors on human resilience is lacking, which has led to calls for further research from researchers across different disciplines. Luthar et al. (2000) have advised that future research on resilience should be directed at exploring how an individual's resilience from an at-risk group is affected by the relevant factors in different contexts and environments, while a more recent study suggested that future research focussed on resilience from a socio-ecological perspective of a local context (Arat, 2014).

The central principle of the social ecology of mental health resilience in bipolar disorder relies on the interactions between the individuals and their environments rather than their innate characteristics alone as the determining factor (Angeler et al., 2018; Ungar, 2011). These

interactions enable individuals to access resources that promote their well-being, while simultaneously negotiating for and utilising them appropriately and meaningfully (Ungar, 2012). This way, disadvantaged individuals will not be blamed for not thriving when opportunities to access the essential resources necessary for their development are scarce (Ungar et al., 2013). Social ecology influences coping choices during adversity, leading to either positive or negative adaptation, as observed in a study by Ng-Mak et al. (2004). In their study, children who had experienced community violence were interviewed with one of their parents to examine the children's coping process. The results obtained highlighted problematic adaptation, as the children became aggressive (i.e., behavioural maladaptation) but experienced less psychological distress (affective adaptation). This latter form of coping helped them maintain a sense of well-being.

The following chapter presents the literature review in the form of a scoping study to determine the extent of research on self-regulation in bipolar disorder, before exploring individuals' experiences with self-regulation in bipolar disorder

2.4 Conceptual Framework of the Study

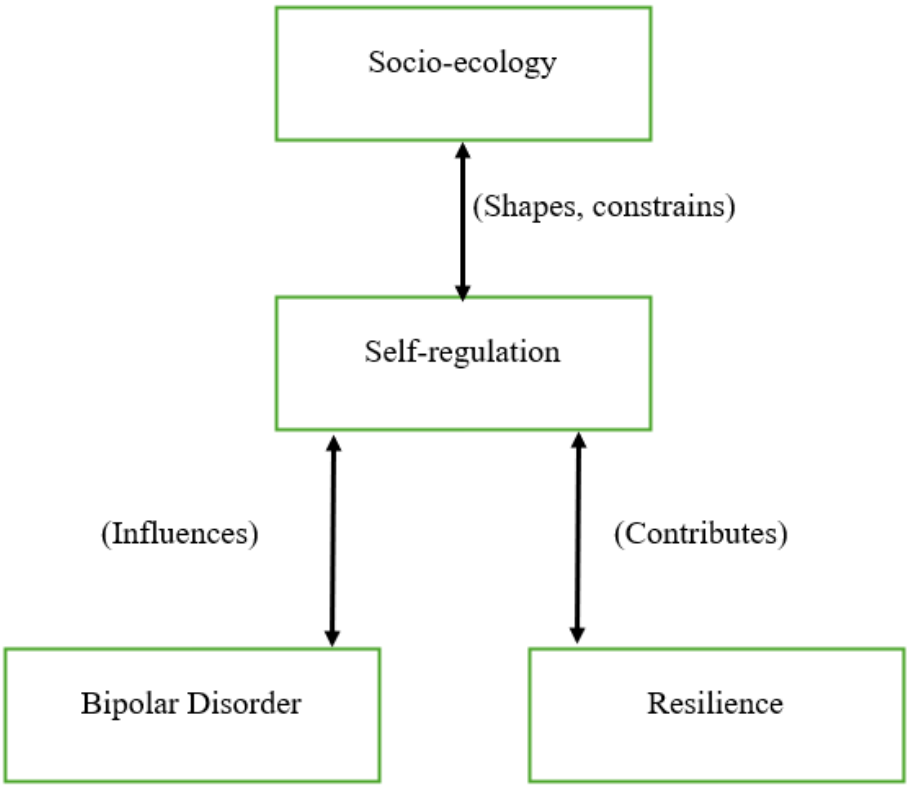


Figure 2. Conceptual Framework of the Study

This conceptual framework integrates the study's constructs: self-regulation, socio-ecology, resilience, and bipolar disorder. The framework was developed to address the study's aim of understanding how individuals regulate their well-being over time within a chronic mental health condition, i.e., bipolar disorder, while accounting for contextual and structural influences. At the core of the framework is self-regulation, which is perceived as an active, ongoing process through which individuals manage themselves in response to internal and external demands.

2.4.1 Self-regulation and Socio-ecology

The framework places socio-ecology at a higher level, where it can both shape and constrain self-regulation. Drawing on socio-ecological theory, individuals' self-regulation can

be influenced by multiple, interacting layers, including family systems, community structures, and cultural norms. These layers may affect the forms of self-regulation that are possible and sustainable. The bidirectional relationship observed in the framework assumes that, while socio-ecological contexts shape and constrain self-regulation, self-regulatory practices may also influence engagement with and adaptation to these contexts over time.

2.4.2 Self-regulation and Bipolar Disorder

In this framework, bipolar disorder is perceived as a condition that influences the self-regulation behaviour of an individual. Bipolar disorder is seen as ongoing experiences related to the condition (e.g., mood instability, energy changes, cognitive shifts) that influence their regulatory efforts. The bidirectional relationship reflects that while bipolar disorder influences self-regulation, the self-regulation practices may also shape the individual's experiences while living with bipolar disorder (e.g., symptom control, help-seeking behaviour).

2.4.3 Self-regulation and Resilience

Resilience is conceptualised in this framework as an ongoing, dynamic process that occurs through self-regulation within socio-ecological contexts. Self-regulation is therefore understood as a mechanism that shapes resilience development. The bidirectional relationship between them assumes that continuous engagement of self-regulatory processes contributes to individuals' capacity to maintain well-being. At the same time, resilience is not viewed as an endpoint but is continually influenced by self-regulatory processes.

CHAPTER 3 – LITERATURE REVIEW

(UNDERSTANDING SELF-REGULATION AMONG INDIVIDUALS WITH BIPOLAR DISORDER FROM A SOCIO-ECOLOGICAL PERSPECTIVE: A SCOPING REVIEW)

3.1 Background

Bipolar disorder is a form of mood disorder which manifests in recurring episodic mood disturbances that affect psychosocial functioning (Marwaha et al., 2013), physical health, and quality of life (Young & Grunze, 2013). To be diagnosed with bipolar disorder, the episodic mood disturbances must meet the diagnostic criteria from either the Diagnostic and Statistical Manual of Mental Disorders (DSM) or the International Classification of Diseases (ICD). Although the diagnostic classification is helpful to clinically identify bipolar disorder and its access to treatment, it does not fully explain the individuals' life experiences with bipolar disorder. As such, the impact of bipolar disorder goes beyond symptom presentation, whereby it also affects finance, employment (Maassen et al., 2018), self-care, and relationships (Sadock et al., 2015). At a population level, bipolar disorder is ranked the fifth leading cause of disability-adjusted life years (DALYs) for mental and substance use disorders (Ferrari et al., 2016).

While bipolar disorder experiences can be distressing for many, some report positive and uplifting experiences (Robinson et al., 2019; Lobban et al., 2012; Galvez et al., 2011; Rusner et al., 2010). Living well with life-challenging conditions depends on behavioural regulation to optimise individual and societal well-being, despite ongoing challenges, through the use of adaptive strategies (Moffitt et al., 2011; de Ridder & de Wit, 2006; Leventhal et al., 2016). In this sense, self-regulation is a foundation for managing bipolar disorder, as it

involves various individual and interpersonal processes in maintaining well-being, which require the regulation of one's cognition, emotion, and behaviour (Lansing & Berg, 2014). In bipolar disorder, these three aspects can be dysregulated (Sadock et al., 2015).

The application of self-regulation is aligned with each person's perception, influenced by personal, social, and cultural expectations (Trommsdorff, 2012), hence the relevance of their socio-environmental context. As such, Bronfenbrenner's socio-ecological model (1977), which highlights four socio-ecological levels (i.e., microsystem, mesosystem, exosystem, macrosystem), is crucial in human development and general behaviour. The socio-ecological model was used to categorise and describe the data on self-regulation behaviour gathered in this review.

Generally, microsystem refers to the dynamic relationships between the person and their immediate environment, mesosystem refers to the interrelations amongst the microsystems in the person's life, exosystem refers to the relationships among different microsystems in the person's life but one of the included microsystems does not directly involve the person concerned, and finally, macrosystem refers to the person's cultural and societal aspects that influence their micro-, meso-, and exosystems. A socio-ecological perspective has been widely adopted in mental health research, as the various layers of the system significantly influence mental health (Yu et al., 2024; Kelly & Coughlan, 2019; Marie et al., 2018; Kohrt et al., 2014).

Current literature on self-regulation in bipolar disorder has been developed through overlapping constructs, e.g., self-coping, self-management, and self-help. A number of studies have focused on areas within clinical recovery frameworks, such as medication adherence, symptom monitoring, psychoeducation, and relapse prevention (de Ridder & de Wit, 2006; Cameron & Leventhal, 2003). Other studies have also approached the psycho-behavioural aspects of self-regulation (Lansing & Berg, 2014; Giannessi, 2012). While those studies have

provided valuable insights, they generally focus on intrapersonal processes and often treat socio-environmental influences as secondary.

The importance and relevance of interpersonal relationships and social factors in affecting one's self-regulation in bipolar disorder have been increasingly acknowledged (Todd et al., 2012; Murray et al., 2011). Even so, these factors are often examined independently rather than within the multi-level framework, e.g., the socio-ecological framework, that explains their dynamic relationships. In addition, there have been various terminologies used interchangeably across studies, making it difficult to develop an integrated understanding of self-regulation in bipolar disorder. Therefore, there is a need for a comprehensive mapping of how self-regulation in bipolar disorder has been described across socio-ecological levels. A scoping study was chosen because the review question for this study was broad and conceptual (Koene et al., 2022), and the research area of interest was novel and had not been previously explored, whereby the aspect of the socio-environmental context of self-regulation in bipolar disorder is focussed on The primary objective of this scoping study was to examine "the extent, range, and nature of research activity related to the topic area" (Daudt et al., 2013, p. 2), which helped to "map the literature on a particular topic or research area and provide an opportunity to identify key concepts; gaps in the research; and types and sources of evidence to inform practice, policymaking, and research" (Daudt et al., 2013, p. 8), hence, a scoping review method was deemed appropriate (Peters et al., 2020). This scoping review (or scoping study) explored the existing literature to identify the extent, nature, and range of research about self-regulation among individuals with bipolar disorder in relation to their socio-environmental context. Self-regulation is generally defined by the behavioural actions individuals take to maintain their well-being in their socio-environmental contexts. Self-regulation in this review is treated as an umbrella construct encompassing strategies for cognitive, emotional, and

behavioural regulation in daily life. Any conceptually relevant terms that reflect self-regulatory processes are included.

The rationale and importance of this review are as follows:

1. To the researchers' knowledge, this is the first review of the current topic area (i.e., self-regulation among individuals with bipolar disorder from the socio-ecological perspective)
2. As different terminologies and diverse socio-ecological contextual backgrounds are used in self-regulation, a scoping review will help provide an overview of these aspects.
3. This scoping review will provide a coherent basis for more detailed research to better understand how self-regulation is involved in bipolar disorder.

3.2 Review Questions

The objective of this review is to find out how self-regulation among individuals with bipolar disorder in the socio-environmental context has been researched. To do this, several research questions were developed to guide the review:

a) In what specific socio-ecological systems has self-regulation been described to understand bipolar disorder?
b) In what specific socio-ecological systems have self-regulation-related challenges been described to understand bipolar disorder?
c) What other terms have been used that indicate self-regulation in individuals with bipolar disorder?
d) Which research methods have been used to study self-regulation in bipolar disorder?

3.3 Literature Review Methods

3.3.1 Review Approach

This scoping review adopted the six-stage process study framework established by Arksey and O'Malley (2005). It was informed by the updated modifications of Daudt et al. (2013), Levac et al. (2010), and the Joanna Briggs Institute (JBI) manual on scoping review evidence synthesis, as summarised in the work of Peters et al. (2020) and Pollock et al. (2023). This review provided comprehensive coverage of the available research on the topic area through "a narrative or descriptive account of available research" (Arksey & O'Malley, 2005, p. 30) by incorporating all available forms of research study or evidence. As the focus of this review was to identify the available research evidence on the topic area, rather than providing definitive evidence concerning a specific research question (Sucharew & Macaluso, 2019), the quality of the research studies included in the review was not the primary concern (Arksey & O'Malley, 2005). Therefore, a critical appraisal of the studies included was not performed in the scoping review, consistent with standard practice (Peters et al., 2020).

This scoping review was conducted in line with the requirements for procedural and methodological rigour throughout the review process (Pham et al., 2014), where the study framework was comprehensively outlined to indicate the transparent nature of this review process. Therefore, the review protocol was pre-registered with *Figshare*, as recommended by the JBI (Peters et al., 2020; Pollock et al., 2023), and made publicly available (Registration: 10.6084/m9.figshare.24084372). The findings were reported using the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews) checklist (Tricco et al., 2018).

Knowledge of self-regulation in bipolar disorder is limited, particularly in relation to the socio-ecological context. Therefore, this study used a hybrid deductive-inductive approach

to data analysis, whereby data were deductively extracted into a socio-ecological template (see *Appendix 1*), and data-driven codes were inductively generated (Vaismoradi et al., 2013; Elo & Kyngas, 2008). A study addressing the topic of abortion has previously employed the hybrid deductive-inductive approach sequentially in a successful scoping review (Sorhaindo & Lavelanet, 2022). However, the current approach was done concurrently and iteratively, as further described below. This approach enabled the review to utilise an existing theoretical framework and simultaneously generate new data from the literature, thereby enhancing understanding of the phenomenon of interest (Sorhaindo & Lavelenet, 2022).

3.3.2 Evidence Sources (Databases Used)

Several electronic databases were utilised for the literature search. In a study by Lohonen et al. (2010) to determine the coverage of mental health topics in electronic databases, PubMed, PsycINFO, and Web of Science identified 97% of the relevant mental health literature, although some of the articles could also be retrieved using four other databases (CINAHL, Elsevier ScienceDirect, EBSCO-host, MEDLINE). Additionally, CINAHL and MEDLINE have been recognised as two prominent databases for identifying articles related to mental health (Collier & Grant, 2018). Therefore, the electronic databases used in this review were PubMed, PsycINFO, Web of Science, CINAHL, and MEDLINE. Databases such as EBSCO and Elsevier ScienceDirect were not included, as their inclusion would likely be insignificant given the extensive literature coverage provided by the other databases mentioned above.

Besides using online databases, attempts to locate literature articles were made using other strategies, such as reference list searching, citation tracking, berry-picking, and hand- or author searching (Aveyard et al., 2016). Several strategies were adopted to ensure the search was comprehensive, including retrieving literature from several prominent databases, applying

'search strategy' and 'sensitive search' tests, and obtaining relevant advice from an information technologist. Employing the aforementioned strategies resulted in the discovery of additional articles that would have otherwise been overlooked.

3.3.3 Search and Selection Strategies

3.3.3.1 *Search Terms*

The search terms relate to two main concepts used in this review: bipolar disorder and self-regulation, ensuring comprehensive retrieval of the literature relevant to the topic of interest. The relevant subject terms for each concept were identified through initial readings in the literature search, which involved a scoping search for relevant terminologies from published articles on behavioural strategies related to self-regulation, particularly in the mental health aspect (Baines & Wittkowski, 2013; Boekaerts et al., 2000). The terms were grouped accordingly before the literature search began. An information technologist from Lancaster University assisted in developing the search strategy.

The literature search followed a non-linear process whereby the search strategies evolved as the literature was identified (Chapman et al., 2009; Aveyard et al., 2016). New terms discovered from the data sources of the initial search and those identified along the way were added to the collection of search terms for the second search cycle (see subsection 3.6.4 for the new terms related to self-regulation). This practice made the search comprehensive because the terms not used in the initial search were incorporated into the second search to identify additional potential articles to be included in the review. The list of search terms for the overall search, i.e., searches 1 and 2, and the electronic search strategies for all databases are presented in *Appendix 2.*

3.3.4 Eligibility Criteria for the Sources of Information

The literature search process was conducted iteratively and reflexively, where the outcome informed each step, which in turn informed the next step. Where necessary, revisions were made to ensure the review was comprehensive and rigorous (Arksey & O'Malley, 2005). The inclusion criteria were based on discussions with an information technologist and the researcher's two supervisors at Lancaster University, following a pilot search.

The inclusion criteria were:

a) Only English and Malay language articles were included, as these are the languages in which the researcher is fluent
b) Studies which included participants of any socio-demographic position who had a diagnosis of bipolar disorder
c) Where a study had a mixed sample, the data from the bipolar group must be separately identifiable
d) Studies reporting self-regulation or its equivalent means among individuals with bipolar disorder in the socio-environmental context[1]
e) Articles from all publication dates
f) Studies published in peer-reviewed journals
g) Articles from all research methodologies were included
h) Research articles accessible through online databases (excluding grey literature)
i) Extractable data that were relevant to answering research questions

The exclusion criteria were:

a) Abstract-only articles
b) Grey literature

[1] *[This criterion means that empirical articles about individuals with bipolar disorder who engaged with self-regulation (or its equivalent) activity (-ies) in their socio-environmental context (any level of Brofenbrenner's system model) to improve their condition will be included.]*

c) Interventional studies

d) Studies reporting self-regulation as part of a treatment strategy

e) Study protocols or guidelines

f) Papers on questionnaires or treatment development, or validation

3.3.4.1 *Rationale for the Eligibility Criteria for the Sources of Information*

Articles in English or Malay were accepted for review, reflecting the researcher's proficiency in both languages. After a discussion with the information technologist, it was decided that the selection of potentially relevant studies for review should be as inclusive as possible; therefore, the eligibility criteria set for specific areas were more 'lenient' or general rather than 'restrictive' or limiting. These areas included the research participants' socio-demographic characteristics, the publication dates of the articles, and the research methodologies. Additionally, no limiters were applied in the database search. However, due to time and human resource limitations, restrictions were set on the evidence sources from which the articles were retrieved. In other words, only articles published in peer-reviewed journals were accepted for review.

Grey literature referred to as “theses and dissertations, reports, blogs, technical notes, non-independent research, and documents published by government agencies, academic institutions, and other groups that are not distributed or indexed by commercial publishers” (Aromataris & Munn, 2020, p. 40), was omitted here as the topic of self-regulation in bipolar disorder has been established. Interventional studies, study protocols/guidelines, and articles on questionnaire development/validation were excluded because these studies had pre-set the self-regulation conditions to be used, which were in contrast to the purpose of this study, where the self-regulation strategies naturally applied by individuals with bipolar disorder were to be explored.

3.3.5 Study Assessment and Selection

A single reviewer conducted the review process. The decision to involve only one reviewer was made after efforts to find another independent reviewer were unsuccessful. After discussions with the reviewer's two supervisors and the information technologist, and consideration of practice in published scoping reviews (e.g., Mavragani, 2020), it was concluded that the scoping review could be done by one person as long as the review was conducted systematically, methodically, and comprehensively under close supervision by the supervisors.

The retrieved articles underwent initial title and abstract screening using the online systematic review software *Rayyan*. A pilot of 25 papers was reviewed by the reviewer and his supervisors, firstly to confirm the appropriateness of the inclusion and exclusion criteria for the review and secondly to ensure a good and acceptable review standard was practised. An agreement between the reviewer and his supervisors was indicated for at least 75% of the pilot papers screened before the eligibility criteria were deemed suitable for review (Peters et al., 2020). This cut-off point, which signifies satisfactory inter-rater agreement, is based on a study by Tricco et al. (2016) on the conduct and reporting of scoping reviews. If a lower agreement rate occurred between the reviewers, a discussion on the eligibility criteria would be held until a strong agreement was reached on their use, and another pilot test would be conducted (Tricco et al., 2016).

After the eligibility criteria were established, the remaining articles were screened. The articles that passed the title and abstract screening underwent full-text screening for inclusion in the review. The full-text screening was conducted using the online software Covidence. The literature search, assessment, and selection processes were summarised using the PRISMA

(Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flowchart (see *Figure 2* in subsection 3.4.1).

3.3.6 Data Management

3.3.6.1 *Data Extraction and Analysis*

Data from the eligible articles were extracted into a data extraction template, as shown in *Appendix 1*. An example of a completed data extraction form is in *Appendix 1a*. The template was piloted using three articles to suit the data extraction purpose of this study. It was then verified with the reviewer's supervisors before being confirmed for use. The data extraction process was conducted using Covidence. Bronfenbrenner's socio-ecological model, as explained above (and more detailed in Chapter 2), informed the categorisation of the self-regulation data into the template.

In this scoping study, a basic qualitative content analysis was conducted to answer the review questions, following the recommendations of the JBI Scoping Review Methodology Group (Pollock et al., 2023). The data analysis process in this scoping review was influenced by the general framework established by Pollock et al. (2023) and Elo and Kyngas (2008). Data extraction and analysis began with the preparation phase, during which each article was thoroughly read to understand the study's context. The articles were then re-read to identify the meaning units to be extracted by dividing texts into smaller, meaningful parts related to answering the review questions. Each meaning unit was given a code, which "can be thought of as a label, a name that most exactly describes what this particular condensed meaning unit is about" (Erlingsson & Brysiewicz, 2017, p. 94). The codes developed represented the information about socio-environmental contexts related to individual experiences of self-regulation and its related challenges in bipolar disorder, which were used to answer the review questions in this study.

The meaning units or codes with the same core meaning were categorised in the organising phase. A category thus contained codes that were "related to each other through their content or context" (Erlingsson & Brysiewicz, 2017, p. 94). This approach is consistent with the JBI recommendation of basic qualitative content analysis, which involves coding to categorise characteristics regardless of the study design (Pollock et al., 2023). A final attempt was made to re-read the extracted data from the categories at each socio-ecological level to ensure that data categorisation was consistent for all the included studies. To ensure the reliability of the data coding, the researcher discussed some of the generated codes and formed categories with his supervisors to achieve a shared understanding of the relevant concepts.

Frequency counts were then conducted for the codes in each category of the socio-ecological framework for each study and the studies overall (see *Tables 3* and *5* below*)*. No themes were generated from the extracted data, which is beyond the scope of a scoping review (Pollock et al., 2023).

3.3.6.2 Data Presentation

The results were organised into subsections, with each subsection corresponding to its review question in sequential order (see Section 3.2 for the review questions). The data were presented descriptively and graphically. To enhance the reader's comprehension and engagement with the results, the coding groups were arranged and described creatively and relevantly, as if following a 'storyline' (Vaismoradi et al., 2013). Additionally, direct quotations related to a topic of interest were included in the texts to make the data more relatable.

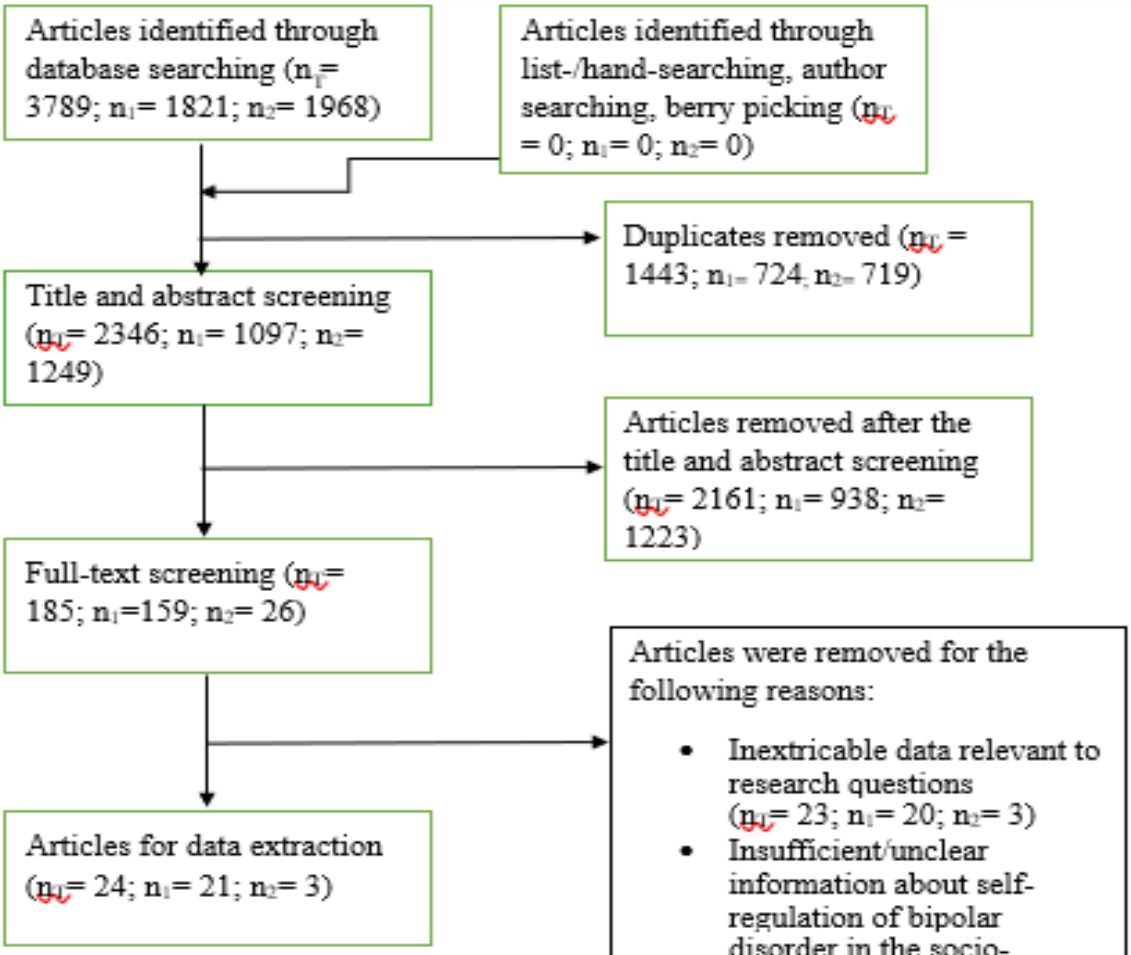
Each in-text citation for subsections 3.4.2 and 3.4.3 was done numerically (i.e., superscripts) to make the reading experience easier for the reader. Each numbered citation corresponds to the numbered reference in the References section.

3.4 Literature Review Results

3.4.1 Overview

The initial search returned a total of 1821 articles. After removing duplicates and articles that did not meet the inclusion criteria following abstract and title screening, 159 articles were selected for full-text screening. Of these, 21 articles were included for data extraction. In the second literature search, 1968 articles were retrieved, and 26 additional articles were accepted for full-text screening, of which three articles were included for data extraction. The reasons for articles exclusion during the review were: a) Inextricable data relevant to research question, b) Insufficient/unclear information about self-regulation of bipolar disorder in the socio-environmental context, c) No related study outcome on self-regulation of bipolar disorder in the socio-environmental context, d) Not a peer-reviewed article, e) Not an English or a Malay article, f) Not related to direct experiences of individuals with bipolar disorder, g) Not related to self-regulation of bipolar disorder in the socio-environmental context, i) Related to interventional or treatment-related strategies (see *Figure 2* for the reasons and number of articles excluded at each stage).

No new terms related to self-regulation were identified in the second search cycle. Eight authors were contacted to obtain further information about their research data, of whom two replied. However, the authors were unable to provide the necessary data for this scoping study. Therefore, none of their papers were included in the study. No new articles were identified through the reference list, hand searching, or citation tracking. Therefore, 24 articles relevant to the topic area were analysed from the two searches to answer the review questions (see *Table 2* below).



Note:

n_T: Total

n_1: Search 1

n_2: Search 2

Figure 2. PRISMA flowchart

Author(s); Year of publication	Aim of the study	Study design	Other related terms indicating self-regulation
Billsborough et al., 2014 [1]	To investigate the support needs of individuals with bipolar disorder during periods of mania and depression and their prodromes.	Qualitative	Self-management, Coping, Self-empowerment
Blixen et al., 2016 [2]	To explore coping strategies among non-treatment adherent individuals with bipolar disorder.	Qualitative	Coping, Self-management, Self-monitoring
Demissie et al., 2021 [3]	To explore illness experience, coping strategies, help-seeking practices, and consequences of illness among people with bipolar disorder and their family in rural Ethiopia.	Qualitative	Coping, Help-seeking, Self-management, Problem-solving, Self-care
Depp et al., 2009 [4]	To investigate self-management practices among people with bipolar disorder and the associations with their disability.	Quantitative	Self-management, Role management, Emotional management
Fernandez et al., 2014 [5]	To explore among a community sample of women with bipolar disorder their experiences of loss, coping, and	Qualitative	Self-determination; Self-surveillance; Self-efficacy; Self-help; Coping; Emotional regulation; Self-control; Autonomy

	recovery from their illness.		
Granek et al., 2018 [6]	To explore coping strategies of individuals with bipolar disorder and their partners.	Qualitative	Coping
Jupille et al., 2023 [7]	To explore the boundaries and determinants of well-being among individuals with bipolar disorder in France.	Qualitative	Self-management; Self-realisation; Self-care; Coping
Kwok, 2014 [8]	To show that a holistic approach is needed for bipolar disorder recovery	Qualitative	Self-management
Lam & Wong, 1997 [9]	To find out the effect of insight and coping strategies with bipolar prodromes on social functioning.	Quantitative	Coping
Mandla et al., 2017 [10]	To explore how individuals with bipolar disorder present the illness condition on the Internet.	Qualitative	Self-management
Mianji & Kirmayer, 2023 [11]	To examine help-seeking strategies and treatment experiences among individuals with bipolar disorder in Iran.	Qualitative	Coping, Help-seeking

Michalak et al., 2011 [12]	To explore self-management strategies by high-functioning individuals with bipolar disorder.	Qualitative	Self-management
Miller, 2008 [13]	To share the personal meaning of recovery.	Qualitative	Self-management
Murray et al., 2011 [14]	To determine self-management strategies by high-functioning individuals with bipolar disorder and to relate these in a clinical perspective.	Qualitative	Self-management, Self-monitoring, Self-awareness; Self-expertise
Nicholas et al., 2017a [15]	To investigate the use of smartphone apps for self-management among young adults with bipolar disorder.	Mixed-method	Self-management
Nicholas et al., 2017b [16]	To explore self-management strategies and related challenges among young adults with bipolar disorder.	Mixed-method	Self-management
Pollack, 1996a [17]	To investigate illness self-management among hospitalised individuals with bipolar disorder.	Qualitative	Self-management, Self-assessment, Self-initiation

Pollack, 1996b [18]	To develop a grounded theory of the self-management informational needs and activities of hospitalised people with bipolar disorder.	Qualitative	Self-management, Adaptive functioning, Learned resourcefulness
Suto et al., 2010 [19]	To examine self-management strategies used by high-functioning individuals with bipolar disorder	Mixed-method	Self-management, Self-awareness, Self-monitoring
Todd et al., 2012 [20]	To understand recovery and self-management among individuals with bipolar disorder, and to find out how their recovery can be supported.	Qualitative	Self-management, Coping
Tse et al., 2014 [21]	To explore expected possible selves and coping skills among young and middle-aged adults with bipolar disorder in Hong Kong.	Qualitative	Coping, Self-help, Self-management
Van den Heuvel et al., 2015 [22]	To understand the experiences of self-management of bipolar disorder among the service users.	Qualitative	Self-management, Autonomy, Self-determination
Vierthaler & Elliott, 2022 [23]	To provide an understanding of	Qualitative	Help-seeking

	the lived experience of a psychologist with a mental health issue.		
Wang et al., 2009 [24]	To understand self-management by New Zealand Chinese individuals with bipolar disorder in their condition to regain and maintain wellness.	Qualitative	Self-management, Independence, Autonomy

Table 2: Summary table of included papers (Note: Superscripts are the numbered citations used in sections 3.6.2 and 3.6.3)

3.4.2 Review Question 1: In what specific socio-environmental contexts has self-regulation been described to understand bipolar disorder?

Two hundred seventy-nine codes representing self-regulation in bipolar disorder were identified and designated into one of the five socio-ecological layers. The majority of the codes came from the individual level, followed by the microsystem, exosystem, mesosystem, and macrosystem levels (see *Table 3* below).

Socio-ecological level	**Number of codes**
Individual	194
Microsystem	46
Mesosystem	10
Exosystem	23
Macrosystem	6

Table 3: Distribution of codes across the socio-ecological levels

These codes were integrated into 45 categories across the five socio-ecological levels: 29 from the individual level, six from the microsystem level, four each for the mesosystem and the exosystem, and two from the macrosystem level (see *Table 4* below) (see *Appendix 3* for the references used for the categories developed across the socio-ecological levels). These

categories contained the factors that the research participants believed contributed to their self-regulation in bipolar disorder.

Socio-ecological level	**Categories**
Individual	i) Self-awareness/evaluation ii) Self-initiation iii) Self-administration iv) Self-learning v) Self-care vi) Self-reflection vii) Self-reminder viii) Self-monitoring and action ix) Self-distraction x) Self-help/Enjoyment/Relaxation activities xi) Self-discipline xii) Self-acceptance xiii) Religious beliefs/practices xiv) Self-adjustment xv) Self-control xvi) Self-avoidance/isolation xvii) Positive self/mindset cultivation xviii) Self-engagement xix) Self-conviction xx) Treatment adherence xxi) Self-planning xxii) Self-exploration xxiii) Self-determination/perseverance xxiv) Self-responsibility/accountability xxv) Self-independent xxvi) Self-productivity xxvii) Self-aspiration xxviii) Self-disclosure xxix) Self-forgiveness
Microsystem	i) Social (family/friends) support ii) Healthcare providers' support iii) Workplace support iv) Mental health peer support v) Other service providers' support vi) Supporting/helping others
Mesosystem	i) Involvement from family and healthcare providers ii) Interaction and engagement in support groups iii) Involvement from family and friends

	iv)	Involvement from family and spiritual leaders
Exosystem	i) ii) iii) iv)	Influence from the Internet/cyberspace/social media Involvement and engagement with work-related organisational community Influence from caregiver's work/job Involvement of large organisational/community support services
Macrosystem	i) ii)	Religious ideology Cultural norms/practice

Table 4: Self-regulation contexts in bipolar disorder

3.4.2.1 *Summary of findings of socio-environmental contexts described to understand self-regulation in bipolar disorder*

a) Individual level

This level describes how the participants managed their bipolar disorder by employing certain methods or strategies. All 24 papers in the review described self-regulation at the individual level, and 29 relevant contexts were identified, as described below.

The approaches of self-acceptance (xii) [2, 3, 5-7, 10, 12, 14, 15, 17, 18, 20, 23] (n = 13) and self-disclosure (xxviii) [8, 12, 15-17, 23, 24] (n = 7) of the illness were reported to be important aspects of allowing the individual to have a positive perspective on the bipolar disorder. Also, one study reported that being self-convinced (xix) [3] (n = 1) of the illness's existence allowed the individual to engage in behavioural change, such as biomedical treatment, to improve the illness condition.

In terms of illness management, several studies stated that the approaches of self-awareness and self-evaluation (i) [1-3, 5, 7-9, 14, 17-19, 22] (n = 12) of the illness symptoms were perceived by the participants to help them to be more attentive to their illness condition; ["If I

feel like I'm enjoying [the party] a bit too much and I'm a bit too conversational, I feel like it's a warning sign for me. I have to go, because it trips in...that can trigger an episode" (Billsborough et al., 2014, p. 12)]. Another closely related aspect being reported was self-monitoring (viii) [2, 9, 10, 14-16, 19, 20, 22] (n = 9), which was seen as necessary for the individual to check his/her mood condition regularly. Other reported behaviours that were perceived to be important in managing illness were treatment adherence (xx) [4, 15-18] (n = 5) and self-reminders (vii) [2, 9] (n = 2) to take medication and to control behaviour. The ability to self-administer (iii) [1] (n = 1) and self-adjust medication (xiv) [1, 2] (n = 2) was also described as useful in managing the individual's illness; ["I got in the habit of breaking them in half (pills), and I take them that way and it made it easier for me to deal with it...Now, I can deal with them..." (Blixen et al., 2016, p. 1331)].

Several studies noted that the changes initiated by the individual, i.e. self-initiation (ii) [1, 3, 4, 5, 10, 14-18, 20, 22] (n = 12) and self-learning (iv) [1-3, 6, 8, 10, 13-18, 20-23] (n = 16) had beneficial impacts on his/her well-being; ["...So what I've noticed is that when I have a bit more outward kind of motivation and movement and being involved in the world in helping other people...that's really helpful in terms of keeping balanced in my own life" (Murray et al., 2011, p. 102)]. Besides that, being responsible and accountable for his/her condition, i.e. self-responsibility/accountability (xxiv) [6, 7, 12, 13, 20, 24] (n = 6) is another self-regulation approach of bipolar disorder highlighted in a few studies. Other individual approaches being reported included having self-discipline (xi) [2, 4, 6, 9, 14, 17-19] (n = 8), self-determination and perseverance (xxiii) [5, 17, 18] (n = 3), and self-control (xv) [2, 3, 5, 9, 17, 19, 22, 24] (n = 8), being self-independent (xxv) [7] (n = 1) and self-productive (xxvi) [7] (n = 1), and being explorative by trying out new roles, i.e., self-exploration (xxii) [4, 15, 16] (n = 3).

Self-care (v) [2, 6, 8-11, 13-17, 19-22] (n = 15) activities in the form of healthy habits, such as diet control, physical exercises, and avoiding smoking, drinking or drug use, were reportedly

used by individuals with bipolar disorder. Further reported beneficial behaviours related to self-regulation in bipolar disorder were consistent with psychological approaches to personal management, such as self-reflection (vi) [2, 4, 7, 14-16, 19, 21, 22] (n = 9), cultivating a positive mindset, i.e., positive self/mindset cultivation (xvii) [2, 4-7, 10, 12, 13, 17, 18, 20, 24] (n = 12), setting life aspirations or goals, i.e., self-aspiration (xxvii) [7, 8, 17, 21, 24] (n = 5), self-engagement (xviii) [2, 6, 7] (n = 3), self-planning (xxi) [4, 9, 14-17, 19, 20, 21, 23] (n = 10), self-forgiveness (xxix) [19] (n = 1), and participated in useful or self-help activities (x) [2, 4, 6, 7, 9, 14-16, 19-21] (n = 11) such as meditation or a relaxing walk; ["Often if I'm in a bad mood, unwell, or tense, I'll go for a walk. On the way back, I realize that something has given way" (Jupille et al., 2023, p. 5)]. While many had used active psychological approaches to managing their life with bipolar disorder, several studies reported that some individuals used more passive ones, such as self-avoidance or isolation (xvi) [2, 3, 6, 9, 15-17, 20] (n = 8) and self-distraction (ix) [2] (n = 1) during illness, which similarly had helped them cope, nonetheless; ["I just stay home and avoid stressful situations...I just stay to myself..." (Blixen et al., 2016, p. 1332)]. Finally, some studies also reported that religious beliefs and practices (xiii) [2, 3, 6, 8, 17, 18, 21, 24] (n = 8) helped some individuals to stay well; ["Every morning...read a page of "Daily Bread" or "In Touch with Life," something spiritual...Just peace and thinking about how good the Lord is..." (Blixen et al., 2016, p. 1332)].

b) Microsystem level

This level describes the roles, interpersonal relationships, and activities in the person's immediate environment (Jackman et al., 2022; Crawford, 2020). All but one study (n = 23) in this review described the microsystem aspects of self-regulation in bipolar disorder. Six relevant contexts were identified from those studies. Many studies have reported that the contexts of self-regulation at this level involve the individuals' interactions with and the support they receive from the people around them.

One context commonly reported was their interactions and support from their family and friends, i.e., social (family/friends) support (i) [1-3, 5-9, 12-17, 19-24] (n = 20); [“I think my husband is really important because he will notice a depressive episode coming on before I will...He makes me aware of it..." (Murray et al., 2011, p. 101)]. Interactions with the healthcare providers, i.e., healthcare providers’ support (ii) [1, 2, 4, 8, 9, 11, 15, 17-19, 21, 22, 24] (n = 13), were another context that was reported in relation to self-regulation in bipolar disorder; ["I see my psychiatrist one or two times a year. And he's available by email or phone anytime I feel that it's needed. So I have that as a resource..." (Suto et al., 2010, p. 81)].

Other reported contexts included mental health peer support (iv) [7, 13-18] (n = 8), workplace support (iii) [6, 19] (n = 2), and support services from assistance centres, i.e., other service providers’ support (v) [12] (n = 1). Supporting and helping others (vi) [8, 17, 18] (n = 3) experiencing the same struggles was also a reported self-regulation context.

c) Mesosystem level

This level describes the relationships between and among different microsystems in an individual’s life, and their interrelationships comprise the mesosystem layer (Jackman et al., 2022; Crawford, 2020). Only nine out of 24 studies described the contexts related to the mesosystem aspect of self-regulation in bipolar disorder. Four contexts were identified at this level.

The involvement of and the interactions between the family or carer and healthcare providers, i.e., involvement from family and healthcare providers (i) [1, 6, 22] (n = 3), in the health of the individual with bipolar disorder, was reported as relevant to their well-being in the context of self-regulation; ["...my psychiatrist and partner supported me by putting faith in me. Because of this confidence I was given, I was careful not to break our mutual trust" (Van den Heuvel et al., 2015, p. 806)]. The interactions between the individuals and their peers in the

support groups were also reportedly relevant to their illness regulation, i.e., interaction and engagement in support groups (ii) [2, 5, 18] (n = 3); ["Support groups provided a lot of laughter, camaraderie, and a sense of connection with "like-minded people." (Fernandez et al., 2014, p. 896)].

Other approaches being reported that were relevant to one's self-regulation were the engagement between the individual's family and their friends, i.e., involvement from family and friends (iii) [3, 6, 7] (n = 3), and also their spiritual leaders, i.e., involvement from family and spiritual leaders (iv) [6] (n = 1), in providing encouragement and social support; ["My wife told me that I need to take medication...I'm not ready to take...I said that I'll go...to ask the synagogue's rabbi...he told me to take the medications. I took the medication...everything calmed down." (Granek et al., 2018, p. 6)].

d) Exosystem

This level describes the relationship between and among different microsystems in the individual's life, like the mesosystem, but at least one of the microsystems does not directly involve the individual concerned; the factors involved may include those other than the ones in the microsystem (Jackman et al., 2022; Crawford, 2020). Sixteen of the studies in this review described the relevant contexts at the exosystem level. Four contexts were identified at this level.

Information technology such as the Internet, cyberspace or social media, i.e., influence from the Internet/cyberspace/social media (i) [2, 8, 10, 11, 13-16, 18-21, 24] (n = 13), were reported by some studies in relation to self-regulation in bipolar disorder, which they used to seek further information about bipolar disorder and its impact and also learn from others about coping with it; ["I've done a lot of research on it. Like on the Internet. Like I searched what is bipolar disorder, and how does it affects you..." (Blixen et al., 2016, p. 1331)].

Other contexts reported were the work-related organisational community, i.e., involvement and engagement with work-related organisational community (ii) [2, 8, 12, 14, 19, 21, 22] (n = 7), and the large organisational or community support services, i.e., involvement of large organisational/community support services (iv) [18, 21] (n = 2), which related to the individuals' self-regulation through administrative regulations that were in place. One study reported that the effects of the caregiver's job(s), i.e., influence from caregiver's work/job (iii) [3] (n = 1) would also impact the individual's self-regulation; ["If he got sick, I look after him...I couldn't do anything...so how can I work?..." (Demissie et al., 2021, p. 7)].

e) Macrosystem

This level describes an individual's cultural and societal functions that may influence the relationships between and among his/her micro-, meso-, and exosystems (Jackman et al., 2022; Crawford, 2020). Only five studies described the contexts at this level, identifying two distinct contexts.

One of the two related contexts identified at this level was the religious ideology (i) [3, 11, 21, 24] (n = 4) of the participants, which was linked to coping with bipolar disorder by drawing hope and leaving difficult matters to God, for example. The second context was the cultural norms or practices (ii) [3, 21] (n = 2), for example, incorporating traditional practices to self-regulate symptoms; ["In our society, when people cannot do anything more (feel helpless), they turn to spirituality..." (Mianji & Kirmayer, 2023, p. 206)].

3.4.3 Review Question 2: In what specific socio-environmental contexts have self-regulation-related challenges been described to understand bipolar disorder?

Regarding the challenges of self-regulation in bipolar disorder, a total of 98 codes were identified, with the majority originating from the individual level, followed by the

microsystem, exosystem, macrosystem, and mesosystem levels. The distribution of the coding items is shown in *Table 5* below.

Socio-ecological level	**Number of categorical items**
Individual	50
Microsystem	33
Mesosystem	1
Exosystem	8
Macrosystem	6

Table 5: Distribution of codes across the socio-ecological levels

From the coding items gathered, 27 categories were established to answer the review question: 12 from the individual level, seven from the microsystem level, one from the mesosystem level, five from the exosystem level, and two from the macrosystem level (see *Table 6* below) (see *Appendix 4* for the references used for the categories developed across the socio-ecological levels). These categories contained the contexts that the research participants believed negatively affected and challenged their self-regulation in bipolar disorder.

Socio-ecological level	**Categories**
Individual	i. Self-stigma/Fear/Illness concealment ii. Self-distrust/degradation iii. Loss of illness-/self-control iv. Negative perception of treatment/Treatment side-effects v. Self-denial/ignorance vi. Functional/Work impairment vii. Lack of illness self-knowledge/understanding viii. Negative perception of others ix. Medication/Substance abuse x. Restrictions imposed xi. Medical/Physical issues xii. Concurrent psychological challenges
Microsystem	i. Overly involved/concerned carers ii. Limited/Ineffective healthcare providers' support iii. Social stigma/discrimination/exclusion/isolation iv. Lack of social (family/friends) support v. Impaired interpersonal relationships

	vi. vii.	Lack of illness knowledge/understanding from others Social stressors
Mesosystem	i.	Under others' scrutiny
Exosystem	i. ii. iii. iv. v.	Limited/Substandard treatment services Transportation facility issues Housing facility issues High treatment costs Negative social media representation of mental illness
Macrosystem	i. ii.	Religion-related ordeal/difficulty Negative cultural/societal perception of mental illness

Table 6: Self-regulation-related challenges in bipolar disorder

3.4.3.1 *Summary of findings of socio-environmental contexts described to understand challenges of self-regulation in bipolar disorder*

a) Individual level

Fifteen studies in this review described self-regulation challenges experienced by individuals with bipolar disorder at this level. Twelve contexts were identified as described below.

Several studies reported that self-stigma/fear/illness concealment (i) [2, 5, 10-12, 16, 18, 24] (n = 8) were perceived to be a hindrance to the individual's progress in illness management ["I had a huge amount of internal stigma, and walked around like 'Oh god, everybody knows,' you know, and felt like a loser. I went into a huge depression around it, felt like I was inadequate." (Michalak et al., 2011, p. 8)].

Several studies reported the challenges of self-regulation as related to having distrust in self, i.e., self-distrust/degradation (ii) [3, 5, 8, 10, 17, 21] (n = 6), and in others, i.e., negative perception of others (viii) [17] (n = 1). Issues with difficulty in illness- or self-control, i.e., loss of illness-/self-control (iii) [3, 5, 10, 16, 17, 22] (n = 6), along with negative experiences with

treatment, i.e., negative perception of treatment/treatment side effects (iv) [3, 5, 8, 10, 11, 17, 21, 24] (n = 8), were also seen to impact on self-regulation; ["So the way I see it, it's [the illness] hopefully something that belongs to the past...and never will come back...But despite all efforts...some kind of unpredictable wild animal, a predator, that is watching me closely waiting to strike me at any given time. It feels like it isn't something you can control." (Van den Heuvel et al., 2015, p. 806)].

In addition, other contexts reported as having constrained self-regulation were the concurrent psychological challenges (xii) [21] (n = 1) and medical or physical issues (xi) [21] (n = 1), lack or restricted sense of freedom, i.e., restrictions imposed (x) [17, 24] (n = 2), work and/or functional impairment (vi) [5, 7, 10, 16, 22, 23] (n = 6), medication or substance abuse (ix) [17] (n = 1), denying or ignoring the illness altogether, i.e., self-denial/ignorance (v) [2, 5, 7, 17, 18, 22] (n = 6), and a lack of illness knowledge and understanding (vii) [7, 8, 16, 21] (n = 4) by the person involved; ["I did not know what triggered my symptoms...I was not aware of the manic period...I did not know what triggered my manic symptoms, not to mention how to cope..." (Tse et al., 2014, p. 121)].

b) Microsystem level

The problems reported as interfering with positive regulation identified at this level came from the individual's immediate environment and the associated components described above. Nineteen studies described challenges to self-regulation at this level, and seven contexts were identified, as described below.

Studies also reported the relevance of social stigma/discrimination/exclusion/isolation (iii) [2, 3, 5, 7, 8, 11, 12, 16, 20, 23, 24] (n = 11) and the lack of social support they received from family or friends (iv) [5-8, 11, 12, 17, 18, 21] (n = 9) in this aspect; ["I never got the right reaction from people. In my workplace and other social circles, whenever I shared that I have a mood disorder and I take medication, I noticed people's view of me changed and they took it as my weakness and

judged me..." (Mianji & Kirmayer, 2023, p. 206)]. Lack of knowledge and understanding of illness from others (vi) [7, 16] (n = 2) were also the aspects reported that challenged self-regulation.

Other factors studied as challenges to self-regulation in bipolar disorder were the lack or ineffective nature of the individual's healthcare providers' support (ii) [1, 5, 8, 11, 13, 18, 20] (n = 7), impaired interpersonal relationships (v) [5] (n = 1), stressors from home, work, or school, i.e., social stressors (vii) [10] (n = 1), as well as overly involved or concerned carers (i) [1, 22] (n = 2) in the affairs of individuals with bipolar disorder; ["I just think they are holding me back and I don't think they even encourage self-management...has been detrimental to be engaged with them for over two decades..." (Todd et al., 2012, p. 6)].

c) Mesosystem level

Only one study described the challenge associated with this level. One context was identified and described below.

Extreme supervision or close surveillance from others because of the individual's experience with bipolar disorder was reported as unfavourable towards the individual's effort to self-regulation (i) [5] (n = 1); ["My boss was really worried that I might have been becoming unwell...she contacted my psychiatrist before I got there. My boss had said I was wearing different clothes, so it is this fear of, I cannot look different, I cannot wear different things, I cannot have a lot of money or act in certain ways." (Fernandez et al., 2014, p. 895)].

d) Exosystem level

Six out of 24 studies in this review described the self-regulation challenges at this level. Of these, eight contexts were identified and described below.

Among the self-regulation challenges described by the studies were limited and substandard treatment services (i) [1, 11, 20] (n = 3) and high treatment costs (iv) [11] (n = 1); ["I

went to see a neurologist because there is no control on [the quality of services of] counsellors..." (Mianji & Kirmayer, 2023, p. 204)]. Similarly, housing facility (iii) [2, 17] (n = 2) and transportation issues (ii) [2] (n = 1) were also reported to affect them negatively. In addition, negative social media representation of mental illness (v) [12] (n = 1) was reported to dampen the social understanding of mental illness.

e) Macrosystem level

Five studies were found to describe challenges to self-regulation in bipolar disorder at this level, and of these, two contexts were identified, as described below.

The two contexts reported to have undermined the individuals' effort in regulating self in bipolar disorder were the negative cultural or societal perception of mental illness (ii) [11, 12, 22, 24] (n = 4) and the religion-related ordeal (i) [11, 17] (n = 2), for example, unwillingness to seek religious help due to previous related unpleasant event; ["...But as far as society, very few people know...because of the stigma attached." (Michalak et al., 2011, p. 11)].

3.4.4 Review Question 3: Other terms used to indicate self-regulation in bipolar disorder

Twenty-four terms related to self-regulation were included in the review. The most frequent word used was self-management, which stood at 19 counts, followed by coping, with 10 counts. Self-monitoring, help-seeking, and autonomy were all recorded as three counts each. Meanwhile, self-care, self-determination, self-help, and self-awareness each had two counts. The terms with one count were self-empowerment, problem-solving, role management, emotional management, emotional regulation, self-surveillance, self-efficacy, self-control, self-realisation, self-expertise, self-assessment, self-initiation, adaptive functioning, learned resourcefulness, and independence (see *Table 7* below).

Terms	Frequency
Self-management	19
Coping	10
Self-monitoring	3
Help-seeking	3
Autonomy	3
Self-care	2
Self-determination	2
Self-help	2
Self-awareness	2
Self-empowerment	1
Problem-solving	1
Role management	1
Emotional management	1
Emotional regulation	1
Self-surveillance	1
Self-efficacy	1
Self-control	1
Self-realisation	1
Self-expertise	1
Self-assessment	1
Self-initiation	1
Adaptive functioning	1
Learned resourcefulness	1
Independence	1

Table 7: Other terms related to self-regulation in bipolar disorder

3.4.5 Review Question 4: Research methods used to study self-regulation in bipolar disorder

The majority of the articles included in this review were qualitative studies, 19 studies (79.2%), while the remaining mixed-method and quantitative studies contributed three (12.5%) and two studies (8.3%), respectively (see *Figure 4* below).

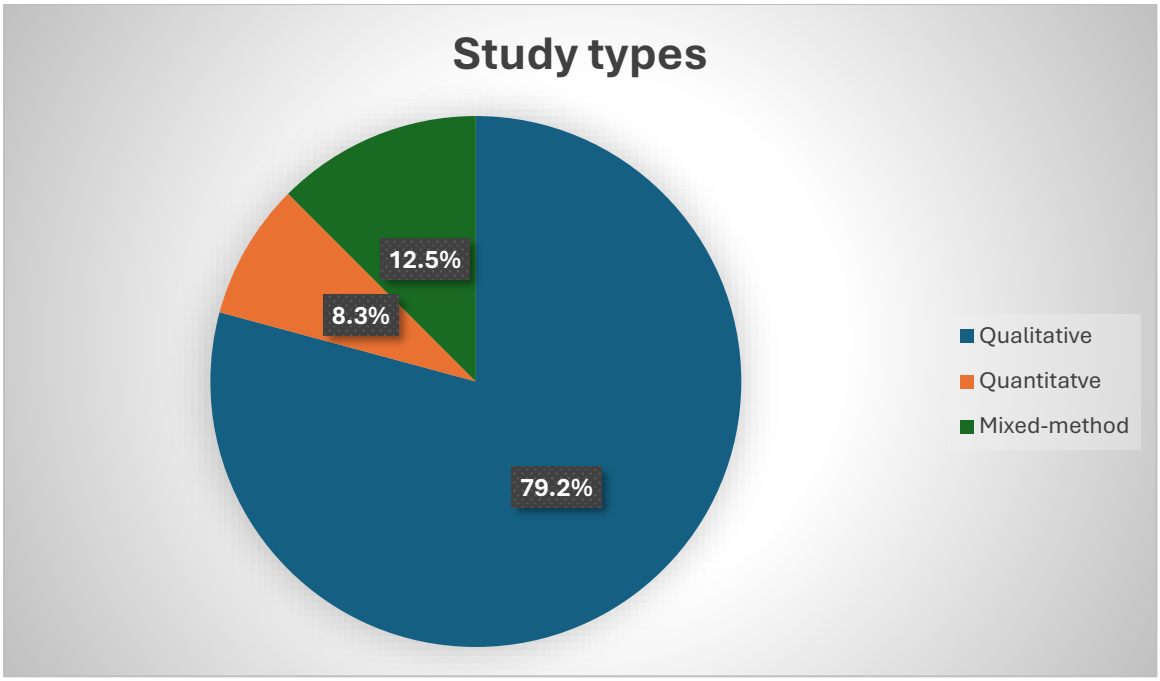


Figure 4: Pie chart of study method distributions

3.5 Discussion

This scoping review points out the multi-contextual factors that can affect one's regulation while living with bipolar disorder. These factors have been reported as helpful, less advantageous, or even detrimental to one's effort to self-regulate, although the perception of their level of usefulness can be context-dependent.

Most of the factors extracted from the 24 included studies come from the individual level. This indicates that the current empirical focus of this study area, specifically understanding self-regulation in bipolar disorder, is primarily situated at the individual level, with the number of data items extracted decreasing as the socio-ecological level increases. This means that the focus of this study area at present remains on the lower socio-ecological levels, i.e., individuals and their immediate environment, rather than higher levels that also incorporate their dynamic inter-relationships with the lower levels, even though the relevance of diverse

socio-ecological factors impacting mental health and illness has been emphasised more than a decade ago (Biglan et al., 2012).

Numerous studies have examined self-regulation through individual activities aimed at enhancing one's well-being, including self-awareness, self-care, self-monitoring, and self-discipline, among others. These individual activities involved some psychological and behavioural adaptation that encourages well-being attainment (Gianessi, 2012). While individuals can be motivated to engage in positive behaviour, their behaviour can also be influenced by external factors. In a study examining self-regulation in paediatric bipolar disorder, a good family environment was found to be associated with better executive functioning and emotion processing (Khafif et al., 2023). This observation suggests that the practice of self-regulation is not an individual issue but instead is closely related to one's socio-ecological context (Paat et al., 2024).

The influence of other factors on self-regulation was observed in studies that highlighted the effect of direct or indirect relationships, organisations, cultural and religious beliefs, and social media within their socio-ecological context on individuals' self-regulation behaviour. This observation further supported the fact that self-regulation is influenced by socio-ecology, as mentioned above. In the context of bipolar disorder, the socio-ecological aspect is said to influence self-regulation in the form of coping and adaptation to maintain well-being (Angeler et al., 2018). Therefore, given the favourable and supportive socio-environmental conditions, individuals are likely to thrive despite the challenges associated with bipolar disorder.

Further research on self-regulation in bipolar disorder from the socio-ecological perspective should involve more of the higher levels to ensure an inclusive understanding of the potential diverse factors influencing and affecting one's self-regulation practices. The

importance and relevance of research at a higher socio-ecological level, such as the macrosystem, have been increasingly emphasised by researchers in the mental health field, as it is necessary to engage with and influence the law and public policy arenas (Moonveld & McVeigh, 2025). This knowledge might be helpful for future interventional efforts to improve bipolar disorder outcomes in individuals affected by it. The narrow focus of intervention methods based on a selective socio-ecological level may overlook important factors unique to individuals in their specific environment, which can only be best addressed using integrated methods from a comprehensive socio-ecological perspective (Mutumba & Harper, 2015). As such, interventions to assist individuals with bipolar disorder by targeting the wider society or international community are possible with the enhanced knowledge that all socio-ecological levels are related and influence one another (Reupert, 2017), for example, through coordination of mental health-related activities between governmental and non-governmental organisations (Visalakshi et al., 2023).

This scoping review was guided by the established scoping framework of Arksey and O'Malley (2005), and the findings were reported using the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews) checklist (Tricco et al., 2018) (see subsection 3.3), which ensured transparency of the review. This review provided a comprehensive literature coverage that explored the topic area in sufficient depth and breadth, as relevant studies were included regardless of their study design. Additionally, the use of a hybrid deductive-inductive method in this review facilitated an understanding of self-regulation in bipolar disorder within the socio-ecological context and revealed the extent of what was previously known about this topic.

Despite the strengths of the review as described in the paragraph above, several limitations have been identified. Firstly, this data screening and extraction were conducted by a single researcher because this is an independent postgraduate study. However, to ensure the

quality of the study, this review used a piloted and approved data extraction form and was closely supervised by the researcher's two supervisors throughout the review process. Secondly, some extracted data items may fit into more than one socio-ecological level due to the complex nature of interactions among factors in the socio-ecological structure (Slimmen et al., 2024). However, to avoid confusion, the data would be placed in the most relevant category based on the researcher's understanding of the data context, which was influenced by his perception as a psychiatrist from the clinical cases observed in his work so far. Thirdly, the studies retrieved were based on the search terms used. As the researcher's knowledge determined the initial terms used, other related terms might have been missed. The initial terms were discussed with the university's information technologist to limit the impact of this incident. The new terms discovered during the first stage of the literature search were used during the second stage to ensure the comprehensiveness of the relevant literature retrieved. Finally, as scoping reviews generally emphasise breadth rather than depth (Munn et al., 2018), the approach may not be able to seek causal explanations, hence appear incongruent to the critical realist paradigm. However, by interpreting the findings through a critical realist lens and approaching the review from an understanding of surface patterns, this practice enabled the following qualitative study to be analysed in depth.

This scoping review on self-regulation by individuals with bipolar disorder has identified many potential factors that can assist and challenge one's effort to self-regulate. This review has addressed a gap in the literature by providing a comprehensive socio-ecological mapping of how self-regulation in bipolar disorder has been studied and the levels at which its practices are located in the socio-ecological framework. The review results show a stronger emphasis on self-regulation for lower-level processes than for higher-level ones. This gap, therefore, provides the rationale for the subsequent qualitative study (see Chapter 4), which explores self-regulation experiences among individuals with bipolar disorder within the local

Malaysian context. The study may benefit the local people through possibly providing an impetus to future studies or actions taken to improve their living experiences with bipolar disorder.

CHAPTER 4 – METHODOLOGY

4.1 Philosophical Position of the Study

The philosophical paradigm guiding this study is critical realism, as it aligns with the worldview of the study, as explained and justified in Chapter 1. This paradigm posits that the reality experienced by people in the world can be divided into three domains: *the empirical, the actual, and the real. The empirical* refers to the events *experienced*. *The actual* refers to the events that *occurred*. *The real* is the *underlying processes* that result in *the empirical* and *the actual* (Roberts, 2014; Bhaskar, 2008). When applied to the context of this study, *the empirical* can be made known through interviews probing one's experience in self-regulation while living with bipolar affective disorder. Meanwhile, *the actual* refers to the events related to their self-regulation practices. As for *the real*, it is perceived as the unseen causative powers or explanations that explain *the empirical* and *the actual* (Haigh et al., 2019).

This paradigmatic approach enables *the real* or underlying factors that result in the person's experience to be made more transparent and understandable through the exploration and interpretation of the subject's firsthand account. In this study, self-regulation concerning one's living experience with bipolar disorder will be more accurately disclosed, thus assisting in answering the research question guided by the research objectives of this study, as stated in Chapter 1 and restated below.

The research question for this qualitative study is 'What are the experiences and their possible causal explanations for the individuals' self-regulation in relation to resilience while living with bipolar disorder in the socio-ecological context in Malaysia?'. The research objectives are:

a) To explore the experiences of individuals with bipolar disorder in Malaysia in self-regulation while living with bipolar disorder.

b) To identify the social-ecological factors that are perceived by these individuals to influence self-regulation while living with bipolar disorder.

c) To identify the socio-ecological needs that are desired and perceived to be necessary for self-regulation in bipolar disorder by these individuals.

4.1.1 Thematic Analysis Under the Critical Realism Paradigm

This study employs a qualitative thematic analysis approach, which aligns with the research design and the critical realist paradigm (Spiers & Riley, 2019). Thematic analysis is a research strategy that attempts to extract meanings from the data, arrange them into themes, and subsequently examine and analyse (Javadi & Zarea, 2016) through reflective and reflexive enquiry, where the initial positionings are identified, and the underlying assumptions are confirmed and clarified (Braun & Clarke, 2019).

Thematic analysis is a theoretically flexible approach (Braun & Clarke, 2021), which allows it to be adopted in this study, which is informed by the critical realism paradigm. Data analysis in the thematic approach has usually been guided by either positivist or constructivist philosophical paradigms (Wiltshire & Ronkainen, 2021). Braun and Clarke (2006) initially believed that thematic analysis could be used regardless of theoretical and epistemological orientation. However, in one of their works many years later, they differentiated the objectivity and subjectivity in the research data by using a small ‘q’ and a large ‘Q’, respectively (Braun et al., 2016). This differentiation illustrates the transition from the previous thematic approach, as mentioned above, to the current one, where the type of philosophical paradigm (i.e., positivism or constructivism) influences the thematic methodology employed. As such, both paradigms will eventually determine the specific methods used for data analysis. For thematic analysis guided by positivism, the codebook or coding reliability thematic analysis is used for data analysis. On the other hand, reflexive thematic analysis is used to analyse data in the constructivist paradigm (Braun & Clarke, 2019).

There have been recent criticisms regarding "the existence of paradigmatic disagreements between the two broad strands of TA" (Wiltshire & Ronkainen, 2021, p. 160), specifically between the coding TA and the reflexive TA. As such, the binary distinctions have created a gap between the coding TA and the reflexive TA, which researchers have attempted to address by introducing a critical realist approach to thematic analysis (Christodoulou, 2024; Fryer, 2022; Wiltshire & Ronkainen, 2021). A critical realist approach is necessary because the former TA approaches are incompatible with the critical realism paradigm, and unless a strong justification is given, using either of them would risk ontological mistakes in the research.

In critical realist-inspired thematic analysis, the methodology enables the data to be richly described and thoroughly explored while also facilitating the development of causal explanations through induction, abduction, and retroduction (Christodoulou, 2024). This approach aligns with the underlying ontological beliefs of the critical realist paradigm, where truth can be perceived in three domains: empirical, actual, and real, as explained above. Historically, it has been incorrectly assumed that causal knowledge or explanation of events cannot be produced in qualitative research (Fryer, 2022) because “reality is socially constructed and it is what participants perceive it to be” (Creswell & Miller, 2000, p. 125). However, in the critical realist approach to thematic analysis, causal explanation is a principal activity (Wiltshire & Ronkainen, 2021). Causal explanations are formed to comprehend the *possible* underlying reasons for such events, which this study aims to do. Therefore, in critical realism, the individuals’ experiences are interpreted, and the underlying causal explanations for their experiences are developed.

Wiltshire and Ronkainen (2021) initiated the first critical realist approach to thematic analysis, which was subsequently followed by other researchers, including Christodoulou (2024) and Fryer (2022). Each study contributed to previous knowledge and revealed some differences in their analytical approaches. The four C's model (coding, clustering, connecting,

constructing themes) developed by Christodoulou (2024) was employed in this study to guide the data analysis process, consistent with the ontological and epistemological perspectives of this study.

4.1.2 Justification for Using the Thematic Analysis Approach Over Other Qualitative Approaches

At the beginning of the study, several qualitative approaches were considered, including thematic analysis, interpretative phenomenological analysis, and grounded theory analysis, as these methods could potentially answer the research question and provide insight into individuals' experiences of self-regulation in bipolar disorder (Bryman, 2012). After carefully considering their methodologies and how they would align with this study's philosophical approach, thematic analysis was adopted over the other two, as justified below.

This study focussed on exploring the participants' self-regulation behaviour and the potential factors affecting it, along with discovering patterns across the data and their interpretations, rather than focussing on "the unique details of each case" (Braun & Clarke, 2021, p. 5). Understanding the extent of the behavioural strategies used in self-regulation gave a comprehensive understanding of participants' behaviour and the available resources in their socio-ecological context that impacted them, thus capturing diverse and heterogeneous experiences (Braun & Clarke, 2021). As such, the breadth of the data was more suitable than its depth, which could be achieved through thematic analysis (Smith, 2015). Additionally, this study did not aim "to develop a grounded theory from the dataset and analysis" (Braun & Clarke, 2021, p. 7). Additionally, given the small number of participants involved in this study, conducting grounded theory research was not appropriate (Tight, 2024). Furthermore, this is independent postgraduate research by a novice researcher limited by budget and time resources.

Given the above reasons, the most practical approach for this study would be to employ thematic analysis.

4.2 Sampling and Data Collection

4.2.1 Participants' Selection and Sampling

Non-probability purposive sampling was employed to collect research data, as the sample selection was tailored to the study's purpose (Coyne, 1997). The purposive sampling strategy is most commonly used in thematic analysis research (Braun & Clarke, 2022). Participant access to this study is described in Section 4.5 of the research ethics section below.

Participant selection was based on the following criteria:

a) The individual is an adult (18 years old and above), regardless of gender

b) The individual receives treatment for bipolar disorder, diagnosed by a psychiatrist

c) The time frame since the diagnosis is made must be at least six months

d) The individual must not be acutely unwell or cognitively impaired during the time of the interview

e) The individual must not be currently or previously treated or managed by the researcher

f) The individual is articulate in either Malay, English, or Chinese spoken language AND literate in reading and writing in either Malay or English

Individuals not fulfilling any of the criteria above were excluded from the study. In addition, individuals who were noted to be psychologically unwell during the informal mental state examination conducted during the interview would be excluded from the study as well.

4.2.2 Rationale for the Participants' Selection Criteria and Sampling Limit

Individuals below the age of 18 are considered minors in Malaysia (Malaysia Mental Health Act 2001) (Laws of Malaysia, n.d.), and are therefore unable to provide legally valid informed consent for research participation. This observation aligns with the typical societal expectation of transitioning from childhood and adolescence into adulthood (Salgado, 2017; Lindgren et al., 2013). After age 18, society expects individuals to be responsible for their behaviour and actions (Lindgren et al., 2013). Therefore, individuals under 18 years of age were excluded from this study.

A duration of at least six months since the first presentation of bipolar disorder symptoms indicates the chronicity of the illness (Sadock et al., 2015), and this timeframe is also used to distinguish between acute and chronic illness duration (Nagel et al., 2009). This duration may be sufficient for the individuals to understand the impact of their illness experience on their environment and vice versa. Hence, those who received treatment for bipolar disorder for less than six months were excluded from the study.

Only individuals not in the acute phase of illness or cognitively impaired were accepted into the study to ensure competency in decision-making and the ability to provide accurate and coherent information. Individuals who had been previously treated or managed by the researcher were excluded from the study to avoid potential ethical issues.

The languages used in the interview reflect the main languages spoken in Malaysia and understood by the researcher in the study. However, as the researcher is only literate (i.e., reading and writing) in Malay and English, the study documents (e.g., consent forms and patient information sheets) were provided in these languages. Therefore, only those who were literate in either of the languages were recruited for the study, as they needed to read and write on the relevant study documents.

As broader views were sought to understand self-regulation in bipolar disorder, a large study sample was anticipated (Spiers & Riley, 2019), typically comprising more than 10 participants (Braun & Clarke, 2021). However, determining an appropriate sample size in qualitative research is not a straightforward process ; as Sim et al. (2018) stated, "the decision over what constitutes an adequate sample size to meet a study's aims is one that is necessarily a process of ongoing interpretation by the researcher. It is an iterative, context-dependent decision" (Sim et al., 2018, p. 630). Nonetheless, as explained below, participant recruitment ceased when data from the interviews were deemed sufficient for analysis.

Although thematic emergence is important in a qualitative study, thematic interpretation is a crucial part of the process, requiring a reflexive and analytical approach by the researcher (Varpio et al., 2017). Therefore, for pragmatic reasons, the sampling process was continued until sufficient data had been collected, guided by the information obtained from the data collection. Although Fusch and Ness (2015) stated that the number of subjects would be known once no new information emerged from the data, it is impossible to verify data saturation (Tight, 2024). Therefore, data saturation, or more accurately, data sufficiency, in this study was achieved once the data obtained were sufficient for the researcher to build a consistent narrative across the data. This case was made possible through the simultaneous collection and analysis of data rather than doing so sequentially (Riger & Sigurvinsdottir, 2016; Vaismoradi et al., 2013). The number of participants in qualitative studies typically ranges from 12 to 26 individuals (Ando et al., 2014; Luborsky & Rubinstein, 1995). As this is a small-scale, independent study with limited time and resources available, the data collection targeted approximately 15 participants.

4.2.3 Patient and Public Involvement in the Research

The relevance of patient and public involvement (PPI) in health research has gained significant international recognition over the years (Shimmin et al., 2017) due to the increasing awareness of the importance of having diverse and equal voices among the public and professionals (Green, 2016). Patient participation and involvement have been gaining momentum in the healthcare sector, including mental health research (Jorgensen et al., 2018). Their participation would not only improve the research quality but also ensure that the research value is translated into clinical practice (Ennis & Wykes, 2013), thereby benefiting service users and other stakeholders in general. General guidelines for involving the public in research, outlined by the National Institute for Health and Care Research (National Institute of Health, Malaysia, 2021), were adapted to fit the local research environment.

There has been a lack of a shared understanding of what constitutes the patient and public involvement (PPI) (Rise et al., 2011). In this study, patient involvement refers to "the practice of involving individuals in health research or policy on the basis of their experience with a particular condition", and public involvement refers to "the practice of involving individuals in health policy or research based on their status as members of a relevant population" (McCoy et al., 2019, p. 708). As such, the individuals who contributed to the conduct of this study included a psychiatrist and a service user who actively participated and provided feedback during the pre-pilot stage, when the preliminary semi-structured interview guide was formulated. Each of their respective involvement in the study is described in detail in the relevant subsections below.

4.2.3.1 *Data Collection*

Basic personal data relating to the participants (i.e., name, personal identification number) were collected for two reasons: as part of the informed consent procedure and for use

in participant identification in research, including research writing. From the personal identification number, several details were known, including the person's birthdate and birthplace (state), age, and gender. However, only selective information was used and presented in the research (i.e., gender, age range) to ensure the participants' confidentiality.

A semi-structured interview guide was developed based on the five phases recommended by Kallio et al. (2016): "identifying the prerequisites for using semi-structured interviews, retrieving and using previous knowledge, formulating the preliminary semi-structured interview guide, pilot testing the guide, and presenting the complete semi-structured interview guide." (Kallio et al., 2016, p. 2954). The questions constructed in the interview guide were informed by the researcher's area of knowledge in this study to cover important aspects that address the study's objectives. Additionally, other qualitative studies in the subject area (Crow & Inder, 2018; Murray et al., 2011; Suto et al., 2010) were examined to gain insight into the types of questions used in their respective studies. To ensure that the interview questions used were relevant and appropriate to answer the research question, the opinions of stakeholders (i.e., a service user and a mental health professional) were sought when drafting them. The final interview guide was the result of several amendments, having been tried on a few occasions, and after being reviewed by the research supervisors, as described below.

A preliminary semi-structured interview guide was formulated, and two stages of pilot testing, namely the pre-pilot and pilot stages, were conducted to determine the comprehensibility and clarity of the questions posed. The pre-pilot stage was tested with a psychiatrist and a service user under treatment for anxiety disorder, but was never under my treatment. Their feedback on the questions was obtained, and the questions were amended accordingly before being used in the pilot stage. The pilot stage was tested with two service users with bipolar disorder. In the pilot stage, the interviews were recorded, translated, and transcribed into English. Data analysis was conducted to have an overview of the data range

collected. A discussion was held with the researcher's supervisors on the interview outcome before confirming the guide for use in the 'real' interview stage. However, the interview guide was amended based on the responses received during subsequent interviews to accommodate the participants' response styles, without altering the research focus area or the aim to elicit responses that answered the research question. (See *Appendix 5* for the semi-structured interview guide). In the former interview guide, efforts were made to address each of the socio-ecological levels in the interview. However, in the current interview guide, the relevance of any of the socio-ecological levels was determined as the interview progressed based on the participants' input. Therefore, the researcher would explore the relevant factors in the socio-ecological system based on the information given by the participants. The latter approach was found by the researcher to be more effective at eliciting participants' responses and facilitated a smoother interview flow.

Improvements in the interview guides during data collection are a normal and iterative process in qualitative studies (Malmqvist et al., 2019; van Teijlingen & Hundley, 2001). Therefore, it was also decided during the discussion with the supervisors that the pilot data would be included in the main study. The practice of including pilot data in the main study is justifiable when there is no significant or major change to the research methodology involved (Thabane et al., 2010). Additionally, similar patterns and ideas emerged between the pilot data and the subsequent interview data, allowing them to be grouped and analysed together to answer the research question (see *Chapter 5*).

4.2.3.2 *Interview Approach*

This study's qualitative research interview design was guided by Turner's (2010) approach to inquiry. The practical aspects of conducting interviews, such as preparing effective interview questions and facilitating more conversational interviews, were adapted accordingly.

The interview approach for this study was hinged upon the critical realism of socio-ecological theory. This approach posits that people typically act in proportion to their awareness, but not with a complete understanding of the structural conditions that prompt their actions (Pawson, 1996). Therefore, the interviewer who was aware of this knowledge played an important role in eliciting and conceptualising the participants' accounts of their experiences. The interviewer would be seen as "having particular expertise in characterising wider contexts and the outcomes of action" (Smith & Elger, 2014, p. 12) that potentially reflected the participants' behaviour in the context of interest to answer the research question. On the other hand, the participants would actively engage in the interview by providing reasons, motivations, and choices for their overall behaviour. Hence, the interview was based on the theoretical and conceptual understanding of the interviewer, as well as the participant's expert input and confirmation of their experiences (Smith & Elger, 2014).

Here, the interviewer's role was to explore and understand the participants' experiences with self-regulation within the socio-ecological context of Malaysia. The researcher helped focus the participants' responses on relevant contexts within different socio-ecological contexts pertinent to the topic of discussion, ensuring that their responses provided the most enlightening answers to the research question. Some level of coaching was provided through prompting and highlighting areas of interest, allowing participants to reflect and respond within the scope of semi-structured interviews (Smith & Elger, 2012). To achieve this, when a participant shared their experiences during the interview, the researcher would reflect on them to determine which socio-ecological aspects were involved and would further explore, as needed, whether their experiences were also thought to be related to other socio-ecological aspects that the participant had not mentioned. Precautions were taken to ensure that the prompting did not influence the participant's responses in any way other than their original

responses. Some examples of the prompts used were ‘Could you elaborate more on this?’ and ‘Could you give some examples regarding this?’ (see *Appendix 5*).

As a qualitative study which used a semi-structured interview approach, an interview guide would allow not only the interviewing aspect to run consistently for all the interviews (Holloway & Galvin, 2024) but also to guide the interview flow without influencing the participants' responses, thus allowing beneficial conversational exchanges between the interviewer and the interviewee (Galletta, 2013). The topic-guided semi-structured interview was chosen because it would allow the same areas to be explored with all interviewees while maintaining flexibility in obtaining the information (Turner, 2010).

An encrypted audio recorder was used to record the interviews. They lasted between 30 and 60 minutes, which corresponded to the suggestion by Michalak et al. (2007) to minimise interviewee and interviewer exhaustion. In this study, no further interview sessions were arranged after the initial session. McNamara's (n.d.) suggestions on structuring interview questions were implemented whenever appropriate, such as open-ended questions, making neutral questions, and asking clarifying questions. The interviewer did not guide the participant in a particular response direction but was open to the answers given during the interview.

This study also adopted McNamara's (n.d.) interview principles. For example, the interview format was explained to the participant before the interview began, and any queries were clarified. Several practices were employed during the interview, including verifying that the recording device was functioning properly at regular intervals, asking one question at a time, taking minimal notes, encouraging responses, and providing smooth transitions between topic areas. After the interview, further notes were taken to clarify the initial notes. Audio-recorded interviews were transcribed and translated into English by the researcher for later analysis.

In this study, the research participants' preferred language was not English. Therefore, the interviews were conducted in the languages the participants chose to converse in, and the interviewer was also fluent in those languages. Using the language they were comfortable with would put them at ease (Gawlewicz, 2016) and help generate more authentic statements (Welch & Piekkari, 2006).

4.2.3.3 *Data Translation and Transcription*

Cross-language research, especially that involving the translation and transcribing of interview data, is a complex academic activity (Goitom, 2020; Caretta, 2015) and is "not merely a direct message transfer from a source language to a target language" (Al-Amer et al., 2016, p. 150). Translation and transcription are dynamic processes as they rely heavily on the research contexts, including the multidimensional social realities experienced (Widodo, 2014). As such, there is "no one correct translation" (Temple & Edwards, 2002, p. 2); however, careful consideration of the approaches used is essential for understanding and reliably translating the voices of research participants into scripts for subsequent data interpretation and analysis. The approaches to data translation and transcription, which ensure easy data comprehension, readability, and interpretation, are transparently described and justified below.

Transcription, which refers to the "transformation of recorded audio (usually spoken word) into a written form" (McMullin, 2023, p. 140), was done concurrently with the translation process. In other words, the recorded interviews were simultaneously translated and transcribed directly into English. The reason for this approach was that the researcher could read, write, and speak English and Malay, but could only speak Chinese. Therefore, to ensure the consistency of the study process, all interview data, regardless of the source language, were translated and transcribed directly into English simultaneously. In line with the practice, Temple and Edwards (2002) stated that "transcription involved both interpretation and

translation: listening to the taped interview and then providing a written English version" (p. 4). Direct translation and transcription from one source language into another is possible when a researcher is fluent in the languages used in the research (Iyamu & Mutudi, 2022) and takes into account the linguistic nuances involved (Inhetveen, 2012; Arndt, 2011). Every attempt was made to ensure that the transcription in this study was carried out meticulously, thereby ensuring the validity and rigour of the processes involved. The recorded interviews and their respective transcripts were subsequently reviewed for accuracy by a second psychiatrist who was involved in participant recruitment, as she was fluent in the local languages and familiar with the local culture. No amendment was needed for the interview transcripts. The interview findings were then shared and discussed with the researcher's supervisors.

The interview data that were recorded underwent several replays for repeated listening, namely *warm-up listening*, which helped the recollection and re-familiarisation of the data collected; *follow-up listening*, which helped the understanding of the emerging points relevant to answering the research questions; *close listening*, which helped the location of more detailed information about a relevant topic issue; *selective listening*, which helped in transcribing the data, and finally, *analytical listening*, which helped in examining and determining how the data were being represented (Widodo, 2014).

Data transcription followed the denaturalism approach in that any idiosyncratic elements, such as pauses and non-verbal signals in a speech, were omitted. This approach was chosen as it aligned with the researcher's viewpoint that "meanings and perceptions construct one's reality" rather than the language used (Widodo, 2014, p. 105). This approach was also appropriate to the study context, as most participants' first language was not English. While many participants used their preferred language during the interview, some employed a mixture of English and their primary language, i.e., Manglish, thereby further complicating the transcription process. While an exact transcription is impossible (Murray & Wynne, 2001),

attempts were made to transcribe and interpret the meanings accurately based on the social and cultural context of the research participants and the researcher. Therefore, rather than the exact transcription of the interview data, which would risk losing their actual meaning (Oliver et al., 2005), the process was done rigorously by focussing on conceptual equivalence to preserve the intended meaning of the participants, considering the context in which the research was conducted (Squires, 2009). Efforts were also made to highlight the relevant meanings of certain points made by the participants in order to prevent misunderstandings by anyone unfamiliar with their social and cultural contexts and the use of Manglish to convey their views. According to Pitchforth and van Teijlingen (2005), an ideal interpreter for qualitative interviewing can both verbally translate and share the cultural background of the person being interviewed. As the researcher possesses the aforementioned characteristics, no interpreter was used in this study.

The transcription was conducted after each interview, as the event was still fresh in the researcher's mind. Thus, it allowed him to recall and reflect more easily on the points raised during the interview. In this way, the researcher, as the sole transcriber and translator in the study, could also assess, amend, or improve the interviewing techniques (Matheson, 2007). Besides, the data sufficiency could also be determined (Underhill et al., 2015), which helped the cessation of participant recruitment, as mentioned above. Data sufficiency was determined upon reading the transcript. Several additional interviews were conducted to confirm the sufficiency of the data.

The interview, translation, and transcription work conducted by a single researcher provided an advantage in that the study's research framework was adhered to during the process, thus preventing potential deviation that might distort how one issue was perceived and analysed later (Temple & Edwards, 2002). Data collection and analysis were conducted

concurrently, as commonly practised in qualitative research (Maxwell, 2005; Richards, 2005). The methods of data analysis are described in the following section.

4.3 Data Analysis

4.3.1 Data Familiarisation

The data analysis in this study began with a thorough and intensive reading and re-reading of the interview transcripts (Polit & Beck, 2004) to identify relevant data fragments (i.e., codes) that were appropriate for responding to the research objectives, which ultimately answered the research question (Linneberg & Korsgaard, 2019). This initial work was supplemented by documentation of any information about initial thoughts, ideas, or the context in which the interview was conducted (Fryer, 2022) to help make sense of the collected data.

4.3.2 Data Coding and Clustering

The coding process used in this study was adapted from Fryer (2022), which involved the application, development, and review of codes. The process began with a descriptive approach to coding, in which the data were described as they appeared (i.e., data-led) rather than using a more abstract description (i.e., theory-led). This approach allowed the data to be viewed as they were without immediately confining them to pre-existing concepts or theories (Fryer, 2022). However, as researchers usually have a prior conceptual understanding of their research (Danermark et al., 2001), their pre-conception may influence their initial coding. As such, Fryer (2022) suggested that "it is fine to use some theoretical terms within our initial codes, as long as they remain descriptive" (p. 371).

Descriptive coding was done by reading each interview transcript against the research objectives (O1, O2, O3) (see Chapter 1) rather than the socio-ecological framework (which I did initially) because the latter would potentially miss out relevant information that could not be categorised in the framework but has a significant influence on their self-regulation, for

example, the impact of the medication or physical things perceived to have value and influence. In addition, events could be a complex interplay among the socio-ecological levels and would be challenging to separate into specific socio-ecological categories (Slimmen et al., 2024), unlike the arrangement of data into socio-ecological levels seen in the scoping review of this study (see Chapter 3). The reason was the straightforward nature of the data presented in the papers, which lacked background information, thus making the process of categorising data into relevant socio-ecological levels easier. The current approach in the qualitative study was necessary for later data analysis, as only one code can be assigned to a group to prevent overlapping (Christodoulou, 2024). Each data fragment (highlighted yellow in the transcripts) with a pertinent point was given a number until no more were identified. Each code began with the participants' initials, followed by the code's corresponding number. Keywords (underlined in black in the transcripts) that corresponded to the research objectives and captured the participants' experiences and perceptions (Naeem et al., 2023) were used to help develop the codes. All coded transcripts were re-read several times to ensure comprehensive identification of potential data fragments within the transcripts (see a sample of a coded interview transcript in *Appendix 6*).

Descriptive codes with similar meanings in *each* transcript were put into the same groups (standardisation) (i.e., developing codes) under the initial codes' column (see *Appendix 7*). The codes within the same grouping were then reviewed to ensure that the underlying codes had been accurately described and coded (i.e., reviewing codes). Then, the codes for each grouping underwent further inspection, and the codes with the same meaning were merged and rephrased when necessary to capture the essence of the codes within them.

A similar process was repeated for all the interview transcripts, reducing the number of codes that needed to be processed later. To ensure that the codes were merged and rephrased accurately and to preserve their original meanings, the relevant interview transcripts were

reviewed to confirm that their meanings remained consistent and were derived from the contexts in which they were mentioned. The newly merged codes were placed under the current codes' column for each transcript (see *Appendix 7*).

Following that was the clustering stage, in which the current codes from *all* transcripts that shared similar ideas were re-grouped and clustered into their respective meaning units, i.e., categories, under new labels (see *Appendix 8*). Codes sharing the same meaning within each category were merged and rephrased as needed to produce the final codes (see *Appendix 9*). Again, the original transcripts were checked to ensure the data contexts were similar and appropriate. Each code was only assigned to one cluster group to avoid overlap (Christodoulou, 2024). This approach would not be a problem because the codes in each category would be checked for their connections with codes from other categories to form themes during the connecting and constructing stage, as described below. This clustering process enabled the emergence of a 'bigger picture' in which relevant codes were gathered into respective categories.

Each category was assigned an initial abstract description to represent the meanings of the codes within that category. Finally, a final abstract non-theoretical description was given to represent the overall meaning for each category because "the aim is to tap the maximum differentiation of what participants say and do and to impose order by clustering similarities (Christodoulou, 2024, p. 44). As explained below, the final abstract description (see *Appendix 10*) was essential for the subsequent data analysis, i.e., connection and constructing.

4.3.3 Development of Themes and Causal Explanations- Connecting and Constructing

Using the one-mode network method (Christodoulou, 2024), the categorical data set was organised into a single row and column to highlight connections (see *Appendix 11*). Each category was represented by a categorical label and its final abstract description. For two

categories to be connected, Christodoulou (2024) claimed that either "a category makes another category more specific", "a category is part of another category", or "a category acts as a condition which enables (or constrains) another category to be what it is." He further suggested that "researchers have to treat connections in terms of mechanistic thinking" at this stage (Christodoulou, 2024, p. 46). Therefore, the possibility of two categories connecting was being looked at from the perspective of their emergent relational properties, situational or contextual information, and implications and effects, thus needing some level of researcher's interpretation of the data contexts and relations and not merely drawing upon individuals' beliefs about their experiences (Christodoulou, 2024). In this study, a further step was taken to make the decisions for the categorical connections more transparent, in that the codes in one category were checked for their connections with those in another category (see *Appendix 12*). This process was repeated for all the categories. A relational map was subsequently drawn to visually illustrate the categorical connections in this study (see *Appendix 13*).

In the final data analysis stage, the thematic construction and development of the causal explanations were focussed on. According to Christodoulou (2024), themes are abstract redescriptions of the connections among the categories through retroductive reasoning. Themes were developed by analysing the connections between and among the categories using the one-mode network method and the relational map diagram. Therefore, each category could have more than one connection with other categories, thereby involving it in more than one theme development. The causal explanations were developed through retroductive reasoning to infer the underlying mechanisms for the participants' self-regulation behaviour.

4.4 Theoretical Guidance on Study Design

The overall conduct of this study was based on four concepts, as described in Chapter 2 above, namely, bipolar disorder, socio-ecology, self-regulation, and resilience. These

concepts helped in the study design and execution, including data collection and analysis. To describe them metaphorically, bipolar disorder was akin to a building's foundation, where the materials used were specifically selected for their purpose. Individuals with bipolar disorder who fulfilled the study criteria were invited into and engaged in the study through an approved ethical process (see Section 4.5 below). On the other hand, socio-ecology and self-regulation served as the framework for the building, aiming to hold the structure together. Finally, resilience was like the furniture in the building, giving the impression of what the building was for. It is worth noting that the main concepts influencing the study were bipolar disorder, socio-ecology and self-regulation, as explained below. Meanwhile, the inclusion of the resilience concept was to relate it to these concepts, providing a more transparent research direction and a clearer understanding of this aspect for readers.

The application of socio-ecological and self-regulation concepts in the research process was evident in the development of the interview guide, which aimed to elicit participants' self-regulation responses in relation to their socio-ecological contexts. As mentioned earlier, the interview guide was amended accordingly to accommodate the participants' response styles during the interviews before the final guide was used for the remaining interviews. During the data analysis, the relevant interview data were initially coded against the socio-ecological framework. However, as discussed above, it turned out that using this method would risk excluding certain relevant data from the analysis. Therefore, the data were coded in relation to the research objectives, which also encompassed socio-ecological and self-regulation aspects for later analysis. During the data analysis, the development of themes and causal explanations for their self-regulation behaviour was facilitated through mechanistic thinking and retroductive reasoning (Christodoulou, 2024), guided by perspectives on the concepts of bipolar disorder, self-regulation, socio-ecology, and resilience.

4.5 Research Ethics

4.5.1 Research Ethics' Sources of Reference

The conduct of this study upheld the principles of research ethics and integrity, which were guided by several research guidelines such as 'The Malaysian Code of Responsible Conduct in Research' (National Science Council, 2017), the 'Malaysian Guideline for Good Clinical Practice (4th edition)' (National Committee for Clinical Research, 2018), Malaysia's 'Personal Data Protection Act 2010 (Act 709)' (Laws of Malaysia, n.d.), the UK Research and Innovation policy (UKRI, 2023), and the UK Medical Research Council (MRC, 2023). Approvals from two major institutions were obtained prior to the commencement of the study: the Faculty of Health and Medicine Research Ethics Committee (FHMREC) of Lancaster University and the Malaysian Ministry of Health (MoH) Medical Review and Ethics Committee (MREC). The ethical concerns addressed in the research are described in the subsections below.

4.5.2 Participants Access

The potential participants were selected from the population group under treatment at the outpatient clinic of the Penang General Hospital. The selection process commenced after approvals were obtained from the relevant authorities, including the Malaysian Ministry of Health (MoH) Medical Review and Ethics Committee (MREC), the Penang General Hospital Director, and the Faculty of Health and Medicine Research Ethics Committee (FHMREC) of Lancaster University. The researcher did not interview participants who had been treated or managed by him before to avoid potential ethical issues. Therefore, an in-house psychiatrist had to manage the participant recruitment process following a prior briefing session. All questions posed by the psychiatrist were answered accordingly.

The psychiatrist selected participants based on the existing patient list, and their clinical notes were probed to determine their study eligibility. Those who fulfilled the study criteria were verbally informed and provided with the study poster (*Appendix 14*) and the participant information sheet (*Appendix 15*) to read. Interested participants who agreed to join had their particulars (i.e., name and contact number) taken to be contacted by the researcher for an interview arrangement. The practice limited the likelihood of the participants feeling coerced into the study if the researcher did the recruitment. The psychiatrist was regularly reminded about the recruitment process to ensure no coercion was involved. Besides, the researcher also informed the recruited participants about this before the interview began. Please refer to *Appendix 16* for the participant recruitment flowchart.

The recruitment process was conducted without coercion, and those who refused to participate were assured that it would not affect the clinical care they would subsequently receive. Participation was strictly voluntary, and no incentives were given. Those interested in participating in the study were given the informed consent form (*Appendix 17*) by the researcher to read and sign before the interview began. They were also informed that they had the option to withdraw from the study at any time, either during or after the interview. Those who intended to withdraw after the interview had begun were given two weeks from the date of the interview to do so. In that case, their contribution to the study would be removed. However, if the request were made more than two weeks after the interview, their data withdrawal would not be possible if the data had been analysed and put into themes. No participants requested to withdraw from the study at the time of writing.

4.5.3 Interview Conduct and Safety Measures

As this is independent research, Lancaster University's lone working policy was followed and adapted to safeguard the researcher's physical, emotional, and mental well-being

(Lancaster University, 2016). This study proposed minimal risk to the researcher and the participants. Several risk assessments and controls regarding the researcher's safety were planned and implemented accordingly, as described and justified below.

The interviews were conducted at the psychiatric clinic. The interview room was suitable for its purpose and was located away from busy areas to limit potential distractions as much as possible. Additionally, the interview seating arrangement provided the interviewer with the easiest access to the door, allowing him to seek help if needed. Other preparations included ensuring the room temperature was comfortable during the interview by turning on a fan and/or an air conditioner.

On the interview day, the researcher informed the psychiatrist of the expected end time for the interview. The psychiatrist was also asked to check on the researcher if she had not received a call from the researcher after the time had passed. During the study, a participant was noted to be unwell during the informal mental status examination (MSE) conducted by the researcher, and the interview was terminated. The reason was tactfully explained to the individual, who was referred to the psychiatrist for further management.

The interviews were conducted during regular clinic hours when help was readily available. The researcher's phone was placed within reach and was always turned on but silent throughout the interview. The researcher also carried a whistle in his pocket in case it was needed to alert others around the area of an emergency during the interview. No unfortunate events throughout the study affected the researcher’s well-being.

As the participants' experiences in their mental health and related challenges were explored, the effect of such exploration on their mental state was constantly monitored. There were no disturbing incidents that negatively impacted the participants during the study. After each interview, a debriefing was performed for the participants, following the FHMREC

debriefing guidance. Please refer to *Appendix 18* for an example of the debriefing template used in the study.

4.6 Reflections

The research design of this qualitative study aimed to answer the research question guided by the research objectives. The answer to this study was hoped to add insight about self-regulation among individuals with bipolar disorder, particularly in the socio-ecological context of Malaysia. As a novice researcher in qualitative studies, I thoroughly considered the best pragmatic and practical approach to use.

Data collection began once the relevant authorities approved the research. It proceeded without any issues. However, several things are worth mentioning to reflect the learning experience during the process. During the first two interviews, i.e., pilot interviews, the participants appeared to have difficulty understanding and appeared reluctant to answer certain questions. One example was when the religious aspect of their self-regulation was asked. Therefore, the interview guide was amended in such a way that allowed a 'more open' approach in eliciting responses from them. The newly amended interview guide was found to be more effective. However, the researcher now had to make active attempts to associate each response with potentially relevant socio-ecological aspects and ask further questions when necessary. This interview method allowed for less restrictive communication where the participants were able to share their experiences on what they felt was appropriate to them.

Data transcription and translation were difficult when participants conversed in Manglish or jumped rapidly from one point to another during the conversations. To avoid missing any part of the conversation from being translated and transcribed, those parts were played repeatedly until they were fully captured. Additionally, to further ensure the accuracy of the translation and transcription process, the interview recordings and transcripts were

shared with the psychiatrist involved in participant recruitment, who was also familiar with the cultural context of the study population, for review.

Data analysis was the most challenging part of this qualitative research, not only due to the large number of data units to process and analyse, but also due to the nature of the analysis approach, i.e., the requirement for no overlapping of codes within categories (Christodoulou, 2024). Moreover, an additional method was incorporated into the data analysis process, whereby the codes within each category were examined for their connections with one another. This step was necessary to show their connections transparently and subsequently helped in constructing the themes. Finally, the data analysis was done manually using Microsoft Word. The reason for this was my limited skill in using qualitative research software. Nevertheless, by using the more traditional approach in this part of the research, I learned many things that I would not have been able to learn otherwise, for example, learning to handle copious amounts of data on papers and devising strategies to organise and keep track of them. Although this approach seemed unnecessary and tedious in this day and age, I chose to see it as a training ground to build certain skills, such as organisation, patience, and reasoning.

As this is independent postgraduate research, the findings' interpretation of this study was based on my understanding of the participants' experiences in their self-regulation while living with bipolar disorder, and at the same time acknowledging the influence of hidden dynamics in their experiences, for example, socio-oriented values on mental health issues. My viewpoint was expressed through a transparent description supported by verbatim from the interviews.

CHAPTER 5 –RESULTS

5.1 Study Participants' Characteristics

A total of 15 individuals with bipolar disorder were interviewed. Their basic particulars, including their gender,age range, occupation, and ethnicity, are presented in *Table 8* below.

Participant	Gender	Age range	Occupation	Ethnicity
P1	Female	41-50	Clerk	Chinese
P2	Female	21-30	Teacher	Malay
P3	Male	21-30	Engineer	Malay
P4	Female	21-30	Housewife	Chinese
P5	Female	41-50	Unemployed	Indian
P6	Male	21-30	Assistant manager	Chinese
P7	Female	41-50	Businesswoman	Chinese
P8	Female	21-30	Unemployed	Malay
P9	Female	11-20	University student	Chinese
P10	Male	31-40	Property agent	Chinese
P11	Male	51-60	Salesman	Chinese
P12	Female	31-40	Nurse	Malay
P13	Female	51-60	Church volunteer	Chinese
P14	Male	31-40	Food delivery/Part-time businessman	Indian
P15	Female	21-30	Businesswoman	Malay

Table 8: Participants' demographic particulars

5.2 Overview of Research Findings

The research findings described below were obtained after a lengthy and rigorous process of data collection and analysis. The initial data collection, i.e., the first two interviews, was somewhat difficult as the participants had difficulty understanding the questions asked about their self-regulation in bipolar disorder. I then reflected on the experience and, after discussing it with my supervisors, I modified the interview approach, including the interview guide. This new approach yielded a more positive experience, as the participants appeared to respond more effectively to the questions about their self-regulation experiences. In this approach, I was able to reflect on and consider their responses in an attempt to associate them

with the relevant socio-ecological aspects, which helped focus the interview in that direction. Data sufficiency was achieved by 12 participants, with an additional three participants being interviewed before recruitment was terminated. The additional recruitment was done to ensure that data sufficiency had been reached.

5.2.1 Themes and causal explanations development

Themes and causal explanations were developed using the 4Cs (Coding, Clustering, Connecting, Constructing) approach described in Chapter 4 of this thesis. The subsections below outline the findings from each approach. A more detailed description of the research findings is in Section 5.3 below.

5.2.1.1 *Coding and clustering*

The coding and clustering processes described in Chapter 4 aided the development of nine categories, where codes with consistent meanings were assigned to their respective categories. These were (1) Illness-related experiences, (2) Interpersonal relationships, (3) Physical strategies, (4) Surrounding environment, (5) Hopes and desires, (6) Life stressors, (7) Cognitive and emotional strategies, (8) Social media, and (9) Spirituality/religion.

5.2.1.2 *Connecting and constructing*

Using the one-mode network method and the relational map diagram, the connections between and among the nine categories were explored and examined (see *Appendices 11* and *13*). This ultimately contributed to the development of the study's five themes and two causal explanations. The themes were arranged from highest to lowest according to the number of connections each category has with the other categories. The themes generated facilitated the development of causal explanations for participants' experiences, intending to answer the research question.

The themes were (1) Well-being as a multidimensional experience shaped differential engagement across culturally influenced biopsychosocial-spiritual life domains , (2) Physical strategies shaped by interpersonal relationships within the surrounding environment , (3) Cognitive and emotional strategies used in response to stress , (4) Personal hopes, desires, and spiritual or religious influences on well-being , and (5) The mixed implications of social media for well-being The two causal explanations were (1) An individual's perception of and response to his/her illness and well-being experiences are shaped by culturally influenced values placed on the biopsychosocial-spiritual life domains, and (2) Individuals are dynamic and resourceful agents actively approaching life circumstances in many ways that are beneficial to them.

5.3 Description of Research Findings

5.3.1 Themes

5.3.1.1 *Theme 1: Well-being as a multidimensional experience shaped differential engagement across culturally influenced biopsychosocial-spiritual life domains*

Participants' experiences of illness and well-being differed in the aspects of life domains that contributed to improving their conditions. All had engaged in at least one of the biological, psychological, social, or spiritual domains, which could be viewed from the background of the socio-ecological standpoint of their experiences. Given the integral and prevalent nature of socio-ecological influence in individuals' lives, for example, one's culture, and the focus on describing themes in this section, the socio-ecological perspective will not be described here. In addition, this study aims to understand the lived experiences of individuals living with bipolar disorder in their socio-ecological context, where socio-ecological factors were treated as influences shaping their experiences. Hence, they are not the object of analysis here. A description of the relevance of the socio-ecological perspective is provided in Chapter 6 below.

Participants highlighted the importance of medication in illness control despite their side effects; one participant (P10) said, *"The medicine I am taking causes sedation and drowsiness. But they can help control mood and prevent manic symptoms...."* The medication's effectiveness caused them to adhere to it: *"I take my medication diligently"* (P5). Their subsequent actions in addressing treatment issues, such as medication side effects or illness conditions with their doctors showed their active engagement in the treatment process: *"I asked the doctor not to increase the dosage too much but to do so slowly to allow my body to get used to it"* (P13); *"I then realised I was not right, and I told the doctor that the medication did not suit me"* (P11).

The quality of relationships with the mental health professionals also determined the outcome of the treatment process. The participants' perceptions of their doctors or other mental health professionals influenced the relationships and their illness approach. For example, one participant expressed concern when she perceived that she was not receiving the attention she expected from her doctors during treatment: "*So if I feel that the doctor is not interested in exploring my issues further, I will not tell them"* (P12). The importance of having a doctor perceived to be helpful was highlighted by another participant who believed that that had changed her condition: *"I thought I wouldn't know what else to do if the fifth doctor were not helpful. Maybe I need to find another doctor. But I am grateful that my fifth doctor…suits me…He has made me want to improve myself. If I feel I have not improved before the clinic visit, I will wait until I have improved first…So, when I see the doctor, I am better than previously"* (P15). This statement may also suggest how the participant believed they should feel or be perceived as behaving by their doctor to indicate wellness. Regardless, these experiences demonstrated that the participants had played an active role in deciding on the best actions to manage themselves based on their previous encounters and experiences. In another example, a participant stated, *"I will also arrange to see my psychologist on the same day*

before meeting the psychiatrist. I will discuss my condition with her, and it has helped me. When I see the psychiatrist, I will talk about my medication, but in other discussions, I do it with the psychologist. With this method, I am now stable for the past five to six months" (P2).

While the relationship established with mental health professionals is essential, the treatment environment is similarly important, potentially affecting the treatment outcome: *"Over there, several doctors cramped in a room with their patients. It was very noisy sometimes, and it was difficult to communicate properly. So, the treatment was affected by the environment"* (P13). On the other hand, another participant stated that the environment at the Occupational Therapy Centre helped her: *"I feel positive there. Probably, it's the environment…"* (P8). These conditions highlighted how the participants felt regarding the treatment support based on their environment, which affected their well-being in two contrasting situations.

Besides the mental health professionals, individuals with whom the participants have regular contact, such as their family and friends, also exert a significant impact on their illness experiences. One participant shared about her aunt's help in ensuring her medication intake when she was unwell: *"At the beginning, when I could not accept the illness, and I was struggling to cope with it, she looked after my medication"* (P5). While some received positive support from their loved ones, others were less. Another participant described her experience as *"My family believes that those with mental illness are crazy…They believe that mental illness can just be treated with medication"* (P2). However, despite the negative perceptions of their illness experience by others, they took the initiative by involving others to improve their situation; *"My aunt and some friends explained it* (the illness) *to them* (the family)*. I have also asked my doctor to explain to them. But I don't know if they truly understand"* (P2); *"We* (the participant and her sibling) *shared things like our emotions, how I went through bipolar disorder, and how to explain to my father what bipolar disorder is. So, I need her to help make*

my father understand bipolar disorder" (P15). Getting help from others showed the participants' efforts in their attempts to improve their situations despite living with complex psychological experiences and having to deal with individuals who lack an understanding of mental health issues.

The personal lives of others, especially their families, would also directly or indirectly affect their illness condition and well-being. One participant shared how her father, a stroke patient, had affected her condition: *"Some time ago, as I was beginning to adapt to the treatment, my father had a stroke. I blamed myself for that, and it worsened my condition…I felt stressed when my father was in a bad mood and scolded my mother"* (P2). Another participant shared how her husband's friends had influenced him and negatively affected her mood and their relationship: *"He wasn't like that until his friends kept talking to him about this. Just two days ago, I heard his friends ask him what I did to look young. He suspected me of having an affair with a younger man who helped me look that way, but I did not"* (P7).

In situations where conflicts with others happened, they attempted to minimise the impact of the conflicts by adopting some ways they thought would be helpful: *"When I interact with them, I check their mood to see if they are okay. If they are, I will normally interact with them. If not, I will say what is important. I will keep the rest to myself"* (P15); *"…every day when he wakes up, I have to look at him to decide whether he is happy. If he is happy, I can proceed with my work. If he is not happy, be it after drinking alcohol or having an argument with others the night before…I avoided him. I pretended I did not see him"* (P7).

Spiritual and religious aspects became an integral part of the participants' lives, as their practice and involvement provided a sense of support and direction: *"There are certain temples with shamans, and I go seek their advice. It's like a guidance for me"* (P9). Besides the personal advantage that the participants received from their spiritual or religious involvement, others

were also helped by their improvement, as one participant explained: *"I am Buddhist and regularly attend meetings. In them, we are encouraged to talk to others. So when I see someone with similar issues, I encourage them. I feel happier when I encourage someone"* (P10).

5.3.1.2 ***Theme 2: Physical strategies shaped by interpersonal relationships within the surrounding environment***

The physical strategies employed by the participants were influenced by the nature of their relationships and surroundings, which can also be viewed from the perspective of socio-ecology, similar to Theme 1 and the other remaining themes. As explained above, a detailed description of the socio-ecological perspective is in Chapter 6 below.

Participants emphasised the importance of physical strategies to help them maintain a sense of well-being. Some strategies used were for enjoyment and to feel good, such as exercises: *"…I have started joining them in activities like hiking and playing badminton…it makes me happy"* (P12). Their participation in the activities was also influenced by others. For example, one participant mentioned that her participation in physical exercises was motivated by her husband's encouragement to improve her sleep: "*My husband encouraged me to exercise and not take sleeping pills"* (P1). Being with friends was also reported to be a motivating factor for engaging in physical activity, as one participant said, *"…I can join my friends. Being with friends makes me happy. We all like aerobics dance"* (P13).

Social activities allowed the participants to bond with their friends and family. This bonding benefited their mental health condition as they would receive monitoring and care from others: *"I have one close friend who has bipolar disorder…He usually calls me once a month, and we update each other about ourselves…Sometimes, I would tell my other friends about my mood condition, and they would help monitor me"* (P10). Although social engagement was primarily with people they knew well, participants also engaged with those

they were less familiar with. One participant reflected on his experience of meeting with strangers, which he found helpful: *"I tend to meet up with strangers. I know them through mobile apps. I feel strangers are more friendly. That helps a lot…I can spend time with them, like watching movies"* (P3). This showed that their commitment to any relationship depended on how it helped and made them feel.

The activities performed by the participants were also influenced by their surroundings. One example of such a factor was the availability of proper facilities in their surroundings, enabling them to carry out their activities. One participant explained the frequency of engaging in badminton as *"depending on the availability of the badminton court"* (P1). Those who did not have easy access to the relevant facilities would find other means, revealing their adaptable approach to the resources available for their well-being. A participant reflected on what she did when she could not join the exercise due to the weather: *"But I can't join if it rains. I will do some exercises at home with YouTube on. I don't like other forms of exercise. I like music"* (P13). Their adaptive nature is also evident when they encounter conflicts with those around them. In those situations, they would utilise strategies perceived as helpful to them. One participant shared how she diverted her attention to her work rather than being at home, where the source of the conflict was: *"I like to be occupied and busy. I don't like to be at home. I don't like to deal with my family. I like to be with outside people. I like it when people acknowledge and agree with me"* (P7).

Not all physical activities employed by the participants involved others. Some strategies adopted were performed independently, such as cooking and leisure driving. Nonetheless, these solo activities also helped the participants feel better or limit their unpleasant feelings in a particular environment. Participants recalled how these activities helped them: *"I listened to songs while driving…At that moment, I felt that I had escaped* (from home)*…It's like a therapy for me"* (P15); *"Recently, I have been learning to cook…I then realised that cooking could also*

be a form of leisure activity" (P6). Cigarette smoking was used sparingly by one participant after considering its negative implications: "*I sometimes feel tired and stressed when I return from work. Smoking a cigarette gives you a relaxing sensation… I tend to smoke more when I am stressed…with a controlled quantity as long as I don't overuse them. For example, two to three sticks of cigarettes a day should not be a problem"* (P11). The realisation of the impact of using different physical strategies helped them decide for themselves the propriety and usefulness of those strategies, which revealed the different adaptation responses of the participants.

During their activities, participants reported that they had acquired important skills necessary for their daily lives. One participant claimed that his online gaming activity had allowed him to develop emotional control and communication skills, which in turn helped him perform better at work: "*I have learned about emotional control and communication while playing games…*"*In my job, where I help manage a company, gaming activity allows me to understand that everyone has a role…It also helps me communicate with them better- just like in a game. So it's like a strategy"* (P6). This experience showed the occurrence of self-learning through engagement with physical strategies by the participants.

5.3.1.3 ***Theme 3: Cognitive and emotional strategies used in response to stress***

The participants' stressors took many forms. Generally, their sources of stress originate from themselves or their environment. Regardless, in the presence of these stressors, they applied various cognitive and emotional strategies to help maintain their well-being. Self-awareness of one's conditions and personal needs was one such strategy. For example, being aware of their illness condition and the role of medication allowed them to manage their condition better using medication, as one participant realised that it was her responsibility to do so, *"When I told the doctor I did not want medication that would make me drowsy because*

I had to drive, they (the doctor) *listened and gave me the medication to try. So, the treatment I receive now is different than before. My previous doctors appeared to be forcing me to take medicine based on what they wanted without being aware that this is my responsibility that I need to handle"* (P15). While medication was perceived to be important, it only helped *"to a certain extent"* as they still *"have to come out off it"* (P5), which a participant referred to as coping with emotional issues to maintain well-being besides using medication.

The awareness of their conditions at that time enabled them to exert some effort to build willpower and *"have the courage to face the issue"* (P4), as claimed by one participant. Another participant highlighted how his awareness of his emotions determined his subsequent actions to engage with important decisions: *"When I have mood swings, I let myself rest for a while. I inform my staff that I need to take a short break to calm myself…before attempting to deal with the issue"* (P6). Being intentional to stay positive *"by cultivating an expectant heart"* (P4) for potential life challenges allowed the participants to stay alert and proactive in effectively dealing with them, which a participant reflected on his experience: *"…I look at the positive side of things…look out for opportunities…and then do what I can to be positive. If you are positive and look out for opportunities, the outcome will still be positive, no matter how bad the situation is"* (P6). Besides, the impact of a situation would likely be different and more positive when the issue was *"approached from a different angle"* because *"what was perceived might not necessarily be true"* (P9), as one participant learned from her previous experiences. Hence, learning to see things from a different perspective was another cognitive and emotional approach to limit the effect of stress-related situations.

Recognising a particular activity's importance or relevance to the participants would encourage them to do it. However, being aware was not a sufficient motivating factor, especially when dealing with a difficult situation. A participant explained how she needed to push herself out of her comfort zone to exercise, realising the importance of exercise to her

mood and sleep, and the approach she used after falling short of her expectations: *"...I know that exercise is helpful for me, and every time I exercise, I feel relaxed and can sleep better…Sometimes, I force myself to exercise about two days a week, but I can't on other days because I don't feel like doing it when I am depressed…I know that not doing anything will not help me. So, I force myself to get up to do some exercise. However, there are times when I can't do it. When that happens, I feel guilty, but I will tell myself it's okay. At least I can do it at least twice a week. It's better than nothing. I console myself"* (P13). The experience shown by the participant indicated that positive affirmations given to oneself acted as a form of buffer against negative feelings when one's target was not achieved, which was necessary to keep the efforts going.

Selective focus was used to improve one's situational outlook. The participants learned about focussing on self-improvement and learning to deal with negative feelings from unpleasant situations, as exemplified by a participant: *"So, I spent these two years improving myself. I studied acupuncture in China and have already graduated…I dealt with stress by focussing on my career…I use this method to encourage myself"* (P7). Adjusting to one's routine was also reported as a helpful approach when dealing with stressors: *"...I try to change or adjust my routine…I have started running, hiking, and playing badminton with my friends. So, when I engage in those physical activities, I will become tired and able to sleep at night"* (P12). Efforts to adopt certain behavioural strategies by focussing on improving one's condition were also part of the self-regulation process to maintain well-being: *"Money is the cause of arguments in the family, especially my father. I am very careful with how I spend my money"* (P2).

5.3.1.4 ***Theme 4: Personal hopes, desires, and spiritual or religious influences on well-being***

Hopes and desires reflected the participants' wishes to attain something perceived to be beneficial to their well-being. This aspect was the driving factor for the participants' subsequent behaviour. For example, one participant stated that her hope to *"earn enough money to repay my* (her) *husband"* financially had made her *"want to be a superwoman"* (P7) and caused her to work hard. However, not everyone had the same circumstances or opportunities to pursue what they hoped for due to challenges such as fear. However, they somehow did something to improve their situations, regardless, as shared by one participant: *"After being diagnosed with bipolar disorder, I am not the same. I was active with several organisations in the past. Last year, I started volunteering at a book festival. I was initially scared, but I wanted to regain my previous self. It was hard, but I tried…I enjoyed the process. I felt proud because I could do it"* (P2). This experience demonstrated the application of a 'stepped approach' in achieving one's goal or target in life through gradual progress.

Participants with spiritual and religious backgrounds directed their energy to these aspects to improve their well-being. One participant shared that using religious practices helped him feel better in difficult moments: *"So when I practice the prayer, I feel more confident, and things go smoothly for me"* (P14). While a personal approach to religious practices was deemed important, the spiritual community's support was highlighted as essential in the life of another participant: *"The church has been very kind and supportive…I feel involving the church in our lives really helps me"* (P13). Another participant used religious activities as a support base for another individual with mental health issues and received similar support in return: *"We care for each other like normal friends would do. He* (the participant's friend) *would look at his condition from a Christian perspective, and I would do the same from a Buddhist perspective. Sometimes, I would join his church meetings, and he would do the same. We support each*

other" (P10). Religion and spirituality, therefore, offered the participants another perspective of looking at their mental health issues.

5.3.1.5 ***Theme 5: The mixed implications of social media for well-being*** Mass or social media were used not only for enjoyment and entertainment but also for learning and self-expression. One such use claimed by a participant was, *"I frequently surf the Internet to learn certain things. I also listen to music and watch movies* (with it)" (P9). Using this form of information technology resulted in participants reporting positive well-being; as one participant put it, *"Another coping strategy I use is listening to podcasts when I drive. It's relaxing for me…"* (P6). Another participant claimed she learned from social media not to disclose sensitive personal information at the workplace: "…*I read on social media that you do not disclose sensitive information to your colleagues"* (P3). While the media were used differently and for various purposes, one commonality in their usage was that participants believed in the media's contributions to their well-being. However, one participant shared that their unregulated use resulted in negative implications: "*When I am busy with social media, I have difficulty sleeping at night, I feel heavy-headed, and I experience stress"* (P14).

Social media use when one was unwell was also reported as potentially triggering negative consequences due to the unregulated sharing of personal matters. In such a situation, self-regulation of their use was necessary to prevent any possible repercussions: *"I use Facebook to express myself, but I do it discreetly. If I have a mental breakdown, I will temporarily deactivate my Facebook account because I worry that I may share more than I should, maybe something emotionally driven…if I am sad, angry or upset, I will avoid it so as not to embarrass myself"* (P12). The participants' experiences with social and mass media use demonstrated that their use involved self-understanding and control to maximise the benefits for their well-being.

5.3.2 Causal explanations

5.3.2.1 ***Causal explanation 1: An individual's perception and responses to illness and well-being experiences are shaped by culturally influenced values placed on the biopsychosocial-spiritual life domains***

This causal explanation focusses on Theme 1 (Well-being as a multidimensional experience shaped differential engagement across culturally influenced biopsychosocial-spiritual life domains), highlighting the influence of the biological, psychological, social, and spiritual domains on individuals' experiences of illness and well-being. The extent to which each domain impacts individuals varies in terms of its relevance and importance to them. They might encounter many aspects in each domain. These aspects help them make sense of their experiences and develop practical responses to deal with them.

5.3.2.2 ***Causal explanation 2: Individuals are dynamic and resourceful agents actively approaching life circumstances in many ways that are beneficial to them***

This causal explanation focusses on Theme 2 (Physical strategies shaped by interpersonal relationships within the surrounding environment), Theme 3 (Cognitive and emotional strategies used in response to stress), Theme 4 (Personal hopes, desires, and spiritual or religious influences on well-being), and Theme 5 (The mixed implications of social media for well-being). This explanation highlights the tendency for individuals to be proactive and diligent in utilising the available resources around them to improve their life circumstances at that time. This information demonstrates their ability to manage issues resiliently by utilising the resources they deem suitable and beneficial.

5.4 Results Summary

The two causal explanations do not operate independently but in tandem with each other to construct an understanding of the participants' experiences of self-regulation in bipolar disorder. Following the descriptive structure of the overall research findings suggested by Christodoulou (2024), the results of this research, which answer the research question, can be summed up as follows (see *Table 9* below):

Resilience-related self-regulation among individuals with bipolar disorder in the socio-ecological context in Malaysia is characterised by *[causal explanations]* (i) An individual's perception and responses to illness and well-being experiences are shaped by culturally influenced values placed on the biopsychosocial-spiritual life domains, (ii) Individuals are dynamic and resourceful agents actively approaching life circumstances in many ways that are beneficial to them. This conclusion is based on *[themes]* (I) Well-being as a multidimensional experience shaped differential engagement across culturally influenced biopsychosocial-spiritual life domains , (II) Physical strategies shaped by interpersonal relationships within the surrounding environment, (III) Cognitive and emotional strategies used in response to stress, (IV) Personal hopes, desires, and spiritual or religious influences on well-being, and (V) The mixed implications of social media for well-being , which is manifested in our data as *[categories]* (1) Illness-related experiences, (2) Interpersonal relationships, (3) Physical strategies, (4) Surrounding environment, (5) Hopes/desires, (6) Stressors, (7) Cognitive/emotional strategies, (8) Mass/Social media, and (9) Spirituality/Religion.

Categories	Themes	Causal explanations
1) Illness-related experiences 2) Interpersonal relationships 3) Physical strategies 4) Surrounding environment 5) Hopes/Desires 6) Stressors 7) Cognitive/Emotional strategies 8) Mass/Social media 9) Spirituality/Religion	I) Well-being as a multidimensional experience shaped differential engagement across culturally influenced biopsychosocial-spiritual life domainsPhysical strategies shaped by interpersonal relationships within the surrounding environment II) Cognitive and emotional strategies used in response to stressPersonal hopes, desires, and spiritual or religious influences on well-beingThe mixed implications of social media for well-being	i. An individual's perception and responses to illness and well-being experiences are shaped by culturally influenced values placed on the biopsychosocial-spiritual life domains ii. Individuals are dynamic and resourceful agents actively approaching life circumstances in many ways that are beneficial to them

Table 9: Summary of research findings

CHAPTER 6- DISCUSSION

In this qualitative study, multiple aspects of the participants' self-regulation behaviour could be sorted into nine categories. The relationships between and among the categories helped in the development of the five themes. Finally, through retroductive reasoning of the categories and themes, two causal explanations for their self-regulation behaviour were developed. The categories, themes, and causal explanations are listed in Chapter 5 above. The results show that individuals with bipolar disorder in Malaysia are capable of regulating themselves by aligning their activities dynamically and resourcefully with the values pertinent to them to improve their well-being. The dynamic self-regulation process is observed in various methods or strategies adopted based on their circumstances and environment (i.e., socio-ecology), which involve the biopsychosocial-spiritual domains. The biological, psychological, social, and spiritual domains were noted during the data analysis process. These domains were not predetermined as part of the study, but the findings demonstrated their role in this research. The incidental finding of these perspectives in this study shows their relevance, which is increasingly emphasised in healthcare settings (Van Denend et al., 2022).

The findings of this study can be situated within the broader literature on self-regulation in bipolar disorder, which conceptualises well-being as requiring more than symptom control alone. Previous research has largely conceptualised self-regulation in bipolar disorder in terms of symptom monitoring, medication adherence, and behavioural strategies aimed at relapse prevention (Miklowitz & Johnson, 2009). Consistent with previous research, participants in this study described active engagement in cognitive, emotional, and behavioural strategies, such as routine management, emotional awareness, and selective disclosure, to maintain well-being. The current findings also demonstrate that these strategies do not happen in isolation but are shaped by external factors such as interpersonal relationships, environmental influences, and culturally embedded expectations. This study contributes to the existing literature by

highlighting self-regulation within the socio-ecological context. The present findings show that family involvement, healthcare interactions, social norms, and culturally shaped meanings of life experiences are among the factors that influence how individuals engage with self-regulatory practices. This observation underscores the need to move away from an individualist conceptualisation of self-regulation toward one that recognises the influence of external contextual conditions (Panter-Brick & Eggerman, 2012).

This thesis extends the literature by showing how self-regulation practices are observed as contextually embedded processes rather than as purely individual skills. In this study, participants described actively seeking and adapting strategies across various aspects of the biopsychosocial-spiritual domains. Those choices were shaped by interpersonal relationships, surrounding environments, and broader socio-ecological conditions. This finding aligns with the evidence that socio-ecological conditions influence one's behavioural approach in mental health conditions, in which one example is that relational contexts matter for bipolar outcomes and that family-oriented interventions can contribute to improved outcomes and functioning in bipolar disorder (Reinares et al., 2016).

The following subsections include the mapping of themes onto the conceptual framework introduced and described in Chapter 2 and the discussion of the themes and causal explanations related to self-regulation in bipolar disorder from a socio-ecological perspective, particularly cultural influences, as well as the resilience and biopsychosocial-spiritual aspects of self-regulation in bipolar disorder. Additionally, the subsections address the study's strengths and limitations, its clinical implications, future directions, and the researcher's reflections on the study. The discussion section was written, where relevant, with socio-ecological meanings from the interview data in mind.

6.1 Thematic Mapping onto the Conceptual Framework

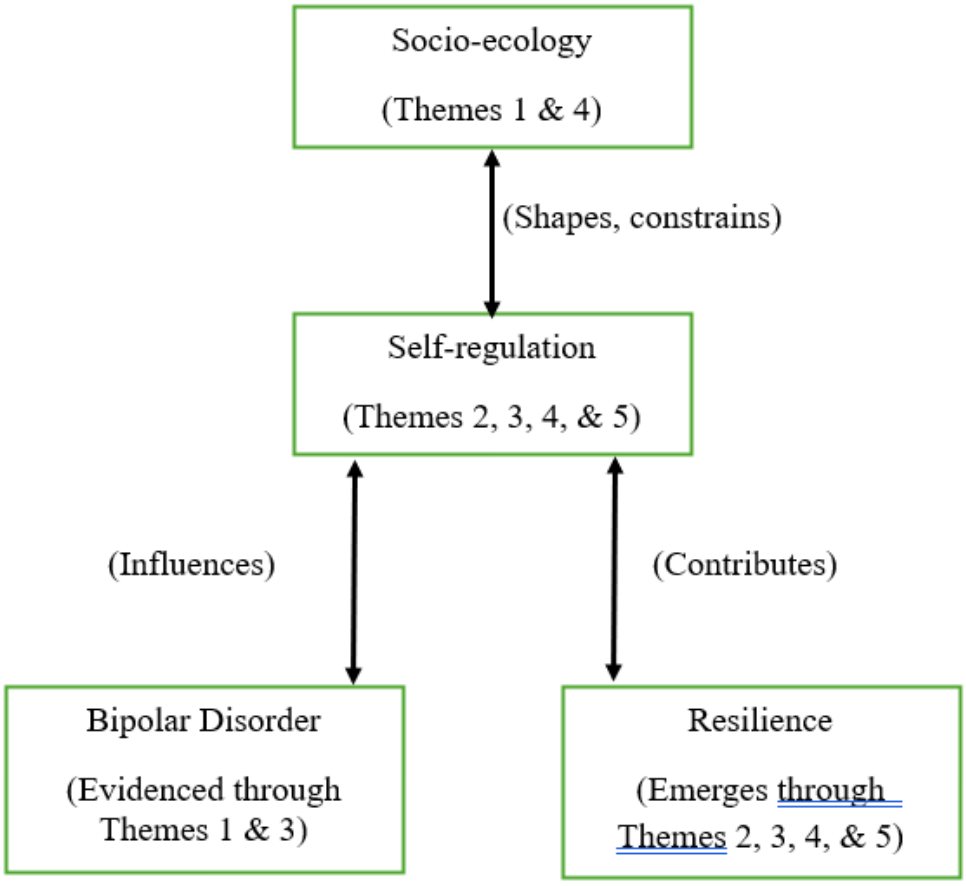


Figure 5. Conceptual framework with empirical themes mapped onto key constructs

This conceptual framework illustrates how self-regulation operates as a central construct with a dynamic process through which individuals living with bipolar disorder manage their well-being within a broader socio-ecological context. The framework integrates these constructs and processes and provides a structure for understanding resilience development over time. The construct of socio-ecology in this framework refers to the broader socio-environmental context within which individuals' experiences are embedded. Theme 1 and the contextual aspects of Theme 4 (e.g., cultural, religious, and spiritual influences) map onto this construct. These themes demonstrate that well-being is experienced

as multidimensional and that engagement with biological, psychological, social, and spiritual domains is influenced by culturally mediated values. The socio-ecological context shapes which domains are prioritised, thereby influencing how participants select self-regulatory practices.

The self-regulation construct is positioned at the centre of the framework and conceptualised as an ongoing process of cognitive, emotional, and behavioural adjustments and adaptations. Themes 2, 3, 5, and the motivational aspects of Theme 4 map directly onto this construct. Theme 2 captures behavioural and physical strategies of self-regulation shaped by interpersonal relationships and environmental conditions. Theme 3 reflects cognitive and emotional self-regulation processes mobilised in response to stressors. Theme 5 illustrates the use of social media, demonstrating participants' active behavioural responses with regard to its use to maximise benefits and minimise harm. The motivational aspects of Theme 4 provide direction, meaning, and a sense of continuity that sustain effort over time.

Bipolar disorder is positioned as a condition that generates varying self-regulatory demands. Although it is not represented as a theme in itself, its influence is evident across the themes through illness-related experiences and stressors embedded within the themes (Themes 1 & 3).

Resilience is conceptualised as a dynamic and emergent process, and within this framework, resilience develops over time through sustained engagement in self-regulatory practices under related socio-ecological conditions. Repeated self-regulatory practices involving cognitive, emotional, and behavioural regulation, supported by motivational processes, contribute to the participants' capacity to adapt and maintain functioning. Therefore, resilience is observed as an explanatory construct that captures how adaptive capacities are built and sustained (Themes 2, 3, 4, 5).

6.2 Themes and Causal Explanations of Self-Regulation in Bipolar Disorder from the Socio-Ecological Perspective

As described in Chapter 4, the coding categories that helped form the themes and causal explanations in this study are interrelated. Therefore, even though the themes and causal explanations are discussed separately in different sections within the subsections below (i.e., sub-subsections), the points addressed may be connected. The discussion of the socio-ecological aspect in relation to the findings of this study will be presented in a separate subsection to avoid repeating the same points in the themes and causal explanations.

6.2.1 Themes

6.2.1.1 *Theme 1: Well-being as a multidimensional experience shaped differential engagement across culturally influenced biopsychosocial-spiritual life domains*

This theme highlights that the participants' experiences with their health and illness, specifically related to bipolar disorder, are dependent on the factors included in their living activities. The factors involved stem from biological, psychological, social, or spiritual sources, which are person-specific and relevant to each individual's context and culture. Some aspects emphasised by the participants include medication adherence, physical exercise, sleep, relationships, health facilities, public infrastructure, and religion or spirituality. The biopsychosocial-spiritual perspective reflects a multifaceted range of human needs, thus allowing the use of various approaches to address those needs by individuals with mental health issues (Van Denend et al., 2022).

6.2.1.2 *Theme 2: Physical strategies shaped by interpersonal relationships within the surrounding environment*

Following Theme 1 above, the physical approaches used by the participants were intended to maintain their well-being and serve as a form of coping to manage unpleasant life

situations. Some physical strategies required the involvement of others, such as sports or group exercises, while others did not, like cooking or leisurely driving. The strategies used were dependent on the types of resources available to them, for example, the accessibility of sports facilities, as reported by one participant. In a systematic review, six areas of strategies have been identified as important in bipolar disorder, namely diet, sleep, physical activity, stress management, social relationships, and substance use (Simjanoski et al., 2023). These areas had been mentioned by the participants in this study, with substance use being represented by cigarette smoking. The strategies employed can be sorted into the biological and social domains.

6.2.1.3 *Theme 3: Cognitive and emotional strategies used in response to stress*

When faced with stress-inducing situations, participants reported employing psychological approaches, including cognitive and emotional stress management strategies. Much research has proven the efficacy of using psychological strategies in dealing with bipolar disorder. One well-known method is Cognitive Behavioural Therapy (CBT), which emphasises cognitive, emotional, and behavioural techniques (Sadock et al., 2015). Although the participants in this study did not specifically employ CBT methods, their strategies, such as being mindful of their condition and subsequently altering their behaviour, and learning to view a situation differently, helped maintain well-being.

6.2.1.4 *Theme 4: Personal hopes, desires, and spiritual or religious influences on well-being*

Personal hopes and desires, as well as spiritual and religious practices, both serve to foster well-being. Personal hopes and desires can act as drivers to improve an individual's future outlook by encouraging behaviour change to meet their aims. A study examining the hopes and wishes of individuals with mental health issues, including those with bipolar disorder, found that they were motivating factors to preserve their well-being, which

contributed to their recovery (Lai et al., 2021). On the other hand, spirituality and religion have been extensively studied and are claimed to be helpful for some individuals in managing bipolar disorder (Pesut et al., 2011). Given the importance of spirituality in influencing mental health (Sadock et al., 2015), it has been incorporated into one of the mental health models, namely the biopsychosocial-spiritual model (Campbell & Rohrbaugh, 2013), as described in Section 6.3 below.

6.2.1.5 *Theme 5: The mixed implications of social media for well-being*

Social media was found to have both positive and negative effects on the well-being of participants in this study. Social media was used as a source for learning, communication, and leisure. Sadagheyani and Tatari (2021), in their study investigating the role of social media on mental health, listed its positive and negative effects on mental health. Some relevant positive effects were the establishment of social support, gaining expert information, and understanding others' health experiences. On the other hand, some of the negative effects mentioned were depression, anxiety, poor sleep, loneliness, and cyberbullying. In a scoping review by Koh et al. (2024), the authors reported that most studies found negative aspects of social media use on the mental health and well-being of adults. Excessive and passive social media use was found to increase the risk of depression, anxiety, and loneliness. However, when social media use was positive and purposeful, it would bring benefits to one's well-being, such as enjoyment and social support. Therefore, being mindful when using social media is necessary to avoid the negative impact associated with its use, as reported by some participants in this study.

6.2.2 Causal Explanations

Two causal explanations are formed to explain the underlying mechanisms of the participants' self-regulation behaviour. These causal explanations are developed through retroductive reasoning, drawing on the relationships among the themes in this study, as

described in Chapter 4. As mentioned earlier, the causal explanations are to be interpreted together rather than separately. Through these explanations, it shows that the participants' well-being experiences in bipolar disorder are dependent upon the individual significance of the factors within the biopsychosocial-spiritual domains, which motivated them to actively engage in seeking relevant resources to manage their life circumstances.

6.2.2.1 *Causal explanation 1: An individual's perception and responses to illness and well-being experiences are shaped by culturally influenced values placed on the biopsychosocial-spiritual life domains*

This causal explanation demonstrates that the participants' behavioural responses to illness and well-being in bipolar disorder are influenced by their values placed on certain factors from the biopsychosocial-spiritual domains. These values serve as a guide to their subsequent and future behaviour, aimed at optimising their well-being (Sheldon & Elliot, 1999). For example, some participants who value relationships would engage in activities that allow them to spend time with others. What individuals deem important can also be influenced by their context, making the socio-ecological aspect relevant, as described in the subsection below.

6.2.2.2 *Causal explanation 2: Individuals are dynamic and resourceful agents actively approaching life circumstances in many ways that are beneficial to them*

This causal explanation suggests that the participants are driven and adaptive in addressing life's challenges. These characteristics enable them to actively identify resources available that they can use to manage themselves or their situations. Again, the types of resources are dependent on their contextual environment, as perceived from a socio-ecological perspective in this study. Being adaptive while dealing with unpleasant situations is one aspect

of resilience (Kent et al., 2014), which is essential for withstanding stress and navigating stressors positively. The resilience aspect of self-regulation is described in Section 6.2 below.

6.2.3 Socio-Ecology

In this study, the individuals' self-regulation in relation to bipolar disorder can be understood as shaped by the factors within their socio-environment that they perceive to affect their lived experiences, rather than as an isolated individual capacity. Culture emerged as a cross-cutting socio-ecological influence, operating across multiple levels and shaping participants' interpretations and responses to their illness, treatment, and well-being. Each level of socio-ecology is described separately below, although the occurrence of events is complex and influenced by interrelated socio-ecological factors (Slimmen et al., 2024).

6.2.3.1 *Microsystem*

The microsystem is influenced by individual factors, including biological and cognitive elements, as well as proximal processes (Leprich, 2021). Proximal processes refer to the constant interactions between the individual and their surroundings (Strauss, 2021). The bi-directional interactions between the individual and their surroundings are essential determinants of one's mental health (Ahmed & Saha, 2021), as observed in the participants' self-regulation behaviour resulting from these interactions, aimed at maintaining their well-being.

The biological aspect of bipolar disorder has long been established due to the early scientific discovery of the neurophysiological disturbances associated with mood disorders (Sadock et al., 2015). One example of the biological aspect reported by several participants in this study was the use of medication. They reported the benefits of medications to help stabilise their mood, despite experiencing some side effects. Their use of medication could have resulted from perceived benefit for symptom control, and at the same time, it could also have been

influenced by their relatives' responses or by their interactions with psychiatrists during treatment for bipolar disorder. The efficacy of medication to manage bipolar disorder can be explained by scientific studies that show bipolar disorder involves the "alterations of neuropeptides and monoamines in BD (bipolar disorder) brains", such as noradrenaline, serotonin, cyclic adenosine monophosphate (AMP), G-proteins, and phosphatidylinositol (Vawter et al., 2000). Each illness relapse further impacts neuronal circuits, which leads to permanent structural changes, leading to a worsening prognosis of the illness condition over time. As such, medications such as mood stabilisers are said to be protective against further neuronal damage (Berk, 2009).

Other factors that contributed to the medication's benefit were the participants' insight and conviction about their role and the efficacy of the treatment in helping them. This form of belief helps improve medication adherence and future help-seeking behaviour (Semple & Smyth, 2019), as observed in the participants' efforts to engage with their mental health professionals during treatment, where they actively participated in their treatment process. However, the role of biology does not provide a comprehensive explanation of bipolar disorder, as an aggressive pharmacological approach has not been found to improve prognosis in many individuals affected with bipolar disorder (Gitlin et al., 1995).

An individualised approach to managing life's issues is essential for promoting one's well-being, which is determined by each person's unique socio-environmental context. Therefore, as observed in this study, the participants adopted various strategies to help them deal with life challenges while living with bipolar disorder. Some of those strategies involved utilising certain cognitive approaches to cope with complex or challenging situations, such as attentional engagement and cognitive reframing. These cognitive strategies were essential to allowing them to generate the adaptive behaviour necessary to deal effectively with unpleasant circumstances. Similarly important is the use of non-cognitive strategies to manage bipolar

disorder. Murray et al. (2011) discovered several ways that individuals with bipolar disorder used to maintain wellness through their research. These methods were also reported by several participants in this study, including rest, sleep, diet, exercise, symptom monitoring, social connection, and educating others about bipolar disorder. Some participants reported that their involvement in these activities helped them feel better and improve their overall quality of life. Though the strategies may appear ordinary, they are nonetheless helpful and practical ways to regulate health and well-being when living with bipolar disorder.

Where interpersonal relationships were involved, the participants reported that having positive social relationships enabled family and friends to monitor their mental health and provided mutual encouragement as a form of support. Those who reported having good and pleasant relationships with their family and friends felt supported in their well-being. From a Malaysian cultural perspective, this finding can be understood within a collectivist social orientation. Interpersonal relationships are foundational to one's daily functioning, including health-related practices. In Malaysia, individuals remain within their family networks well into adulthood, and family members actively monitor health, offer advice, and provide support (Chan, 2019). This observation suggests that well-being is understood as a shared responsibility within a family or community unit rather than an individual matter. Such involvement is culturally normative and is perceived as an expression of care rather than an intrusion. In addition, Malaysian culture often emphasises interdependence, mutual obligation, and relational harmony, which can strengthen the support for those with mental health needs (Mohamad et al., 2014). However, not all relationships involved were positive, as several participants in this study had experienced distress due to their unpleasant engagement with their families, where stigma about their mental health experiences was raised and questioned. In those negative interactions, they learned certain ways to manage and mitigate their distress, which were relevant to developing their resilience. Building relationships helps enhance

bonding with their close ones. The quality of relationships with others is another essential component which determines the self-regulation of individuals with bipolar disorder. In a qualitative study by Owen et al. (2017), which investigates the relationship between social interactions and personal functioning in bipolar disorder, it is found that good social support, along with empathy from another person, helps them deal with bipolar disorder more effectively.

The relationship between the participants and their mental health professionals had a significant impact on how they perceived their level of support. In Malaysia and other Asian countries, decision-making in medicine is often influenced by paternalistic consultation styles and the tendency to defer decisions to clinicians' expertise. This ‘one-way’ style has been documented in Southeast Asian clinical contexts (Claramita et al., 2013) and in this study. This helps explain why some participants in this study described withholding when they perceived limited interest from their clinician. In contrast, increased engagement in treatment decisions (e.g., medication adherence, selective disclosure) was observed with better therapeutic relationships. As noted in this research, when the participants felt that their mental health professionals were not supportive of them, they either kept their engagement to a minimum or intended to seek another professional for support. This observation revealed that service users desired to be heard and cooperate with healthcare providers in their treatment (Laitila et al., 2018). Strauss and Johnson (2006) in their studies discovered that a strong treatment alliance predicted better clinical outcomes for bipolar disorder. A more understanding and empathetic professional would likely put the service user at greater ease and encourage them to take responsibility for being involved in ways that ensure their mental health and well-being, not just in terms of medication intake, but also in beneficial lifestyle activities (Berk et al., 2008).

A person’s surroundings would also impact their efforts to manage their well-being. From the participants’ immediate surroundings, such as their home environment, their self-

regulation would be affected by the quality of their relationship with their family. These instances demonstrated that a person's environment can be a significant factor in their self-regulation behaviour to maintain well-being. In a research on the home environment among children with bipolar disorder, the family characteristics of families with children with bipolar disorder were found to be significantly different from those of standard controls in that the former group showed lower levels of family cohesion, active-recreational orientation, intellectual-cultural orientation, expressiveness, and higher levels of conflict (Belardinelli et al., 2008). Through a literature review, Bagais and Pati (2023) found a link between the home environment and self-regulation in children. They suggested that any adverse factors in the home environment could potentially impact a child's self-regulation. The factors could come from the physical, quality or organisational aspects of the environment. This observation highlighted the significance of one's surrounding environment in influencing self-regulation behaviour.

6.2.3.2 *Meso-Exosystem*

As mentioned above, the interactions among socio-ecological factors are complex, as they influence one another in various ways, affecting mental health outcomes (Slimmen et al., 2024). Due to the complex nature of the relationships among socio-ecological factors, it can be challenging to separate them into distinct categories (Slimmen et al., 2024). Hence, the mesosystem and exosystem are combined in this context. The mesosystem and exosystem are closely related in that both consist of the interactions between and among the microsystem factors but differ in one aspect: In the mesosystem, all microsystems directly influence the individual, whereas in the exosystem, at least one of the microsystems exerts an indirect influence on the individual (Jackman et al., 2022; Leprich, 2021). Interpersonal relationships are said to be "the most notable meso-exosystem factor" (Leprich, 2021, p. 3) seen in bipolar disorder in which the factor can be observed to have a direct and indirect influence on the

individual across various settings, for example, local neighbourhoods and communities, school, work, social media, and church (Leprich et al., 2021). One example of an exosystem aspect in this study is the indirect interpersonal relationship that had a direct influence on the individual's well-being and self-regulation. For example, a participant reported that her husband's friends were influencing him to have a negative perception of her, which resulted in a strained relationship between them.

From the aspect of the available facilities in their surroundings, several participants highlighted how their environment had either positively or negatively affected their self-regulation. These indirect functional processes of their surrounding facilities had a direct impact on the participants' self-regulation. For example, having sports or exercise facilities not only helped them engage in physical exercise but also allowed them to interact with others during those activities. On the other hand, difficulty accessing public transportation had led some participants to abandon activities they previously used to maintain their well-being. In another instance, some participants reported that the treatment environment also influenced their well-being, particularly in terms of how the treatment setting was structured. For example, one participant highlighted how a crowded clinic room with several doctors and patients had negatively affected their treatment experience. The relevance of the treatment setting was highlighted in a systematic review by Dijkstra et al. (2006), who reported that the physical environment of healthcare settings plays a role in affecting patients' well-being (Dijkstra et al., 2006). Public healthcare facilities in Malaysia often operate under high patient volumes, which can result in suboptimal service quality, for example, reduced consultation time or privacy (Ganasegeran et al., 2015). Within a cultural context that values relational sensitivity and respectful communication, such environments may negatively impact disclosure and weaken therapeutic engagement in the treatment setting. These findings highlight how culturally situated healthcare structures may influence one's well-being and, in turn, regulatory practices.

Social or mass media are increasingly being used and have become an important source of information and communication for individuals with mental health issues (Naslund et al., 2020), including bipolar disorder (Alamrouni et al., 2024). The impact of their use on bipolar disorder has been researched in several studies. In one study by Alamrouni et al. (2024), the respondents perceived that social media generally had more negative implications for them in that social media did not help improve their management of bipolar disorder, and the increased time spent on social media caused bipolar disorder disturbances. On the other hand, Naslund et al. (2016) stated the benefits of social media in terms of allowing peer connections among individuals with severe mental illness to offer support, challenge stigma, gain insight, and cope better with daily life challenges. In this study, participants reported using social media for various purposes, including recreation, knowledge acquisition, and social interaction. However, when used excessively, they reported experiencing negative impacts on their well-being, such as stress and difficulty sleeping. In addition, when used during an active episode of illness, they risk unregulated use and exposure to unnecessary and excessive sharing of personal details. Therefore, social or mass media use in bipolar disorder can be likened to a "double-edged sword" in which its use is "both a culprit that can trigger or exacerbate symptoms as well as a support mechanism for recovery" (Matthews et al., 2017, p. 288).

The cultural norms surrounding self-expression and individual reputation have shaped how social media is utilised within the Malaysian context. Social media use in Malaysia is influenced by concerns about social image and others' evaluation, which may heighten emotional reactivity and stress, especially for individuals who are psychologically vulnerable (Maliki et al., 2024). This may account for the participants' reports of distress and the need to regulate social media use during periods of instability.

6.2.3.3 *Macrosystem*

Several important factors in the macrosystem relevant to this study include bipolar disorder treatment and illness-related stigma (Leprich, 2021). In addition, the religious and spiritual aspects influencing bipolar disorder could also be considered from a cultural perspective and discussed here. One's culture determines the strategies adopted in healthcare, including the range and approaches of treatment interventions (Bhugra & Flick, 2005), as well as the issues related to illness perception, such as stigma (Hawke et al., 2013).

The treatment approach adopted by mental health professionals in the treatment of bipolar disorder is dependent on the cultural context of their healthcare delivery (Oedegaard et al., 2016). In a study by Post et al. (2011) comparing the management of bipolar disorder across three countries — namely, the United States, the Netherlands, and Germany — it was noted that they exhibited distinct aspects in terms of clinical characteristics and treatment responses. The onset was found to be earlier, and its features were more severe for the United States than for its European counterparts. The preferred mood stabilisers and other agents used for treatment differed between the two continents, and for reasons unknown, the successful treatment rate seen in the United States was lower. Given that the study involved three different countries on two separate continents, one obvious thing is the diversity of nationalities and cultures involved, i.e., cultural variation, which potentially played a role in these observations. The role of cultural variation was also observed in this study. The participants in this study highlighted that the treatment experiences they received differed among mental health professionals. Although there could be many explanations for their experiences, one of them could be the fact that each professional has culturally influenced individual views and perspectives on treatment styles and approaches (Bernal et al., 2009), which subsequently affects the working alliance between the client and the professional (Huang & Zane, 2016). This was possible in this study, considering the multiethnic and multicultural practices and

beliefs in Malaysia, reflecting the cross-cultural influences on bipolar disorder management (Sanches & Jorge, 2004).

The stigma associated with bipolar disorder was another experience shared by the participants in this study. The aspect of stigma is described in this section in view that a person's experiences of bipolar disorder could be influenced by their culture (Vazquez et al., 2011). The stigma experienced was either a form of self-stigma or caused by people around them, particularly their family (i.e., social stigma). Regardless, the stigma had influenced their self-regulation process to maintain their well-being.

Stigma surrounding mental health challenges, including bipolar disorder, in Malaysia has been reported in both public and family contexts, where it is associated with weakness, danger, or spiritual influence. The stigma may be reinforced by cultural emphasis on social conformity and self or family reputation (Shoesmith et al., 2018). In this study, the participants' experiences of stigma can be understood as occurring within a broader cultural environment that shapes attitudes towards mental health issues and help-seeking behaviours. This, in turn, influenced participants' self-regulation strategies, including selective disclosure, symptom concealment, and reliance on alternative sources of support.

Finally, another aspect closely related to culture and relevant to the participants of this study was religion and spirituality. Religion and spirituality, which occupy a prominent place in Malaysian public and private life, may influence how bipolar disorder is interpreted and managed. Religion and spirituality were used to help them with unpleasant life circumstances while living with bipolar disorder. Studies have shown that religious and spiritual practices are often integrated into coping and meaning-making processes for mental health challenges in Malaysia (Shoesmith et al., 2018). Several participants in this study perceived spiritual or religious practices as beneficial to maintaining their well-being, especially during difficult life

circumstances. Religion and spirituality are psychosocial variables that are reported as an adaptive form of coping in bipolar disorder (De Fazio et al., 2015).For participants in this study, spiritual and religious engagement provided hope, moral guidance, and emotional grounding during periods of distress. However, religious or spiritual practices have also been reported as a clinical manifestation of bipolar disorder, specifically in the mixed states (Cruz et al., 2010). This highlights the importance of culturally sensitive interpretation of religious and spiritual expressions in bipolar disorder.

6.3 The Nature of Resilience in Self-Regulation in Bipolar Disorder

The findings in this study revealed that human resilience can be influenced by continuous interactions between the person and their environment, which involves four critical aspects: biological (Pascucci et al., 2007), psychological (Ahern et al., 2008), socio-environmental (Norris et al., 2008), and spiritual (Tuck & Anderson, 2014). Therefore, resilience factors are related to the biological, psychological, social (Bennett et al., 2018), and spiritual domains (Manning et al., 2019) that lie within the context of socio-ecology, as described in this study. These domains are usually operated within the collectivist Malaysian family and community structures, where cultural influence plays an important role. Participants' resilience was embedded in their relationships with others, in which maintaining relationship harmony takes precedence over individual emotional expression.

Biological factors of resilience include genetic, hormonal, and cellular aspects (Feder et al., 2011). Many discoveries have been made that explain the role of biological factors in influencing one's resilience to adversity. For example, the medial prefrontal cortex exerts control over stress adaptation. Inhibiting the neuronal activity in that region helps alleviate depression symptoms, while activating it produces depression features (Liu et al., 2018). On the other hand, severe psychosocial stressors can affect brain function, which substantially

impairs one's resilience ability (McEwen, 2016). These stressors have been postulated to play a role in causing the occurrences of mood disturbances in bipolar disorder. If they happen frequently, it might lead to progressively more autonomous recurrences of mood episodes, i.e., kindling (Bender & Alloy, 2011). This observation demonstrated how life-related stress affects one's brain function. With this insight, the psychosocial (and spiritual) treatment approach can be developed to help individuals with bipolar disorder monitor and manage these stressors (Bender & Alloy, 2011), thus building their resilience in dealing with them over time. Similarly, spirituality has been found to anchor mental wellness, thus contributing to one's resilience (Mizuno et al., 2018). In a cross-sectional study by Mitchell and Romans (2003) to investigate religious and spiritual aspects in individuals with bipolar disorder and their implications in treatment and management, many of the respondents used religion and spirituality to cope with bipolar disorder. A significant number of them believed that religion and spirituality influenced their management, for example, in mood monitoring and recognising early warning signs. However, many also reported a significant paradigm conflict between the respondents and the clinical staff regarding their bipolar disorder experiences, as well as the management advice given by the medical and spiritual advisors. Therefore, the latter findings imply the relevance of being comprehensive in addressing all biopsychosocial-spiritual domains when it comes to managing bipolar disorder. This approach may help build one's overall capacity in handling life-related stress, i.e., resilience, while living with bipolar disorder.

In this study, family and spiritual frameworks were frequently involved in the participants' interpretation of their mental health challenges. Several participants described how they negotiate psychiatric and religious understandings of their sufferings, with spiritual practices providing comfort and meaning, but with tension with medical advice, occasionally. Interactions among family, healthcare professionals, and religious communities influenced

participants' engagement with treatment and self-regulation. This observation indicates that resilience emerged from mesosystem interactions rather than from individual processes alone.

The study of resilience is challenging due to the heterogeneity and ambiguity of the concept (Davydov et al., 2010). Defining the concept of human resilience is a challenging task, given its multidimensional nature. Due to the complexity of the subject, the goal of any resilience study is not to agree on any particular definition of resilience but to clearly state the context in which it is defined, backed by solid empirical support and using a sound methodological approach (Southwick et al., 2014). In this study, resilience is perceived to be closely related to self-regulation and socio-ecology, where the person and the surroundings could potentially influence their behaviour and living experiences. The findings in this study suggest that an individual's self-regulation depends on their underlying dynamic and resourceful nature, which enables them to improve their life experiences and contribute to their resilience capacity. Being dynamic in their approach to life's issues allowed them to deal with the issues prudently and resourcefully in identifying and using multiple means to their benefit. In that respect, self-regulation is seen as the participants' behavioural activities "with regard to bringing the self into line with preferred (thus, regular) standards" (Vohs & Baumeister, 2004, p. 2) by engaging or utilising resources available to them. The self-regulatory behaviour observed in this study was strongly influenced by participants' cultural values. For example, some participants managed emotional distress through restraint and internalisation, reflecting general expectations to preserve social harmony. Therefore, adaptive strategies used in self-regulation were shaped by cultural meanings attached to their mental health challenges and struggles. This form of self-regulation, in a way, corresponded to being resilient in that the behaviour was adapted to their surroundings and the resources available to them (Stainton et al., 2019), which "may serve to protect and/or promote mental health, accelerate recovery and/or mitigate the negative effects of mental 'pathogens' — i.e. stressors" (Davydov et al.,

2010, p. 482). Although the factors involved in their self-regulation could be categorised in one of the socio-ecological systems, each factor was a complex interplay between and among the systems (Slimmen et al., 2024). In other words, the interactions do not confine themselves to the specific system. As such, the individuals were also similarly affected, directly or indirectly, by the elements of the outer systems, namely meso-, exo-, and macrosystems, due to the "interdependence and mutual interaction among persons/organisms and settings" across the socio-ecological systems (McLaren & Hawe, 2005, p. 6). To avoid confusion, the factors in each system are considered as standalone in this study, as mentioned above.

Generally, researchers have suggested that further study should focus on understanding how social and environmental factors influence mental health (Lund et al., 2018). However, despite their importance to mental health (Reupert, 2017), much mental health research today adopts the individualist paradigm (Panter-Brick & Eggerman, 2012) rather than the collectivist paradigm. The former approach to the topic examines the personal dimension as a factor explaining one's experience (Hofstede, 1980). In contrast, the latter asserts that the explanation of one's experience lies in the context of one's community, i.e., socio-ecology (Sinha & Verma, 1987). Several researchers have argued against an individualist paradigm of perceiving one's mental health experience. According to Ungar (2012), the context or environment has a greater impact on one's experience than individual capacity alone, due to the significant role of environmental influences in nurturing mental well-being and thereby enhancing resilience. As these factors are contextually influenced (Ungar, 2012; Card & McGlynn, 2020), it is necessary to understand them from the perspective of the local population with mental health problems.

6.4 Biopsychosocial-Spiritual Aspect of Self-Regulation in Bipolar Disorder

The management of bipolar disorder is often challenging for individuals living with the condition (Muralidharan et al., 2021). The importance of illness self-regulation is reflected in

the increasing number of self-regulation-related programmes that have been incorporated into treatment approaches for mental health issues (van Genugten et al., 2017; Cook et al., 2009). Dixon et al. (2001) emphasised the importance of considering the holistic aspects of a person during the treatment process. They found that the psychiatric symptoms played a minimal role compared to psychosocial functioning, where life quality and satisfaction were concerned. One possible explanation is that interdependency exists among the biological, psychosocial, and spiritual factors of the disorder (Leprich, 2021), as observed in this study. Additionally, the biological and psychosocial-spiritual factors reflect different aspects of the illness description. Therefore, a biological event may have psychosocial and spiritual consequences, and vice versa. For example, life stressors can trigger the genotypic expression of bipolar disorder (Alloy et al., 2005), especially in vulnerable individuals (Lex et al., 2017). At the same time, significant life events can affect the condition of bipolar disorder (Miklowitz & Johnson, 2009) or may even influence the outward expression of the disorder (Leprich, 2021). Therefore, rather than focussing on the psychiatric symptoms alone, a comprehensive biopsychosocial-spiritual need of the person should be equally emphasised, if not more. The comprehensive and holistic approach to managing bipolar disorder would allow one to build the capacity and courage to deal with difficult life circumstances whenever they happen (Chan et al., 2023).

The biopsychosocial model (Engel, 1977) has gained prominence in various health-related fields due to its ability to provide a comprehensive understanding of a person's health experience (Campbell & Rohrbaugh, 2013), thereby allowing for a holistic approach to their healthcare (Sulmasy, 2002). Sulmasy (2002) proposed expanding the biopsychosocial model to include the spiritual component. He argued that holistic care should address "the totality of the patient's relational existence—physical (biological), psychological, social, and spiritual" (p. 24). Given the relevance of spirituality and religion to mental health (Rosmarin et al., 2021), neglecting these components may potentially lead to a partial understanding of the person

(Sulmasy, 2002), especially when religion or spirituality is a significant aspect of the person's life. Generally, authors consider the spiritual element to be part of the social domain in the biopsychosocial model (Campbell & Rohrbaugh, 2013; Cairns, 2012). The spiritual and religious components are increasingly recognised as integral to the biopsychosocial model (Saad et al., 2017). While this thesis follows the assumption of Campbell & Rohrbaugh (2013) and Cairns (2012), the spiritual element will still be stated alongside the biopsychosocial term whenever it is highlighted, reflecting the findings of this study.

The biopsychosocial-spiritual domains have been one of the mental health models that help explain the factors affecting psychological well-being (Sadock et al., 2015; Campbell & Rohrbaugh, 2013) in the global population (Babalola et al., 2017). Experts agree on the usefulness and importance of using the biopsychosocial-spiritual approach in dealing with mental illness (Porter, 2020), such as bipolar disorder (Welton & Roman, 2018), due to its tendency to observe the determinants of mental health comprehensively and holistically, with none of any domains having a greater influence over others (Deacon, 2013). Any tendency to manage mental health issues from a myopic viewpoint by focussing on only one domain of the biopsychosocial-spiritual dimension over the others would negatively impact one's well-being due to the complexity of the illness process. Having a broader perspective of illness experience from the biopsychosocial-spiritual dimension allows the responsibility of healthcare management to stretch from mental health professionals to other professionals (Babalola et al., 2017) and even to the affected individuals themselves, as seen in this study on how they managed their experiences related to their living with bipolar disorder.

6.5 Research Strengths and Limitations

This is a qualitative study conducted as part of my postgraduate doctoral research. As such, my background has influenced its philosophical paradigm and methodological processes.

To improve research rigour in this study, all aspects of the research were reported transparently and comprehensively. A personal research diary was kept and maintained to add personal observations in the research context (Vaismoradi et al., 2013) and other related insights that helped me to be reflective and, at the same time, review the data from different perspectives (DeSantis & Ugarriza, 2000) that could contribute to producing quality research.

Efforts were made to fulfill the criteria that evaluate the quality of qualitative research, including applicability, consistency, credibility, and trustworthiness (Hammarberg et al., 2016; Leininger, 1994). This research did not aim to achieve generalisation of findings, as understood in quantitative research, but to transfer the findings of this study to another context where they can be similarly applied (Chenail, 2010). In other words, due to the small sample size in qualitative research, including this study, the research findings cannot be generalised to other settings as in quantitative research. However, they can only contribute to emerging theory, in which the knowledge can be extrapolated to related scenarios identified in the larger population (Chenail, 2010). Therefore, the findings of this study are likely applicable to individuals experiencing bipolar disorder in Malaysia, given the context in which the study was conducted and the extent of inclusivity of the participants' general characteristics. However, one counterfactor to this claim is that no participant representative was from the age group 60 and above, although age and other socio-demographics were not a deciding factor during participant recruitment. Even so, it is still useful to know the experiences of individuals above the age of 60 to compare with those of their younger counterparts.

To ensure the consistency and dependability of the results, the data obtained and study findings were shared and discussed with my research supervisors and were refined iteratively throughout the process. Additionally, the psychiatrist involved in participant recruitment for the qualitative study was also asked to verify the accuracy of the interview transcriptions, as mentioned in Chapter 4. In terms of study credibility, several practices were employed in the

research, including reflexivity and careful data description and interpretation, supported by verbatim quotations. Finally, the trustworthiness aspect was achieved through the explicit and robust description of the research process (Hammarberg et al., 2016).

Several methodological limitations of this study warrant discussion. First, the interviews were conducted in multiple languages and subsequently translated into English for analysis. This practice may have introduced subtle shifts in meaning or emphasis despite careful attention to semantic or interpretive accuracy. Although efforts were made to preserve participants' intended meanings through iterative checking and contextual interpretation, translation nonetheless involves interpretive decisions that may influence how experiences are represented and analysed (Temple & Young, 2004). To minimise this risk, the interview recordings and transcripts were shared with another psychiatrist to confirm the accuracy of the interpretation.

Secondly, my dual role as both a psychiatrist and a researcher presents a potential source of bias. Although I do not work in the hospital where the interviews took place, the participants' responses may also have been influenced, particularly in how they described their overall experiences. They may have limited their disclosures due to perceived power differentials or concerns about clinical judgement, despite assurances that the research was independent of their clinical care. To limit this risk, reflexive practices, including maintaining a research diary and ongoing supervisory discussions, were employed. However, the possibility of researcher positionality effects cannot be fully excluded here (Berger, 2015).

Thirdly, the participant recruitment was limited to outpatients attending a hospital-based mental health service. This approach may have shaped the nature of the findings because individuals who engage with outpatient services may differ from those who engage with care through community-based or informal supports, for example, in terms of insight, help-seeking

behaviour, and access to resources. Consequently, the findings may not fully represent the experiences of individuals with bipolar disorder who are less connected to formal healthcare systems. Fourthly, the inclusion of pilot interview data in the final data analysis represents another potential limitation. Although the pilot interviews were conducted using the same interview and analytic approaches and yielded conceptually relevant data, their inclusion may have influenced theme development through early analytic direction.

Finally, the primary aim of this study was to explore the lived experiences of self-regulation among individuals with bipolar disorder, with particular attention to how participants understood and conducted self-regulatory practices in their everyday lives. While the findings demonstrate that self-regulation is shaped by broader socio-ecological conditions—including interpersonal relationships, service structures, cultural norms, and spiritual contexts—these influences were not analysed in depth as discrete analytical units. Instead, socio-ecological factors were treated as contextual conditions that informed participants' experiences rather than as primary objects of analysis. This analytical decision reflects the study's focus on subjective meaning-making and behavioural adaptation rather than a systematic examination of socio-ecological systems themselves. As such, the limited interrogation of socio-ecological processes constitutes a key limitation of the study.

Future research should therefore build on this study by examining how specific socio-ecological levels (e.g., family systems, healthcare environments, community services, and cultural institutions) impact self-regulation processes among individuals living with bipolar disorder. Taken together, these limitations suggest that findings should be interpreted with appropriate caution, while still recognising their contribution to understanding self-regulation in bipolar disorder within a Malaysian socio-ecological context.

To the best of my knowledge, this is the first study exploring self-regulation experiences from the perspective of socio-ecology among individuals with bipolar disorder and at the same

time interpreting the underlying causes for their experiences. This study used thematic analysis and adopted the 4Cs approach by Christodoulou (2024) to study the data. The 4Cs approach has been developed to align with the critical realist paradigm (Christodoulou, 2024). Although critical realism has gained prominence in research over the past few decades, the methodological guidance for conducting a study congruent with the paradigm has been lacking (Fletcher, 2017), let alone research that adopts critical realism and thematic analysis methodologies, as this study did. Therefore, only a few published articles on critical realism-congruent thematic analysis were relevant to this study: Wiltshire and Ronkainen (2021), Fryer (2022), and Christodolou (2024). The methodological approach adopted in this study can be considered a recent development in academia. As such, this study makes a valuable contribution to the academic world, not only in terms of the application of the research methodology but also in providing new insights into resilience-related self-regulation in bipolar disorder in Malaysia. This knowledge is essential for advancing research into improving individuals' capacity for self-regulation so that relevant mental health programmes that support this effort can be expanded to benefit the wider community.

6.6 Research Implications and Future Directions

This research allows an increased understanding of self-regulation in bipolar disorder from the perspective of socio-ecology in a local Malaysian context. The findings in this study suggest that self-regulation in bipolar disorder is not an individual issue but multifaceted in that diverse socio-ecological aspects influence it, some more apparent than others. The practice of self-regulation, therefore, involves a degree of versatility or adaptability to achieve or maintain one's well-being. This observation among the participants in this study generally reflects their resilience, as suggested by their dynamic nature in utilising the available resources to maintain wellness. A relevant but unprecedented finding in this study is that the resources used are identified as related to the biological, psychological, social, or spiritual domains, which have

been established as one of the mental health models (Sulmasy, 2002). This finding enables the incorporation of the biopsychosocial-spiritual model when addressing self-regulation within one's socio-ecological context. Based on the current knowledge gained from this research, several efforts may help enhance mental health practices in Malaysia. The dissemination of the research findings would increase awareness of self-regulation in bipolar disorder and thus increase the focus on enhancing self-regulation among individuals with bipolar disorder. With increased attention on this topic area, a growing research interest in self-regulation is likely to reduce the knowledge gap, which will further help deliver practical, non-pharmacological approaches in mental health services, focussing on self-regulation.

This study advances self-regulation literature by emphasising why local context matters in this research area. In Malaysia, mental health service delivery structures (including community mental health services such as MENTARI) and socio-cultural norms (e.g., family involvement, relational expectations, and stigma-related concerns) can influence not only help-seeking behaviour and engagement with care, but also one's understanding and perception of their mental health-related experiences. In the context of the community mental health services, for example, MENTARI, they involve mental health care through community outreach and reintegration, and their services include consultation and rehabilitation-oriented programmes, indicating policy and service structures through which self-regulation support pathways could be operationalised (Ministry of Health Malaysia, 2026).

Community mental health services such as MENTARI are well-positioned to operationalise the study's findings through recovery-oriented programmes that incorporate family involvement, peer support, and culturally relevant psychoeducation that are in congruence with collectivist norms and the socio-ecological realities of service users' lives. From a policy perspective, this study provides empirical support for national mental health strategies that emphasise community empowerment, task-shifting, and psychosocial

interventions as core components of care (Ministry of Health Malaysia, 2020). Evidence also suggests that mental health systems which prioritise community-based, contextually grounded psychosocial care alongside biomedical treatment achieve more sustainable outcomes (Lund et al., 2018).

As for future studies, this research provides a foundation of knowledge in the topic area of self-regulation in bipolar disorder among Malaysians. More studies of a similar kind would allow a deeper understanding of the nature of self-regulation behaviour in bipolar disorder, thus enabling the development of self-regulation intervention strategies that benefit the local population. The implementation of the strategies must be aligned with the contextual aspect of the population for them to be sustainable. One example would be conducting research in a broader population, such as healthcare professionals and caregivers, to gain a more comprehensive understanding of this topic.

Several challenges to mental health development in Malaysia have been noted, and the Malaysian Ministry of Health has planned efforts to promote mental health and the well-being of its population. Some of the challenges were related to stigma, mental health resources (e.g., lack of trained professionals), and limited intersectoral collaboration (Ministry of Health Malaysia, 2020). Given these challenges to mental health in Malaysia, the government has initiated efforts to address these issues through various settings, including educational institutions, community centres, and health centres. One of the objectives of the National Strategic Plan for mental health development highlights a public approach, where relevant task-shifting to empower the community is emphasised. This community effort is seen in the definition of mental health used by the Malaysian Ministry of Health (1997): “the capacity of the individual, the group and environment to interact with one another to promote subjective well-being and optimal functioning, and the use of cognitive, affective and relational abilities, towards the achievement of individual and collective goals consistent with justice” (Chong et

al., 2013, p. 2-3). The mental health definition is somewhat different from the one used by the World Health Organisation (WHO): “a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community” (World Health Organisation, 2022). The adoption of the former mental health definition by the Ministry of Health Malaysia shows the contextual relevance of Malaysia as a country that thrives on multiculturalism, hence the collective approach to strengthening the population's mental health (Chong et al., 2013). This observation highlights the relevance of socio-ecological aspects of mental health issues. As such, it is necessary to engage with the relevant mental health stakeholders across socio-ecological levels to improve self-regulation among service users with bipolar disorder. Stakeholders’ perspectives are essential to ensure that all aspects are considered and that successful outcomes are achieved through long-lasting strategies to address challenging issues, such as mental health problems (Carras et al., 2020).

Malaysia, as an upper-middle-income country (Wan et al., 2021), along with other low and middle-income countries, have much work to do in global mental health due to the barriers to mental health development progress in those countries (Saraceno et al., 2007). While the focus on calling for “decisionmakers to do everything in their power to organise care for those with mental disorders” and to “increase the availability of care, and … to enable provision of more or better care, such as development of human resources or changes to mental health policy” (Saraceno et al., 2007, p. 1164-1165) is commendable, real work should focus on enhancing self-regulation among the service users. Through the enhancement of self-regulation skills, service users can evaluate their well-being and take charge of maintaining it, which is more sustainable in the long run for supporting mental health (Mitsea et al., 2023) compared to the medical paternalism approach (Tan, 2002). The research and practical application approach that enhances self-regulation, which utilises the dynamic nature of the individuals to improve the living experience with bipolar disorder, is a step forward toward realising the

National Strategic Plan for mental health development in empowering those with mental health issues.

6.7 Reflections

This research is my first qualitative study. Given my background in medicine, which emphasises observable clinical evidence, all my previous research employed quantitative approaches. My decision to adopt the qualitative approach in this study was due to my changed perception about the motivation behind one's behaviour, as discussed in Chapter 1. Nonetheless, this research posed a challenge for me in that I had to learn, accept, adopt, and apply qualitative research principles and methodologies that were unfamiliar to me. However, this learning process has been beneficial, yielding valuable knowledge and insight.

I acknowledge that my position as a psychiatrist has influenced how I looked at and process the research data, for example, having been exposed to the operational paradigm in psychiatry throughout my career caused me to sometimes revert to thinking that issues seen in individuals with bipolar disorder are illness-related rather than seeing them as unique individuals with their unique set of circumstances which might not necessarily be related to the illness. Hence, I needed to regularly remind myself of this aspect during research and clinical consultation. Therefore, this research has changed the way I see the behaviour of individuals with bipolar disorder, particularly when involving their efforts to manage their lives in general. Using this perspective has allowed better open communication with them as they begin to feel understood that they are not merely confined to the bipolar disorder diagnosis but are being influenced by biopsychosocial-spiritual factors in their socio-ecological context, whichever is relevant to them. This, coupled with the fact that they are dynamic and resourceful individuals, has enabled me to work with them by brainstorming potential influencing factors and exploring potential ways to handle life circumstances. My role, of course, is not to provide a solution to

their life-related issues, but to help them understand their capabilities and the resources available to them that they could consider using to build their resilience.

The findings in this study showed that individuals with bipolar disorder were actively engaged in dealing with life circumstances, making use of available internal and/or external resources pertinent to ensuring their well-being. This insight would add value not only to my future clinical work but also to the service users, as their self-regulation behaviour would be more comprehensively understood and assessed from the local perspective.

CHAPTER 7- CONCLUSION

This thesis has produced an original research study that focusses on self-regulation in bipolar disorder, specifically among Malaysians. This research aimed to understand resilience-related self-regulation behaviour among individuals with bipolar disorder in the socio-ecological context of Malaysia. This thesis is a product of two distinct but related studies: a scoping review and a qualitative study. The scoping review was conducted using data collected from international peer-reviewed papers, while the qualitative study was conducted in a local hospital setting. The studies were based on four key concepts: bipolar disorder, self-regulation, resilience, and social ecology (Chapter 2). The concepts chosen were aligned with the research focus, which aimed to answer the research question (Chapter 1) (i.e., What are the experiences and their possible causal explanations for the individuals' self-regulation in relation to resilience while living with bipolar disorder in the socio-ecological context in Malaysia?), and also influenced by my educational and professional backgrounds, which have essentially shaped my perspective on the topic of interest in this study.

The philosophical paradigm guiding this research (scoping review and qualitative study) was critical realism (Chapters 1 and 4), which was in line with my understanding of the nature of self-regulation among individuals with bipolar disorder. The critical realist perspective emphasises that human behaviour can be explained on several levels: *empirical, actual, and real* (Bryman, 2012). A person's behaviour is not limited to either what is experienced (i.e., *the empirical*) or what is observed (i.e., *the actual*), but a combination of both and another component, *the real*, which is the underlying cause for *the empirical* and *the actual* (Fletcher, 2017). In the context of this study, the occurrences of self-regulation events (i.e., *the actual*) as perceived and understood by individuals (i.e., *the empirical*) could be explained by their causative underlying mechanisms (i.e., *the real*). Given that not much was known about

self-regulation in bipolar disorder in the context of socio-ecology, specifically in Malaysia, this study attempted to do so and began by conducting a scoping review (Chapter 3).

The scoping review's purpose was to determine the extent of existing research from around the world on resilience-related self-regulation behaviour in bipolar disorder from the perspective of socio-ecology. The results of the scoping review, based on the 24 included papers relevant for analysis, revealed that different terminologies related to self-regulation were used in those studies, reflecting how various behavioural strategies, seen as self-regulation (Schmeichel & Baumeister, 2004), were adopted by individuals with bipolar disorder. Self-regulation and its challenges in bipolar disorder were noted to occur across different socio-ecological systems, namely the microsystem, mesosystem, exosystem, and macrosystem. Although the frequency of factors related to self-regulation identified in the review increased from the highest (i.e., macrosystem) to the lowest socio-ecological systems (i.e., personal, microsystem), the challenges associated with self-regulation in bipolar disorder were observed across all these systems. In other words, more self-regulation behaviours were described in lower socio-ecological systems than in upper ones. This knowledge highlights that the focus of the current research is mainly on individuals and their surroundings rather than on higher socio-ecological levels related to one’s culture and society, leading to calls from researchers to embark on studies focussing on higher socio-ecological levels (Moonveld & McVeigh, 2025). However, this was not the focus of this study, as the focus was to explore and understand individual self-regulation experiences in bipolar disorder.

Although the self-regulation aspect can be approached from quantitative or qualitative perspectives (Cazan, 2012), this review revealed that most research into self-regulation in bipolar disorder was conducted qualitatively. A qualitative approach was also chosen for the empirical study in this thesis, as it aligned with the research paradigm and the study's objectives (Bryman, 2012). Given that previous studies had not explored the underlying causal

mechanisms of self-regulation behaviours, and no studies have been conducted to understand self-regulation behaviour in bipolar disorder among the Malaysian population, the empirical part of this research helped shed light on these aspects.

The qualitative study adopted the critical realist thematic analysis methodology to elicit the underlying causal explanations for the individuals' self-regulation behaviour in bipolar disorder (Chapter 4). The overall process of conducting this study, from its design to execution, including data analysis and interpretation, was influenced by the research paradigm, study concepts, and the local context of the study. The research paradigm facilitated the exploration of underlying causal mechanisms for the participants' self-regulation by reviewing their individual experiences. At the same time, the paradigm acknowledged that unobservable and hidden dynamics shaped their experiences, which in turn influenced the data interpretation, for example, social-oriented values and their impact on illness perception.

The data analysis methodology used in the empirical study was guided by the approach outlined by Christodoulou (2024). This methodology facilitated the generation of five themes (Chapter 5): (1) Well-being as a multidimensional experience shaped differential engagement across culturally influenced biopsychosocial-spiritual life domains, (2) Physical strategies shaped by interpersonal relationships within the surrounding environment, (3) Cognitive and emotional strategies used in response to stress, (4) Personal hopes, desires, and spiritual or religious influences on well-being, and (5) The mixed implications of social media for well-being.

The themes of this study were formed after all the categories had been analysed for their connections with one another. From the themes generated, it was noted that they were connected to the biological, psychological, social, or spiritual domains. These domains are highly relevant to the field of mental health (Sadock et al., 2015), where professionals often

use them to gain a comprehensive understanding and develop a plan for individuals with mental health issues (Campbell & Rohrbaugh, 2013). This observation suggested that although individual self-regulation experiences were unique and distinct, they could originate from any of the biopsychosocial-spiritual domains. From a socio-ecological perspective, individual experiences could originate from and be influenced, directly or indirectly, by the microsystem, mesosystem, exosystem, or macrosystem. The interactions among the factors in socio-ecology are complex, with each influencing the other (Slimmen et al., 2024). Hence, the clear separation of some factors into distinct socio-ecological levels can be impractical.

The themes were then analysed, which produced two causal explanations to answer this study's research question, as mentioned above. The two causal explanations generated were: (1) An individual's perception of and response to his/her illness and well-being experiences are shaped by culturally influenced values placed on the biopsychosocial-spiritual life domains, and (2) Individuals are dynamic and resourceful agents actively approaching life circumstances in many ways that are beneficial to them. Essentially, the individuals' self-regulation was driven by their dynamic nature in responding to life circumstances. Being dynamic in their approach to life issues allowed them to deal with those issues and be resourceful in identifying and using multiple means for the benefit of their well-being. This form of self-regulation, in a way, corresponded to being resilient, as the behaviour was adapted to their surroundings and the resources available to them for their well-being, which helped them overcome challenging situations (Stainton et al., 2019).

This research has contributed to new knowledge in this topic area and may potentially inform approaches to improve individuals' lives through effective intervention strategies that enhance their self-regulation practices (Chapter 6). This is necessary and important at this time, given that the Malaysian government, in its National Strategic Plan for mental health development (Ministry of Health Malaysia, 2020), has emphasised empowering the mental

health community. Although providing the mental health resources is important, the development of individual capacity building to manage life-related issues among individuals with mental health issues, generally, and bipolar disorder specifically, is equally, if not more, important. With the approach to involve all relevant stakeholders, focussing on self-regulation development, the aspiration of making individuals with bipolar disorder more resilient is very much achievable.

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(Note: References with superscripts [n] are the citations used in the scoping review of this study)

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APPENDICES

Appendix 1. Scoping Review Data Extraction Form

<table>
<tr><td>Study ID:</td><td>Date of data extraction:</td></tr>
<tr><td colspan="2">Title; Year of publication; Lead author:</td></tr>
<tr><td colspan="2">Country in which the study was conducted:</td></tr>
<tr><td colspan="2">Aim of the study:</td></tr>
<tr><td colspan="2">Study design:</td></tr>
<tr><td colspan="2">Study methods:</td></tr>
<tr><td colspan="2">Study participants' description:</td></tr>
<tr><td colspan="2">Study setting:</td></tr>
<tr><td colspan="2">Total number of participants:</td></tr>
<tr><td colspan="2">Socio-environmental contexts used to understand self-regulation:
<table>
<tr><td>Individual</td><td></td></tr>
<tr><td>Microsystem</td><td></td></tr>
<tr><td>Mesosystem</td><td></td></tr>
<tr><td>Exosystem</td><td></td></tr>
<tr><td>Macrosystem</td><td></td></tr>
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<tr><td colspan="2">Other related terms indicating self-regulation:</td></tr>
<tr><td colspan="2">Other results (if relevant):</td></tr>
<tr><td colspan="2">Challenges related to self-regulation (if any):</td></tr>
<tr><td colspan="2">Author's conclusion:</td></tr>
<tr><td colspan="2">Reviewer's comments (if any):</td></tr>
</table>

Appendix 1a. A Sample of Scoping Review Data Extraction

Study ID: 1	Date of data extraction: November 13, 2023
Title; Year of publication; Lead author: 'Listen, empower us and take action now!': reflexive-collaborative exploration of support needs in bipolar disorder when 'going up' and 'going down'; 2014; Billsborough, J.	
Country in which the study was conducted: UK	
Aim of the study: To investigate the support needs of individuals with bipolar disorder during periods of mania and depression and their prodromes.	
Study design: Qualitative research	
Study methods: Semi-structured interviews were conducted with bipolar disorder and the people who provided informal support to them. Reflexive collaborative approach was used to analyse the data in-depth to produce meaningful analytical categories and themes.	
Study participants' description: - The study population was recruited using convenience sampling through study information posted to the participants who had taken part in an earlier mental health study and bipolar support groups - Participants were individuals with bipolar disorder and their support person/carer - n = 27 (16 with bipolar disorder, 11 carers) - Male: 9 (7 with bipolar, 2 carers); Female: 18 (9 with bipolar disorder and 9 carers) - The age of individuals with bipolar disorder ranges from 18 to 64 and for the carers, the age ranges from 18 to 75+ - Patients' ethnicity (White, n = 11; Non-white, n = 2; Not stated, n = 3)	
Total number of participants: 27	
Socio-environmental contexts used to understand self-regulation:	

Individual	(SELF-AWARENESS/EVALUATION) - "If I feel like I'm enjoying [the party] a bit too much and I'm a bit too conversational, I feel like it's a warning sign for me. I have to go, because it it trips in...that can trigger an episode." (SELF-INITIATION) - "...forcing myself to arrange something to which I could look forward to." (SELF-ADMINISTRATION) - "If I'm feeling anxious, I take the benzodiazepine drug...I was going too high, I take the typical antipsychotic drug." (SELF-LEARNING) - "... because I find that once...if I go deep into an episode its very, very difficult to get out."
Microsystem	(SOCIAL (FAMILY/FRIENDS) SUPPORT) - "I think [what helped me] was being able to talk to somebody on their own, at a very, very, deeply personal level." - "...it was helpful to feel cared about and have someone to hold hope..." - "One supporter helped her daughter to stay away from friends who fuelled manic behaviour." (HEALTHCARE PROVIDERS' SUPPORT) - "...the cognitive analytical therapist...was incredible. I actually wrote her a letter after I got out, to say thanks, how much she'd helped me..."
Mesosystem	(INVOLVEMENT FROM FAMILY AND HEALTHCARE PROVIDERS) - "...the mental health team need to listen to the family, because they've been through this..."
Exosystem	None
Macrosystem	None

Other related terms indicating self-regulation:

Self-management, Coping, Self-empowerment

Other results (if relevant):

Three overarching themes related to the quality of support based on the thematic analysis of the research data:
a) being listened to and active engagement
b) empowerment
c) acting early

Challenges related to self-regulation (if any):

Individual	None
Microsystem	(OVERLY INVOLVED/CONCERNED CARERS) - "What I don't like is to be bombarded by people...being worried...then I feel guilty about them being worried." (LIMITED/INEFFECTIVE HEALTHCARE PROVIDERS' SUPPORT) - "However, support from health professionals was often not available quickly enough..." - "… I think they've been made worse by not being able to get the right sort of help at the right time."
Mesosystem	None
Exosystem	(LIMITED/SUBSTANDARD TREATMENT SERVICES) - "Participants generally felt there was…not enough on therapy...limited availability and long waiting lists...people rarely get this support..."
Macrosystem	None

Author's conclusion:

Support needs differ between periods of depression and mania. Supporters (family, friends, health professionals) play an important role in the well-being of individuals with bipolar disorder. Effective communication is essential.
They can help by being observant of early warning signs and responding early.

Reviewer's comments (if any):

Dialogues/experiences were not clearly differentiated between those of patients and of carers. The dialogues/experiences had to be read carefully and interpreted in the context of what was being said and by whom.

Appendix 2. Database Searches

First search

i) Bipolar disorder

(DE "Bipolar Disorder" OR DE "Bipolar I Disorder" OR DE "Bipolar II Disorder" OR DE "Cyclothymic Disorder" OR DE "Mania") OR TI (bipolar OR bi-polar OR Cyclothymic OR Cyclothymia OR Mania OR ((manic) N3 (depress*))) OR AB (bipolar OR bi-polar OR Cyclothymic OR Cyclothymia OR Mania OR ((manic) N3 (depress*)))

ii) Self-regulation

((MH "Self-Control") OR (MH "Emotional Regulation")) OR TI ((“Self regulation OR “Self management”, “Self coping OR “Self efficacy” OR Self care” OR “Self control” OR “Self help” OR “Self-regulation OR “Self-management”, “Self-coping OR “Self-efficacy” OR Self-care” OR “Self-control” OR “Self-help” OR “Cognitive regulation” OR “Emotional regulation” OR “Behavioural regulation” OR Cognitive-regulation, Emotional-regulation OR Behavioural-regulation OR self-regulation OR self-management OR selfregulation OR selfmanagement OR (Behavioural regulation (self OR personal OR individual OR himsel* OR hersel* OR themsel* OR behavi*) N3 (regulat* OR manag*)) OR ((coping OR cope) N3 (strat* OR styl* OR behav*)))) OR AB ((“Self regulation OR “Self management”, “Self coping OR “Self efficacy” OR Self care” OR “Self control” OR “Self help” OR “Self-regulation OR “Self-management”, “Self-coping OR “Self-efficacy” OR Self-care” OR “Self-control” OR “Self-help” OR “Cognitive regulation” OR “Emotional regulation” OR “Behavioural regulation” OR Cognitive-regulation, Emotional-regulation OR Behavioural-regulation OR self-regulation OR self-management OR selfregulation OR selfmanagement OR (Behavioural regulation (self OR personal OR individual OR himsel* OR hersel* OR themsel* OR behavi*) N3 (regulat* OR manag*)) OR ((coping OR cope) N3 (strat* OR styl* OR behav*))))

Date	Database	Number of hits
July 7, 2023	CINAHL	332
July 7, 2023	MEDLINE	689
July 7, 2023	PsycInfo	764
July 7, 2023	PubMed	35
July 7, 2023	Web of Science	1

Second search

i) Bipolar disorder

(DE "Bipolar Disorder" OR DE "Bipolar I Disorder" OR DE "Bipolar II Disorder" OR DE "Cyclothymic Disorder" OR DE "Mania") OR TI (bipolar OR bi-polar OR Cyclothymic OR Cyclothymia OR Mania OR ((manic) N3 (depress*))) OR AB (bipolar OR bi-polar OR Cyclothymic OR Cyclothymia OR Mania OR ((manic) N3 (depress*)))

ii) Self-regulation

“Self surveillance” OR “Self responsibility” OR “Self knowledge” OR “Self empowerment” OR “Self monitoring” OR “Help seeking” OR “Problem solving” OR “Role management”

OR “Emotional management” OR “Self awareness” OR “Self expertise” OR “Self assessment” OR “Self initiation” OR “Adaptive functioning” OR “Learned resourcefulness” OR “Self agency” OR “Self adjustment” OR Autonomy OR “Self determination” OR Independence OR “Self-surveillance” OR “Self-responsibility” OR “Self-knowledge” OR “Self-empowerment” OR “Self-monitoring” OR “Help-seeking” OR “Problem-solving” OR “Self-awareness” OR “Self-expertise” OR “Self-assessment” OR “Self-initiation” OR “Self-agency” OR “Self-adjustment” OR “Self-determination”

Date	Database	Number of hits
December 29, 2023	CINAHL	265
December 29, 2023	MEDLINE	734
December 29, 2023	PsycInfo	915
December 29, 2023	PubMed	46
December 29, 2023	Web of Science	8

Appendix 3. Categories of Self-Regulation Across Socio-Ecological Levels

Socio-ecological level (Individual)	Contexts	References
	Self-awareness/evaluation	Billsborough et al. (2014); Blixen et al. (2016); Demissie et al. (2021); Fernandez et al. (2014); Jupille et al. (2023); Lam & Wong (1997); Murray et al. (2011); Pollack (1996a,b); Suto et al. (2010); Van den Heuvel et al. (2015); Kwok (2014)
	Self-initiation	Billsborough et al. (2014); Demissie et al. (2021); Depp et al. (2009); Fernandez et al. (2014); Mandla et al. (2017); Murray et al. (2011); Nicholas et al. (2017a,b); Pollack (1996a,b); Todd et al. (2012); Van den Heuvel et al. (2015)
	Self-administration	Billsborough et al. (2014)
	Self-learning	Billsborough et al. (2014); Blixen et al. (2016); Demissie et al. (2021); Granek et al. (2018); Mandla et al. (2017); Murray et al. (2011); Nicholas et al. (2017a,b); Pollack (1996a,b); Todd et al. (2012); Tse et al. (2014); Van den Heuval et al. (2015); Viethaler & Elliott (2022); Kwok (2014); Miller (2008)
	Self-care	Mianji & Kirmayer (2023); Granek et al. (2018); Suto et al. (2010); Mandla et al. (2017); Nicholas et al. (2017a,b); Blixen et al. (2016); Van den Heuvel et al. (2015); Kwok (2014); Tse et al. (2014); Miller (2008); Todd et al. (2012); Murray et al. (2011); Lam & Wong (1997); Pollack (1996a); Depp et al. (2009); Fernandez et al. (2014)
	Self-reflection	Blixen et al. (2016); Depp et al. (2009); Jupille et al. (2023); Murray et al. (2011); Nicholas et al. (2017a,b); Suto et al. (2010); Tse et al. (2014); Van de Heuvel et al. (2015)
	Self-reminder	Blixen et al. (2016); Lam & Wong (1997)

	Self-monitoring and action	Blixen et al. (2016); Lam & Wong (1997); Mandla et al. (2017); Murray et al. (2011); Nicholas (2017a,b); Suto et al. (2010); Todd et al. (2012); Van den Heuvel et al. (2015)
	Self-distraction	Blixen et al. (2016)
	Self-help/Enjoyment/Relaxation activities	Blixen et al. (2016); Depp et al. (2009); Jupille et al. (2023); Lam & Wong (1997); Murray et al. (2011); Nicholas et al. (2017a,b); Suto et al. (2010); Todd et al. (2012); Tse et al. (2014)
	Self-discipline	Blixen et al. (2016); Depp et al. (2009); Granek et al. (2018); Lam & Wong (1997); Murray et al. (2011); Pollack (1996a,b); Suto (2010)
	Self-acceptance	Blixen et al. (2016); Demissie et al. (2021); Fernandez et al. (2014); Granek et al. (2018); Jupille et al. (2023); Mandla et al. (2017); Michalak et al. (2011); Nicholas et al. (2017a,b); Pollack (1996a,b); Todd et al. (2012); Vierthaler & Elliott (2022)
	Religious beliefs/practices	Blixen et al. (2016); Demissie et al. (2021); Granek et al. (2018); Pollack (1996a,b); Tse et al. (2014); Wang et al. (2009); Kwok (2014)
	Self-adjustment	Blixen et al. (2016); Murray et al. (2011)
	Self-control	Blixen et al. (2016); Demissie et al. (2021); Fernandez et al. (2014); Lam & Wong (1997); Pollack (1996a); Suto et al. (2010); Van den Heuvel et al. (2015); Wang et al. (2009)
	Self-avoidance/isolation	Blixen et al. (2016); Demissie et al. (2021); Granek et al. (2018); Lam & Wong (1997); Nicholas et al. (2017a,b); Pollack (1996a); Todd et al. (2012)
	Positive self/mindset cultivation	Blixen et al. (2016); Depp et al. (2009); Fernandez et al. (2014); Granek et al. (2018); Jupille et al. (2023); Mandla et al. (2017); Michalak et al. (2011); Pollack

		(1996a,b); Todd et al. (2012); Wang et al. (2009); Miller (2008)
	Self-engagement	Blixen et al. (2016); Granek et al. (2018); Jupille et al. (2023)
	Self-conviction	Demissie et al. (2021)
	Treatment adherence	Depp et al. (2009); Nicholas et al. (2017a,b); Pollack (1996a,b)
	Self-planning	Depp et al. (2009); Lam & Wong (1997); Murray et al. (2011); Nicholas et al. (2017a,b); Pollack (1996a); Suto et al. (2010); Todd et al. (2012); Tse et al. (2014); Vierthaler & Elliott (2022)
	Self-exploration	Depp et al. (2009); Nicholas et al. (2017a,b)
	Self-determination/perseverance	Fernandez et al. (2014); Pollack (1996a,b)
	Self-responsibility/accountability	Granek et al. (2018); Jupille et al. (2023); Michalak et al. (2011); Todd et al. (2012); Wang et al. (2009); Miller (2008)
	Self-independent	Jupille et al. (2023)
	Self-productivity	Jupille et al. (2023)
	Self-aspiration	Jupille et al. (2023); Pollack (1996a); Tse et al. (2014); Wang et al. (2009); Kwok (2014)
	Self-disclosure	Michalak et al. (2011); Nicholas et al. (2017a,b); Pollack (1996a); Vierthaler & Elliott (2022); Wang et al. (2009); Kwok (2014)
	Self-forgiveness	Suto et al. (2010)
Microsystem	**Contexts**	**References**
	Social (family/friends) support	Billsborough et al. (2014); Blixen et al. (2016); Demissie et al. (2021); Fernandez et al. (2014); Granek et al. (2018); Jupille et al. (2023); Lam & Wong (1997); Michalak et al. (2011); Kwok (2014); Miller (2008); Murray et al. (2011); Nichiolas et al. (2017a,b); Pollack (1996a); Suto et al. (2010); Todd et al. (2012); Tse et al. (2014); Van den Heuvel et al. (2015); Vierthaler & Elliott (2022); Wang et al. (2009)
	Healthcare providers' support	Billsborough et al. (2014); Blixen et al. (2016); Depp et al. (2009); Lam & Wong (1997); Mianji & Kirmayer (2023); Nicholas et al.

		(2017a); Pollack (1996a,b); Suto et al. (2010); Tse et al. (2014); Van den Heuvel et al. (2015); Wang et al. (2009); Kwok (2014)
	Workplace support	Granek et al. (2018); Suto et al. (2010)
	Mental health peer support	Jupille et al. (2023); Murray et al. (2011); Nicholas et al. (2017a,b); Pollack (1996a,b); Miller (2008)
	Other service providers' support	Michalak et al. (2011)
	Supporting/helping others	Pollack (1996a,b); Kwok (2014)
Mesosystem	**Contexts**	**References**
	Involvement from family and healthcare providers	Billsborough et al. (2014); Granek et al. (2018); Van den Heuvel et al. (2015)
	Interaction and engagement in support groups	Blixen et al. (2016); Fernandez et al. (2014); Pollack (1996b)
	Involvement from family and friends	Demissie et al. (2021); Granek et al. (2018); Jupille et al. (2023)
	Involvement from family and spiritual leaders	Granek et al. (2018)
Exosystem	**Contexts**	**References**
	Influence from the Internet/cyberspace/social media	Blixen et al. (2016); Mandla et al. (2017); Mianji & Kirmayer (2023); Murray et al. (2011); Nicholas et al. (2017a,b); Pollack (1996b); Suto et al. (2010); Todd et al. (2012); Tse et al. (2014); Wang et al. (2009); Kwok (2014); Miller (2008)
	Involvement and engagement with work-related organisational community	Blixen et al. (2016); Michalak et al. (2011); Murray et al. (2011); Suto et al. (2010); Tse et al. (2014); Van den Heuvel et al. (2015); Kwok (2014)
	Influence from caregiver's work/job	Demissie et al. (2021)
	Involvement of large organisational/community support services	Pollack (1996b); Tse et al. (2014)
Macrosystem	**Contexts**	**References**
	Religious ideology	Demissie et al. (2021); Mianji & Kirmayer (2023); Tse et al. (2014); Wang et al. (2009)
	Cultural norms/practice	Demissie et al. (2021); Tse et al. (2014)

Appendix 4. Categories of Self-Regulation Challenges Across Socio-Ecological Levels

Socio-ecological level -Challenges (Individual)	Contexts	References
	Self-stigma/Fear/Illness concealment	Blixen et al. (2016); Fernandez et al. (2014); Mandla et al. (2017); Mianji & Kirmayer (2023); Michalak et al. (2011); Nicholas et al. (2017b); Pollack (1996b); Wang et al. (2009)
	Self-distrust/degradation	Demissie et al. (2021); Fernandez et al. (2014); Mandla et al. (2017); Pollack (1996a); Tse et al. (2014); Kwok (2014)
	Loss of illness-/self-control	Demissie et al. (2021); Fernandez et al. (2014); Mandla et al. (2017); Nicholas et al. (2017b); Pollack (1996a); Van den Heuvel et al. (2015)
	Negative perception of treatment/Treatment side effects	Demissie et al. (2021); Fernandez et al. (2014); Mandla et al. (2017); Mianji & Kirmayer (2023); Pollack (1996a); Tse et al. (2014); Wang et al. (2009); Kwok (2014)
	Self-denial/ignorance	Blixen et al. (2016); Fernandez et al. (2014); Jupille et al. (2023); Pollack (1996a,b); Van den Heuvel et al. (2015)
	Functional/Work impairment	Fernandez et al. (2014); Jupille et al. (2023); Mandla et al. (2017); Nicholas et al. (2017b); Van den Heuvel et al. (2015); Vierthaler & Elliott (2022)
	Lack of illness self-knowledge/understanding	Jupille et al. (2023); Nicholas et al. (2017b); Tse et al. (2014); Kwok (2014)
	Negative perception of others	Pollack (1996a)
	Medication/Substance abuse	Pollack (1996a)
	Restrictions imposed	Pollack (1996a); Wang et al. (2009)
	Medical/Physical issues	Tse et al. (2014)
	Concurrent psychological challenges	Tse et al. (2014)
Microsystem	**Contexts**	**References**
	Overly involved/concerned carers	Billsborough et al. (2014); Van den Heuvel et al. (2015)

	Limited/Ineffective healthcare providers' support	Billsborough et al. (2014); Fernandez et al. (2014); Mianji & Kirmayer (2023); Pollack (1996b); Todd et al. (2012); (Kwok (2014); Miller (2008)
	Social stigma/discrimination/exclusion/isolation	Blixen et al. (2016); Demissie et al. (2021); Fernandez et al. (2014); Jupille et al. (2023); Mianji & Kirmayer (2023); Michalak et al. (2011); Nicholas et al. (2017b); Todd et al. (2012); Vierthaler & Elliott (2022); Wang et al. (2009); Kwok (2014)
	Lack of social (family/friends) support	Fernandez et al. (2014); Granek et al. (2018); Jupille et al. (2023); Mianji & Kirmayer (2023); Michalak et al. (2011); Pollack (1996a,b); Tse et al. (2014); Kwok (2014)
	Impaired interpersonal relationships	Fernandez et al. (2014)
	Lack of illness knowledge/understanding from others	Jupille et al. (2023); Nicholas et al. (2017b)
	Social stressors	Mandla et al. (2017)
Mesosystem	**Contexts**	**References**
	Under others' scrutiny	Fernandez et al. (2014)
Exosystem	**Contexts**	**References**
	Limited/Substandard treatment services	Billsborough et al. (2014); Mianji & Kirmayer (2023); Todd et al. (2012)
	Transportation facility issues	Blixen et al. (2016)
	Housing facility issues	Blixen et al. (2016); Pollack (1996a)
	High treatment costs	Mianji & Kirmayer (2023)
	Negative social media representation of mental illness	Michalak et al. (2011)
Macrosystem	**Contexts**	**References**
	Religion-related ordeal/difficulty	Mianji & Kirmayer (2023); Pollack (1996a)
	Negative cultural/societal perception of mental illness	Mianji & Kirmayer (2023); Michalak et al. (2011); Van den Heuvel et al. (2015); Wang et al. (2009)

Appendix 5. Semi-Structured Interview Guide

a) Opening

"Good morning/Good afternoon. I am Dr. Leong, a researcher for this study. Thank you for your willingness to participate. How is your mental health so far?"

"How long have you been experiencing emotional disturbances?"

"When did you first receive psychiatric treatment?"

"Are you aware of your current diagnosis? Are you comfortable with that?"

(Note: The purpose of this initial conversation is to understand the patient's perception of the psychological experiences he/she has had with bipolar disorder. The patient's term for bipolar disorder, which they are most comfortable or familiar with, will be adopted during the interview. In addition, information in the Participant Information Sheet will be used to guide the explanation process when necessary.)

"Now that I understand a little of your perspective on your mental health experience, let me start by reviewing some important information with you."

"This study aims to understand the participants' experiences managing their life while living with *(to use the terms or statements referring to bipolar disorder by the patient)*. Therefore, your responses to the interview are about your experiences in managing your life while having to live with *(to use the terms or statements referring to bipolar disorder by the patient)* for the past year or so. There is no right or wrong answer to your responses. Your responses should, at best, reflect your personal experiences. This information is useful to allow future mental health programmes to be developed that focus on the positive management of *(to use the terms or statements referring to bipolar disorder by the patient)*."

"Are you clear with the explanation?" "Do you have any/further questions?"

"Please do not hesitate to stop me if you have any questions along the way. Shall we begin?"

"May I get your consent to join this study by having your name and signature with today's date on this form, please?"

b) Principal question: Could you share three or more ways you usually use to manage life issues such as stress?

(Note:

- *For each method listed by the participant, the interviewer will explore socio-ecological aspects relevant to answering the research question. The subsequent questions asked will be guided by the participant's prior responses, the ongoing interview context at that time, and the relevant socio-ecological aspects elicited and explored during the interview.*

- *The way the questions are constructed is influenced by the research participants' level of understanding during the interview.)*

c) Ending

(i) Is there anything that you would like to add regarding the factors that assist or limit your living experiences with bipolar disorder?
(ii) What do you think about the interview today? How are you feeling now?
(iii) Thank you again for participating in this study. We appreciate your participation. Before we end the interview, is there anything else you want to say?

d) Examples of prompts or probing questions

(i) Could you elaborate more on this?
(ii) How does that work? Can you give me an example?
(iii) Could you give some examples regarding this?
(iv) Why did you choose this? Why not that? What about that?
(v) How so?
(vi) Does anything else come to mind?
(vii) What about the relationship between…and...?
(viii) Is there anything else you would like to add?

Appendix 6. A Sample of a Coded Interview Transcript

Interview transcript	Initial codes
Interviewer (I): Could you please share three ways you usually manage life issues, such as stress?	
Participant (P): I will talk to other people when I am not happy. I realise that after talking to them, my mood will become better. Another way is to watch videos. Also, I eat sugary food. It helps improve my mood. If my mood is severely disturbed, I will talk to my mother.	KH1: Talking to others, watching videos, and eating sugary food help improve mood (O1). KH2: Talking to his mother when in a bad mood (O1).
I: I see, so your first strategy is to engage in social interaction by talking to others when you're feeling down. Could you elaborate on that?	
P: I am Buddhist and regularly attend meetings. In them, we are encouraged to talk to others. So, when I see someone with similar issues to mine, I encourage them. I feel happier when I encourage someone. It's better that we interact with others than be alone, or you will not be happy.	KH3: Attending religious meetings regularly (O1). KH4: Being encouraged in religious meetings to communicate with others (O2). KH 5: Encouraging others with similar issues makes feeling happier (O1).
I: Do you have anyone specific that you tend to communicate with?	
P: No one specific: strangers, friends or my clients.	
I: You mentioned earlier that you would talk to your mother when you were in a bad mood…	
P: Yes. I am close to my mother.	KH6: Being close to the mother (O1).
I: Who are you staying with at home?	
P: My mother and elder sister. My father passed away.	
I: How is your relationship with your sister?	
P: So-so. She doesn't care much about me but doesn't treat me harshly either. She's busy with her work. Sometimes we talk a bit.	
I: Besides talking to your mother, what other support do you think your mother provided you?	
P: She diligently helps manage the housework, such as preparing meals and cleaning clothes, allowing me to focus on my work. I know I can't multitask, unlike some who can care for their children, work, and participate in social activities. For me, just working alone has used up all my time.	KH 7: Mother helps provide his daily needs, allowing him to focus on his work (O2). KH 8: Not being able to multitask (O2).

I am slower in doing things. This caused me a lot of stress when I was doing my matriculation studies, which triggered my illness. I: So, your illness started back then? P: Yes. My condition has improved as I have experienced many things over time. My current job as a property agent is very busy; I need to reply to many messages and meet with clients. I used to be a math teacher, teaching the subject I liked. The school principal and colleagues were encouraging. After work, I would go out with colleagues for social activities. I struggled for those few years as a teacher because of the heavy workload. I needed to mark assignments and help the school principal look after the students. I: What about your current job? P: I also like this job, but I am more occupied because I don't have a fixed time to rest. I feel stressed because when I wake up in the morning, I need to reply to a lot of messages. After that, I need to meet with clients. When I return from work, it's already nighttime. Sometimes, I envy other people who work on weekdays and rest on weekends. I: Do you find time to rest? P: Not much time to rest…only weekday. There was a time I felt high, around December or January until March or April, because of the high workload, and I needed to work almost every day. I: So, how do you cope? P: I cope by eating. I like eating, and my mood usually improves after that. I also feel that the approval I receive from my clients after talking to them makes me happy. So, I find that after talking to people, my mood improves. My mood was not too good, but I feel better after just talking to the doctor a while ago, and now you. I: Can you tell me about your work environment? P: The current work environment is quite good because no politics is involved. Besides, the working hours are flexible. I can arrange my work after I have had sufficient sleep. If I work at regular hours, I	KH52: Illness condition improves due to many experiences over time (O2). KH53: Busy workload (O2). KH9: Teaching a subject he likes (O2). KH10: Colleagues who are encouraging (O2). KH11: Going out for social activities with colleagues (O2). KH12: Struggling with teaching due to heavy workload (O2). KH13: Feeling stressed due to the amount of work and no fixed time to rest (O2). KH54: Envying other people with fixed time for rest during weekend (O3). KH14: Limited rest time (O2). KH15: Cope by eating as it helps improve mood (O1). KH16: Talking with others and getting their approval help improve mood (O1/O2). KH17: Pleasant work environment without politics (O2) KH18: Flexible work hours (O2).

will have to wake up around 5 or 6 am, and I may get caught in traffic. I will be tired upon reaching the office. I do not like mechanical engineering, even though I graduated with a good degree. I wanted to take up a teaching degree but did not. So, being a property agent suits me as I can talk with them and help them solve their housing or legal issues by introducing them to the right professionals. The work is not difficult, but recently, the workload has been heavy. I must deal with many things, like seeing clients, prior preparations, and office meetings. When I have more free time, I need to reply to around 100 messages. I: I see that you can be very busy at times. Does any of your colleagues help to lighten your workload in any way? P: Yes. My previous colleague left the company, and I reassigned her work to another colleague. So, she helped me set up the slides, create the advertisements, and prepare some documents. I: If needed, would you ask for your colleague's help? P: Yes. Whatever profit gained afterwards will be shared accordingly. I: Are your colleagues aware of your current psychiatric treatment? P: No, they don't know. I: Is there a reason why you do not disclose your treatment to them? P: No, but my close friends and relatives, like my aunt and cousin, know about my condition. My relatives are concerned about me, and my aunt called my mother yesterday to ask about me. I: How is your relationship with your relatives in general? P: We are good. We sometimes talk on the phone. When I call my aunt, we usually talk for about 30 minutes to one hour. We talk about life and work. Sometimes, she talks about her life issues, and I tell her about my condition. Yesterday, she called my mother and asked how I had been doing. I: Can you talk a bit about your close friends? P: I have one close friend who has bipolar disorder. He is a lecturer in Kampar. We	KH55: Start working after sufficient sleep (O1). KH19: Using his talking and helping skills in his work (O1). KH20: Heavy workload (O2). KH21: Reassigning work to another colleague (O1). KH22: Sharing workload and profit earned with colleagues (O1). KH23: Not disclosing mental health treatment to colleagues (O1). KH24: Awareness of illness by the people close to him (O2). KH25: Receiving concerns from relatives (O2). KH26: Close relationship with relatives and sharing of personal issues (O1/O2). KH27: Sharing about patient's condition among family members (O2).

knew each other in USM. His illness is more severe in that he was previously hospitalised for that. I know he is taking four types of medication. He usually calls me once a month, and we update each other about ourselves. When I notice changes in how he speaks, I will inform his wife. I: So, what have you learned from your friendship with him? P: Initially, I did not know too much about my illness condition. My mother also talked with his mother. Now, we are more aware of the presentation of illness. My friend is not the type who can express himself or counsel others. We care for each other like normal friends would do. He would look at his condition from a Christian perspective, and I would do the same from a Buddhist perspective. Sometimes, I would join his church meetings, and he would do the same. We support each other. I: Do you mean that you have also learned about bipolar disorder through your friendship with him? P: Yes. I am now more aware of the illness presentation. Also, when he is depressed, I would counsel him. I also realise that when you talk to someone who has no previous experience of bipolar disorder, he will not fully understand you. But when you talk to someone who has bipolar disorder, even though he may not be able to answer, he can understand you. I: Do you have other friends who can provide you with similar support besides the friend you talked about? P: Sometimes, I would tell my other friends about my mood condition, and they would help monitor me. But they don't really understand about my illness condition. I have another friend who has depression but not bipolar disorder. We would encourage each other. I: I see. The second way you would help yourself was by watching videos. Can you tell me more? P: I like to watch YouTube videos about psychology and counselling. In the evening, I watch movies. I: How does this method help you?	KH28: Mutual support with a friend of similar illness condition (O1). KH29: Supporting a friend with a similar condition by alerting the friend's family when the friend was unwell (O1). KH30: Becoming more aware about the illness through involvement of their families (O2). KH31: Seeing illness and supporting each other from a spiritual perspective (O1/O2). KH56: Joining religious meetings (O1). KH32: Being aware of the illness through friendship with someone with similar condition (O2). KH57: Counsel friend when he's depressed (O1/O2). KH33: Realisation that people with similar condition understand each other better (O2). KH34: Receiving help from friends to monitor his mood (O2). KH35: Mutual support with a friend with depression (O2). KH36: Watching videos about psychology and counselling, and movies (O1).

P: It helps me by focussing on the present and not on something unhappy. It helps me not to ruminate about negative things. I: Right. You also mentioned using eating to help yourself… P: My family and I love eating. I am happy when I eat. Sometimes, I travel with my family to eat. Also, after work, I sometimes find the food I like to eat. I: How easy is it to travel from where you live to buy food? P: No nearby places sell food, and you need to drive around three minutes to the location. My mother will also prepare food at home. Like recently, my mood was not good, and my mother was not at home, but I was still able to go out to buy food despite feeling not too comfortable in public. I: So, when your mood was not good, did you seek professional help? P: Yes. I also managed to find an online counselling service and seek treatment from a private psychiatrist. I: What do you think about your current treatment? P: The medication I am taking causes sedation and drowsiness. But they can help control mood and prevent manic symptoms like excessive spending, feeling grandiose, and talking loudly. I: So medication can help control mood, but also they come with side effects. P: Yes. Hopefully, new medicine in the future can help stabilise mood without causing excessive sedation. I: Besides medication, how's your interaction with your treating doctor? P: The interaction is fine. However, I find that the Malaysian mental health system could be improved in that the treatment should include counselling. In the UK, where my friend works, they give both treatment and counselling. But in Malaysia, when you have a problem, you will be given medication mainly. Maybe in our lives, we face a lot of issues. For example, at work or when we have negative thinking, taking medication can only stabilise the emotion, but how do I tackle the negative thoughts or rumination thoughts? Or what do I need to	KH37: Watching videos helps to focus on the present moment and prevents rumination (O2). KH38: Travelling with the family to eat (O1). KH39: Finding preferred food to eat after work (O1). KH40: Seeking and receiving mental health support when mood is not good (O1). KH41: Experiencing sedation and drowsiness with medication (O2). KH42: Medication helps control mood (O2). KH43: Needs medication that does not cause excessive sedation (O3). KH44: Needs improved mental health treatment in Malaysia, i.e., to include counselling, and not focus on medication mainly (O3).

do every day to maintain well-being? I have tried counselling therapy in this hospital, and it was done in Malay. So, I have difficulty expressing myself. Maybe it was also a lack of professionalism. It did not help much.	KH45: Difficulty expressing self in counselling when done in Malay (O2).
I: What do you mean by lack of professionalism?	
P: I was not given much help, and I did not see the result. Also, the person did not appear to be attentive to our conversation.	KH46: Counsellor not attentive during conversation (O2).
I: I see. Besides the ones you have just talked about, are there any other methods or ways that you would use to help yourself?	
P: Another thing is related to work. You will feel happy working daily when you focus and do the things you like that align with your character. This is what I did with my studies, teaching, and current profession. So, I am doing what I like to do. When I worked as a teacher, I only took minimal medication. Maybe I also had a bit of mania at that time, but it helped me in improving my thinking. In exams, I spent two hours answering six questions when normally the same duration to answer four questions, but I got good results. The mania increases my self-esteem, gives me confidence, and helps me learn faster. But you can't exceed the limit. Once it is exceeded, your mood will become unstable, like easily irritable, excessive spending, many ideas, and strong sexual desires.	KH47: Focussing and doing the things that he likes (O1). KH48: Mania helps in thinking, self-esteem, confidence, and learning (O2). KH49: Mania, when it has exceeded its limit, causes mood instability, excessive spending, flight of ideas, and strong sexual desires (O2).
I: Were you aware when they happened?	
P: Sometimes, but initially, you would think you are normal. Later, you realise that you are high and irritable, then you will know something is not right. In the beginning, you feel good because your productivity increases. Gradually, your ability to focus deteriorates. But I have not had any hallucinations before.	KH50: Realising that something is not right when mood becomes high and irritable (O1).
I: Is there anything else you would like to add?	
P: I prefer to live simply because I can't multitask. I am not planning to get married and do not intend to buy many things so as not to give myself too much commitment. Sometimes, I feel sad, but at least I do not	KH51: Preference for simple living to have less worry, and in return, helping illness condition (O1).

need to worry about them. When I worry less, this will also help in my illness. I: I see. Any other thing you want to add? P: No. I: Thanks for sharing your experiences and willingness to participate in this study.	(Total data fragments: 57)

Appendix 7. Development of Codes in a Sample of an Interview Transcript

Initial codes	Current codes
Religion KH3: Attending religious meetings regularly. KH4: Being encouraged in religious meetings to communicate with others. KH31: Seeing illness and supporting each other from a spiritual perspective. KH56: Joining religious meetings.	Regularly attending religious meetings and being encouraged in the meetings to communicate with others (KH3, KH4, KH56) ***As KH1*** Seeing illness and supporting each other from a religious perspective (KH31) ***As KH2***
Family and friends support KH2: Talking to his mother when in a bad mood. KH6: Being close to the mother. KH 7: Mother helps provide his daily needs, allowing him to focus on his work. KH25: Receiving concerns from relatives. KH26: Close relationship with relatives and sharing of personal issues. KH27: Sharing about patient's condition among family members. KH34: Receiving help from friends to monitor his mood.	Developing close relationships and receiving help from his mother, relatives, and friends with the sharing among family members of his condition (KH2, KH6, KH7, KH25, KH26, KH34) ***As KH3***
Mutual support KH 5: Encouraging others with similar issues makes feeling happier. KH28: Mutual support with a friend of similar illness condition. KH35: Mutual support with a friend with depression. KH57: Counsel friend when he's depressed. KH33: Realisation that people with similar condition understand each other better. KH29: Supporting a friend with a similar condition by alerting the friend's family when the friend was unwell.	Mutual support, encouragement, and counselling for those with similar issues (KH5, KH28, KH35, KH57) ***As KH4*** Realising that people with similar conditions understand each other better (KH33) ***As KH5*** Supporting a friend with a similar condition by alerting the friend's family when the friend is unwell (KH29) ***As KH6***
Work KH53: Busy workload. KH10: Colleagues who are encouraging. KH11: Going out for social activities with colleagues.	Stressed due to busy and heavy workload and limited time to rest (KH9, KH12, KH13, KH14, KH20, KH53) ***As KH7***

KH9: Teaching a subject he likes. KH12: Struggling with teaching due to heavy workload. KH13: Feeling stressed due to the amount of work and no fixed time to rest. KH14: Limited rest time. KH17: Pleasant work environment without politics. KH18: Flexible work hours. KH55: Start working after sufficient sleep. KH19: Using his talking and helping skills in his work. KH20: Heavy workload. KH21: Reassigning work to another colleague. KH22: Sharing workload and profit earned with colleagues.	Going out for social activities with supportive colleagues (KH10, KH11) ***As KH8*** Flexible working hours and sharing the workload with colleagues allow sufficient rest (KH18, KH21, KH22, KH55) ***As KH9*** Pleasant work environment without toxic politics involved (KH17) ***As KH10*** Use his talking and helping skills at workplace (KH19) ***As KH11***
<u>Illness disclosure/awareness</u> KH23: Not disclosing mental health treatment to colleagues. KH24: Awareness of illness by the people close to him. KH30: Becoming more aware about the illness through involvement of their families. KH32: Being aware of the illness through friendship with someone with similar condition.	Selective disclosure of mental health condition only to the people close to him (KH23, KH24) ***As KH12*** Increased illness awareness through friendship with people of similar conditions and through involvement from their families (KH30, KH32) ***As KH13***
<u>Watching videos</u> KH36: Watching videos about psychology and counselling, and movies. KH37: Watching videos helps to focus on the present moment and prevents rumination.	Watching mental health educational videos and movies helps him focus at present and prevents rumination (KH36, KH37) ***As KH14***
<u>Counselling</u> KH44: Needs improved mental health treatment in Malaysia, i.e., to include counselling, and not focus on medication mainly. KH45: Difficulty expressing self in counselling when done in Malay. KH46: Counsellor not attentive during conversation.	Limited efficacy of counselling service received (KH44, KH45, KH46) ***As KH15***

<u>Mania</u> KH48: Mania helps in thinking, self-esteem, confidence, and learning. KH49: Mania, when it has exceeded its limit, causes mood instability, excessive spending, flight of ideas, and strong sexual desires. KH50: Realising that something is not right when mood becomes high and irritable.	Awareness that something is not right when the mood becomes high and irritable with its disturbing features (KH49, KH50) ***As KH16*** Mania is perceived as helping with thinking, self-esteem, confidence, and learning (KH48) ***As KH17***
<u>Medication</u> KH41: Experiencing sedation and drowsiness with medication. KH42: Medication helps control mood. KH43: Needs medication that does not cause excessive sedation.	Medication helps control mood but experiences sedation and drowsiness (KH41, KH42) ***As KH18*** Needs medication that does not cause excessive sedation (KH41, KH42, KH43) ***As KH19***
<u>Eating</u> KH15: Cope by eating as it helps improve mood. KH38: Travelling with the family to eat. KH39: Finding preferred food to eat after work.	Cope by eating preferred food as it helps to improve mood (KH15, KH39) ***As KH20*** Travelling with the family to eat (KH38) ***As KH21***
<u>Independent others</u> KH: Talking to others, watching videos, and eating sugary food help improve mood. KH 8: Not being able to multitask. KH52: Illness condition improves due to many experiences over time. KH16: Talking with others and getting their approval help improve mood. KH40: Seeking mental health support when mood is not good. KH47: Focussing and doing the things that he likes. KH51: Preference for simple living to have less worry, and in return, helping illness condition.	Not being able to multitask (KH8) ***As KH22*** Perceived illness condition improves due to many experiences over time (KH52) ***As KH23*** Talking to others and getting their approval motivates him (KH16) ***As KH24*** Seeking mental health support when not in a good mood (KH40) ***As KH25*** Focussing and doing things which he likes (KH47) ***As KH26*** Prefers simple living to have less worry and help improve illness condition (KH51) ***As KH27***

Appendix 8. Clustering of Codes from All Interview Transcripts

Current codes
Illness-related and professional treatment/support Regularly taking medication helps feel better and improves life (CL3, CL4, CL11, CL24) ***As CL 1*** Experiencing medication side effects, i.e., slower responses and sleepiness, affecting personal and work activities (C22, C23, C38) ***As CL3*** Discussing with the doctor about the medication issue (CL25) ***AS CL4*** Workplace influences selective disclosure with colleagues about mental health conditions due to concerns about misperceptions from others (CL26, CL27, CL28, CL30, CL34, CL35, CL36) ***As CL16*** Long waiting hours to receive treatment and limited vehicle parking space at the treatment centre (CL42, CL45, CL47, CL57) ***As CL18*** Limited health awareness during illness (CL1, CL46) ***As CL20*** Negative perceptions about mental illness from her family (NA13, NA14) ***As NA4*** Selective sharing about mental health condition with her friends as not wanting to disturb the others (NA24) ***As NA5*** Disclosing her mental health illness to her family (NA16) ***As NA7*** Experiencing medication side effects and issues (NA1, NA3) ***AS NA8*** Taking medication makes things alright (NA18) ***As NA9*** Mental health support teams from the psychiatrist, psychologist, and occupational therapist help address her different treatment needs, i.e., medication, life issues advice, and relaxation (NA6, NA7, NA11, NA22, NA45, NA47, NA51) ***As NA10*** Different levels of competency and unhelpful approaches from medical professionals who attended her for mental health issues (NA9, NA10, NA21, NA22, NA46, NA50) ***As NA11*** Asking her doctor to explain her mental health condition to her family (NA48) ***As NA12*** Not disclosing mental health condition with colleagues (NA28) ***As NA 15*** Not disclosing mental health conditions to family, housemates, and colleagues as not wanting to make them worry, avoid them from asking too much, and worry that the colleagues might perceive him as pretending and not working hard (MI4, MI8, MI26, MI17) ***As MI1*** Not disclosing about bipolar disorder in the workplace after reading on social media not to disclose sensitive personal information to colleagues (MI15, MI16) ***As MI2*** Disclosing mental health condition to the family after the family discovers and asks about his medication (MI7, MI25) ***As MI3*** Difficulty controlling self when in mania (MI1) ***As MI13*** Taking medication improves his anxiety and work performance (MI13) ***As MI14*** No transportation issue to the hospital for treatment (MI29) ***As MI16*** Not sharing personal problems with others after her doctor's advice to prevent others from laughing at her (ML4) ***As ML9*** Received advice from the counsellor (J29) ***As J3*** Talking to a counsellor regularly to cope with emotional issues (J18) ***As J12*** Difficulty coping with illness at the beginning of illness (J27) ***As J15*** Diligent medication intake (J17) ***As J16*** The positive OT environment helps her focus on the activity and not think about her problems (NN15, NN16) ***As NN8*** No problem going for regular monthly treatment at the clinic as she is sent there by her parents (NN19, NN20) ***As NN11*** Experiencing sedation with medication (NN18) ***As NN16***

Selective disclosure of mental health conditions to friends and colleagues as not wanting them to worry or think too much about it (ZP21, ZP22) ***As ZP7***
Selective disclosure of mental health condition only to the people close to him (KH23, KH24) ***As KH12***
Limited efficacy of counselling service received (KH44, KH45, KH46) ***As KH15***
Mania is perceived as helping with thinking, self-esteem, confidence, and learning (KH48) ***As KH17***
Medication helps control mood but experiences sedation and drowsiness (KH41, KH42) ***As KH18***
Perceived illness condition improves due to many experiences over time (KH52) ***As KH23***
Seeking mental health support when not in a good mood (KH40) ***As KH25***
Taking medications to help stabilise emotions and maintain sleep but experiencing excessive sedation with it (WP2, WP3, WP6, WP8, WP32) ***As WP2***
Making a complaint to the department after being suggested by a doctor due to repeated ineffective medication changes, which resulted in him being unable to work (WP7, WP9, WP10, WP11) ***As WP3***
Treated by friendly doctors at his regular clinic follow-ups (WP12, WP13) ***As WP4***
Speaking up for himself and others about their treatment needs (WP36) ***As WP5***
Perceived mania as improved cognition with many ideas and heightened ability (WP29, WP30, WP39) ***As WP12***
Informing his doctor when being unwell due to medication-induced mania (WP27, WP28) ***As WP13***
Selective disclosure of mental health condition to close friends (WP23) ***As WP14***
Disclosing mental health conditions at the workplace and receiving colleagues' support (SA15, SA16) ***As SA7***
Experiencing different levels of interest from doctors in exploring personal problems and not sharing with them if they are not interested (SA32, SA33) ***As SA15***
Doctor's disinterest in conversation and long wait hours but short consultation time affect mood and interest to talk with the doctor (SA34, SA35) ***As SA16***
Refusing doctor's advice for admission (SA53) ***As SA17***
Unsure if the treatment received is correct due to changing diagnosis (SA29) ***As SA18***
Seeking help from a physician for weight management and listening to the doctor's advice to stop weight reduction medicine (SA41, SA57) ***As SA19***
Being consistent with medication intake but with a tendency of poor adherence when well and aware and seeking early treatment when unwell (SP3, SP20, SP31, SP56, SP58) ***As SP11***
Requesting the doctor only to increase the medication dosage slowly to get used to it, and worry that the doctor might change the medication and the need to adapt to the new medicine again (SP34, SP41) ***As SP12***
Finding it difficult to communicate due to the presence of several doctors and patients in the same room, and hoping to talk privately with a doctor in a suitable environment and see a Chinese doctor due to a language barrier with other doctors (SP35, SP39, SP40, SP57) ***As SP13***
Not difficult coming for treatment (SP62) ***As SP14***
Taking medication as prescribed but feels it has lost its efficacy, and stopping medication due to side effects, did not think of being ill at that time, not wanting to be dependent on them (MA25, MA27, MA49) ***As MA9***
Stopping medication upon the advice from others regarding the harmful effects of the medicines on health and informing the doctor about their side effects (MA28, MA29) ***As MA10***
Not tell the doctor about his stress unless it is severe and unable to sleep at night as they tend to focus on medication and do not provide tips to deal with stress, but one doctor taught him to take deep breaths when anxious (MA8, MA30, MA31, MA50) ***As MA11***

Not difficult going to the hospital (MA32) ***As MA13***
Not understanding bipolar disorder at the beginning of the illness (MA52) ***As MA23***
Attributed better illness control and improved bipolar disorder condition due to age and maturity (SS25, SS31, SS32) ***As SS14***
Feeling stressed with previous doctors with bad attitudes, which made her feel forced to take prescribed medication until she met the current doctor, who makes her feel motivated to improve herself that motivates her to wait until feeling improved before seeing the doctor as she does not want to disappoint the doctor (SS37, SS40, SS42, SS44, SS45, SS49) ***As SS16***
Needing a consultant's advice and not worry when telling her doctor, who listens to her issues and adjusts her medication accordingly, which helps her become better (SS38, SS39, SS46, SS47, SS48) ***As SS19***

(Illness-related and professional treatment/support)

<u>Family/social supports/relationships/interactions</u>

Husband's involvement in providing support and encouragement in her life and treatment (CL2, CL10, CL13, CL14, CL15, CL41, CL44, CL53) ***AS CL8***
Ignoring husband's negative attitude (CL39) ***As CL9***
Husband's problem at work affects his treatment of her at home (CL37) ***As CL10***
Husband's sharing personal work issues with her at home (CL56) ***As CL11***
Involvement of her mother-in-law to look after her children reduces stress in her life (CL12, CL17, CL51) ***AS CL 12***
Mother's involvement in giving life and treatment advice (CL16, CL49) ***As CL13***
The father's condition and unpleasant behaviour negatively affect her (NA4, NA5, NA17, NA19, NA 31) ***As NA 1***
Calling her sister for comfort after being triggered by her father (NA20) ***As NA2***
Support and involvement of her aunt, friends, and her doctor in providing support and explaining her mental health condition to her family (NA12, NA15, NA23, NA24, NA44) ***As NA3***
Telling her family that she's not ready for studies (NA49) ***As NA6***
Likes meeting and interacting with people around her with similar mental health issues but avoiding those whom she knew and those asking her personal questions (NA36, NA37, NA39, NA42) ***As NA18***
Close contact with his partner who provides constant accompaniment, care, and concern (MI5, MI6) ***As MI4***
Improved relationship with his parents due to their changing behaviour by providing equal treatment among him and other siblings over the years (MI9, MI10, MI27) ***As MI5***
Meeting up and making friends with strangers as they are friendlier (MI11, MI12) ***As MI6***
Not close to neighbours due to previous unpleasant history with them (MI28) ***As MI7***
Partner's regular contact and accompaniment to the hospital (MI20, MI21) ***As MI8***
Playing with her children (ML16) ***As ML4***
Talking to her father or her son as a way to deal with life-related stress or problems (ML6, ML18) ***As ML6***
Regularly shares her problems with her aunt, her cousins, and friends at work (J4, J5, J7, J8, J12, J13, J14, J15, J28) ***As J1***
Aunt looks after her medication intake (J3) ***As J2***
Eating out with his housemate (WJ27) ***As WJ4***
Continuous interactions without carrying any prejudice with people of different cultures help improve relationships (WJ9, WJ28) ***As WJ10***

Her husband's friends influence him to distrust and suspect her of an affair and discourage her from advancing in her career (LF9, LF13, LF33, LF36, LF37) ***As LF1***
Staying quiet and being patient with him, or trying to avoid him when he's not in a good mood or when she's stressed with him (LF1, LF2, LF17, LF18) ***As LF2***
Husband cares for her when unwell but seldom available to look after the family and scolds her when he's in a bad mood or when she asks him money to pay the household bills (LF6, LF16, LF20, LF21) ***As LF3***
Building courage with alcohol to confront her husband and tell him about disliking joining him for drinks with his friends (LF11, LF30) ***As LF4***
Observing her husband's mood during the day before deciding her next action and determining to earn money to repay her husband to avoid his scolding (LF40, LF41) ***As LF5***
Husband prefers wife not to work and to accompany him to drink with his friends (LF29) ***As LF6***
Receiving her mother's and sibling's encouragement and support (LF22, LF23) ***As LF12***
Requesting her mother to stay and help her around (LF7) ***As LF13***
Sharing problems with a close friend and receiving advice from her (L14) ***As LF14***
Meeting outside people gives her a sense of acknowledgement and agreement from others (LF27) ***As LF18***
Frequent arguments with family due to disagreement and different opinions, and needing to submit to her parents' wishes all the time (NN2, NN3) ***As NN1***
The father takes things lightly and is critical, the mother nags a lot, and feeling excluded from the family cause her not to request help from the family (NN4, NN5, NN24) ***As NN2***
Feeling uncomfortable sharing her problems as she worries that others might be uncomfortable or judge her for that (NN6, NN7) ***As NN4***
Shares personal problems with friends but not ask for any help (NN25, NN26) ***As NN5***
Feeling anxious around people due to her worry that she might offend others and vice versa (NN17) ***As NN15***
Sharing life issues and spending time together with family and friends who provide encouragement, support, and advice (ZP1, ZP4, ZP5, ZP6, ZP7, ZP9, ZP10, ZP13) ***As ZP1***
Developing close relationships and receiving help from his mother, relatives, and friends with the sharing among family members of his condition (KH2, KH6, KH7, KH25, KH26, KH34) ***As KH3***
Mutual support, encouragement, and counselling for those with similar issues (KH5, KH28, KH35, KH57) ***As KH4***
Supporting a friend with a similar condition by alerting the friend's family when the friend is unwell (KH29) ***As KH6***
Going out for social activities with supportive colleagues (KH10, KH11) ***As KH8***
Travelling with the family to eat (KH38) ***As KH21***
Talking to others and getting their approval motivates him (KH16) ***As KH24***
Good relationships with siblings and uncles due to their unconditional love and forgiveness of his past mistakes (WP24, WP25, WP26) ***As WP10***
Not close with wife and children (WP38) ***As WP11***
Talking to his friends who give him advice when his mood is bad (WP22) ***As WP15***
Returning to hometown to be with parents and family due to feeling lonely at home (SA10, SA11, SA47) ***As SA10***
Being with siblings and friends when unwell or going travelling when not feeling well (SA12, SA13, SA27, SA49) ***As SA11***
Limiting social circle with no other friends outside work and only interacting with familiar people due to a history of being judged by unfamiliar people (SA20, SA21, SA22, SA52) ***As SA12***
Not mixing with or talking to people who gossip to avoid being judged by others (SA23, SA54) ***As SA13***

Joining friends for an aerobic dance in a public park (SP4, SP5, SP7) ***As SP3***
Being with friends for regular light exercises at the park (SP8) ***As SP5***
Talking and sharing life issues with the church pastor and her husband (SP2, SP17) ***As SP8***
Husband takes care of her, accompanies her, makes sure of her medication intake, and drives her around, e.g., to the hospital, visiting the elderly, shopping (SP18, SP19, SP21, SP28, SP38, SP61) ***As SP9***
Telling the pastor, who listens, understands, prays, and provides emotional support when she's unwell (SP22, SP52) ***As SP10***
Limited interactions with younger counterparts in church neighbours have resulted in very few close friends and difficulty asking for help when needed (SP16, SP48) ***As SP11***
Encouraging her husband, who has depression, and his condition causes her stress and affects her mood (SP44, SP46, SP53) ***As SP20***
Looking after herself and asking her husband to let her leave home for a while to prevent the worsening of her condition so that, in return, she can care for him, and hoping they can care for each other (SP32, SP33, SP60, SP63) ***As SP21***
Sharing problems with religious teacher who gives advice on what to do (MA10, MA11) ***As MA4***
Being close to his parents, and his father frequently gives him advice and buy him supplements and good food for the family (MA17, MA19, MA20, MA24) ***As MA5***
Family support is important to overcome bipolar disorder (MA45) ***As MA8***
Meeting friends or doing some work (MA4) ***As MA21***
Learning to cook for self and family from watching cooking programmes (SS59) ***As SS3***
Sharing interests, experiences, and life issues with her sister, who has helped her to avoid self-injurious behaviour and allowed her to continue living (SS13, SS14, SS16, SS17, SS18, SS19) ***As SS6***
Drawing a boundary on employer-employee relationship with no close friends and limited friendship experience (SS61, SS62, SS63) ***As SS8***
Venting out to her father and using her sister's help to make her father understand bipolar disorder and both provide support emotionally and financially (SS11, SS15, SS24) ***As SS9***
Not receiving close support from other siblings and no good relationship outside the family circle (SP23, SS65) ***As SS10***
Strained relationship with her mother due to the mother's preferential treatment of her children and the mother's OCD which has made the mother not keen on bonding with her, resulting in her being careful when talking to her mother to avoid triggering the mother (SS12, SS26, SS27) ***As SS11***
Some family members and her mother take her bipolar disorder lightly, and the mother keeps stressing her out about her unemployment (SS28, SS29, SS30) ***As SS12***
The mother does not like her bringing friends home (SS64) ***As SS13***
Feeling judged by the public causes her to be anxious and check others' moods before interacting with them and adjust interactions accordingly (SS10, SS67) ***As SS26***
Being responsible for self and parents (SS51) ***As SS27***

(Family/social supports/relationships/interactions)

<u>Leisure/recreation/physical strategies</u>

Doing regular physical exercises (CL6, CL7) ***As CL5***
The availability of the badminton court for playing badminton (CL8) ***As CL6***
The involvement of her husband and his friends in her physical exercises (CL9) ***As CL7***
Practices regular sleep pattern (CL5) ***As CL21***

Keeping herself busy by being active at work and doing something helps prevent overthinking and feeling depressed (NA2, NA25, NA30) ***As NA12***
Likes going to the public library and prefers public transportation (NA33, NA38) ***As NA21***
Likes jogging, music, trekking, travelling, and food hunting (NA32, NA34) ***As NA22***
Going for regular exercises and sightseeing, and spending time with stray cats help him relax and improve mood condition (MI2, MI3, MI19, MI24) ***As MI10***
Going to the social club to relax, draw courage, and to feel calm and happy (ML2, ML3, ML5, ML11) ***As ML1***
Going to the club by bus if her father cannot accompany her (ML12) ***As ML2***
Finding things to do (ML8) ***As ML3***
Playing with her phone (ML17) ***As ML5***
Going to the shopping mall within walking distance from her house to shop (J2, J21, J22) ***As J4***
Doing online shopping with her phone when not able to sleep (J19, J20, J30) ***As J5***
Stop buying books to read as there is no space to keep them at home (J23, J24) ***As J9***
Listening to music and watching TV programmes or movies as a form of coping (J1) ***As J11***
Doing gardening (J25) ***As J13***
Developing a cooking habit at home to help him relax (WJ4, WJ5, WJ25) ***As WJ1***
Shopping for food and cooking ingredients are not difficult (WJ26) ***As WJ2***
Shopping for food as a relaxing activity (WJ7) ***As WJ3***
Regular physical exercises with his housemate at a gym facility in the housing area (WJ8, WJ10, WJ11) ***As WJ5***
Playing online games to deal with stress (WJ21) ***As WJ6***
Doing exercise after realising excessive eating will not solve the problem (WJ1, WJ2) ***As WJ7***
Playing online games regularly is like therapy, which helps him relax (WJ3, WJ12, WJ14) ***As WJ8***
Taking short breaks or a walk to calm down during mood swings (WJ22, WJ23) ***As WJ13***
Listening to podcasts when driving (WJ6) ***As WJ15***
Keeping herself occupied and busy by focussing on her career as a way to deal with her stress (LF4, LF10, LF26) ***As LF7***
Using earplugs to help her sleep when the noises made by her husband disturb her sleep (LF15, LF39) ***As LF17***
Watching movies and TikTok on her phone prevents her from thinking about her problems (NN 10, NN11) ***As NN6***
Feeling good doing the artwork after suggested by the OT (NN12, NN13, NN14) ***As NN7***
Using sleep to prevent thinking about her conflicts with other people (NN1) ***As NN14***
Likes listening to music (songs) by relating to the meaning of the lyrics and singing (ZP2, ZP11, ZP12, ZP28) ***As ZP5***
Taking a walk outside (ZP3) ***As ZP10***
Watching mental health educational videos and movies helps him focus at present and prevents rumination (KH36, KH37) ***As KH14***
Cope by eating preferred food as it helps to improve mood (KH15, KH39)
As KH20
Smoking cigarettes with control to relax from stress, anxiety or worry (WP1, WP4, WP33, WP35) ***As WP1***
Exercise after work depends on time availability and his mood (WP17, WP18, WP19) ***As WP9***
Listening to music to relax (WP5) ***As WP16***
Sleep to help feel better and forget problems for a while (SA1, SA5) ***As SA1***
Sleep when depressed but made some adjustments to allow sleep at night without sleeping pills by changing and adjusting routine and engaging in outdoor physical exercises (SA7, SA9, SA31) ***As SA2***

Stop taking sleeping pills so as not to be dependent on them but retake them due to concerns about poor sleep affecting her mood and work (SA28, SA55, SA56, SA58) ***As SA3***
Doing night shifts to allow daytime sleep (SA6) ***As SA4***
Reducing and controlling diet despite liking to eat for weight management and to feel better (SA38, SA42) ***As SA20***
Eating good food outside (SA39) ***As SA21***
Eating out at good places with siblings (S40) ***As SA22***
Binged eating to feel happy (SA43) ***As SA23***
Regularly watching movies in the cinema to feel better (SA3, SA45, SA46) ***As SA24***
Doing regular outdoor physical activities and reducing time at home improve mood and sleep (SA36, SA37, SA44) ***As SA25***
Tidying house and doing other things to fill time (SA48) ***As SA27***
Enjoys aerobic exercise with music to manage stress and help her feel relaxed (SP1, SP11, SP50) ***As SP2***
Engaging in regular physical exercise (SP9) outside is better than staying at home doing nothing (SP9, SP12) ***As SP6***
Doing exercise at home with YouTube when can't do it outside (SP13) ***As SP7***
Forcing self to exercise during low motivation (SP36) ***As SP22***
Being in nature doing physical exercises and meeting with friends help with relaxation and improves sleep (SP47) ***As SP27***
Regular physical exercises at a natural park and the housing area help relieve stress (MA5, MA37, MA38, MA39) ***As MA16***
Busying self with activities (MA3) ***As MA20***
Spending time playing with pets and feeding the stray cats and dogs make her feel loved and appreciated (SS1, SS2, SS9) ***As SS1***
Not putting boundaries on what she watches (e.g., horror movies, cartoons) helps her release stress and feel peaceful and allows her to understand the life experiences of others (SS3, SS4, SS5, SS52, SS53) ***As SS2***
Use driving and listening to songs/music in the car to deal with stress and as an escape from home (SS6, SS7, SS8, SS54, SS55) ***As SS4***
Driving out, travelling, and going shopping and car wash is like therapy for her (SS56, SS60) ***As SS5***
Using sleep to stop her from thinking a lot (SS35, SS36) ***As SS15***
Buying something useful for the kitchen helps her cope (SS57, SS58) ***As SS20***

(Leisure/recreation/physical strategies)

<u>Home/work/school</u>

Tendency for negative thinking and worry at home and about the children (CL20, CL21, CL52) ***As CL14***
Going out to work outside to prevent boredom and negative thoughts at home (CL18, CL19, CL29) ***As CL15***
Being a teacher gives her a sense of accomplishment (NA27) ***As NA13***
Asking colleagues for work advice (NA29) ***As NA15***
The work supervisor understands his anxiety and arranges night shifts for him (MI14) ***As MI9***
Transportation system changes has caused her difficulty travelling to work (J10) ***As J6***
Work-related issues have contributed to her stopping work (J9) ***As J7***
Difficulty travelling to work due to ageing (J11) ***As J8***
Quiet and safe housing environment (J26, J31) ***As J10***

Improved communication and performance at work due to online gaming activity (WJ20) ***As WJ9***
Not difficult to access nearby facilities at the housing area (NN27) ***As NN10***
Staying back to work after studies and avoiding home due to conflicts with parents (NN21) ***As NN12***
Resign from work due to problems with colleagues (NN22) ***As NN13***
The availability of mental health support services in the college (ZP27) ***As ZP2***
Joining and helping in college clubs and mental health campaigns and meeting with people with similar interests (ZP15, ZP16, ZP17) ***As ZP3***
Conducive study and cultural environment in college (ZP14) ***As ZP4***
Good relationship with employer and work colleagues (ZP20, ZP29) ***As ZP6***
Staying at home when not studying (ZP26) ***As ZP12***
Stressed due to busy and heavy workload and limited time to rest (KH9, KH12, KH13, KH14, KH20, KH53) ***As KH7***
Flexible working hours and sharing the workload with colleagues allow sufficient rest (KH18, KH21, KH22, KH55) ***As KH9***
Pleasant work environment without toxic politics involved (KH17) ***As KH10***
Use his talking and helping skills at the workplace (KH19) ***As KH11***
Strenuous work results in stress, tiredness, and trouble sleeping (WP14, WP31, WP34, WP37) ***As WP6***
Better job management when working together with another colleague and having a good relationship with the employer (WP15, WP16) ***As WP7***
Good air quality in the housing area (WP21) ***As WP17***
Limiting interactions with colleagues at the workplace initially but then found them to be helpful and joined them in outdoor physical exercises (SA14, SA50, SA51) ***As SA5***
Being at work helps against feeling depressed (SA8) ***As SA6***
No workplace discrimination or unequal work opportunities (SA18, SA19) ***As SA8***
Seeking matron's help when experiencing work problems (SA17) ***As SA9***
Stopping regular work for volunteer work as being unable to withstand stress and doing what she is capable of, like visiting the elderly in nursing homes, makes her feel useful and worthy with no one gives her stress (SP23, SP27, SP29, SP30, SP54) ***As SP17***
Living in a high-rise building is perceived as not suitable due to suicidal thoughts when unwell (SP42) ***As SP24***
Work helps his thinking, allows normal living, maintaining health, earning money, and providing for the family (MA33, MA34) ***As MA15***
Not many facilities in the housing area where he lives (MA51) ***As MA22***

(Home/work/school)

Desires/yearnings

Being afraid and having self-doubt about her desire to continue her education (NA35, NA43, NA52, NA53) ***As NA16***
Trying hard to regain her previous self-capacity (NA26) ***As NA17***
Aspire to be a superwoman with the intent to do something new for her business (LF12, LF34) ***As LF9***
She wants her desires and needs to be met and respected by her parents (NN23) ***As NN3***
Needs medication that does not cause excessive sedation (KH41, KH42, KH43) ***As KH19***
Prefers simple living to have less worry and help improve illness condition (KH51) ***As KH27***

Believes that doctors should provide counselling and tips about managing bipolar disorder instead of just using medication (MA43) ***As MA14***
Need money for illness treatment due to expensive medication (SS41, SS68) ***As SS18***
Need to improve herself (S43) ***As SS23***
Need to reduce social anxiety and to have the ability to escape from a narcissist or a toxic person (SS66, SS71) ***As SS24***

(Desires/yearnings)

Life stressors/limitations

Money is one cause of stress in the family (NA40) ***As NA19***
Being careful with spending money to avoid stress (NA41) ***As NA20***
Having a perfectionist trait causes difficulty accepting sudden, unexpected plan changes (NA8) ***As NA23***
Brother's debts and sister's cancer have impacted his life (MI22) ***As MI11***
Feeling sad when his parents ask him for money when he does not have enough (MI23) ***As MI12***
Reluctant to go for a new job interview due to previous unpleasant experience with anxiety (MI18) ***As MI15***
Emotional dysregulation and difficulty making decisions despite being at a mature age (J6, J16) ***As J14***
Being unable to care for her family and business at the same time (LF32) ***As LF8***
Her children and domestic helper cause her stress (LF5) ***As LF16***
Seldom go out due to transportation issues, although going out is a form of stress relief (NN8, NN9) ***As NN9***
Not being able to multitask (KH8) ***As KH22***
Not able to do aerobic exercise due to leg pain and finding it difficult to wake early (SP6, SP10) ***As SP3***
Limited ability to deal with stress as life stressors are reasons for illness relapses (SP55, SP59) ***As SP22***
Difficulty walking from the house to an uphill bus stop due to weak legs (SP49) ***As SP26***
Feeling stressed and seldom staying at home because of limited siblings' support with no proper communication and interaction from them (MA21, MA22, MA 40, MA46, MA47) ***As MA6***
Neighbours with negative attitudes and a tendency to ask about personal matters cause him stress (MA41, MA42) ***As MA7***
Having difficulty sleeping and experiencing stress when spending too much time on social media (MA18) ***As MA17***
Brother-in-law's passing left a big impact on her as he had helped her in business and taken care of her sick cats (SS20, SS21) ***As SS7***
Keeping the issue in mind when being triggered (SS34) ***As SS28***

(Stressors/limitations)

Emotional/intellectual/learning strategies

Being aware of illness relapse if letting go of medication (CL50) ***As CL2***
Doing self-reflection helps her let go of negative feelings and forgive the employer (CL31, CL32, CL33, CL54, CL55) ***As CL17***
Not bothering about the long waiting time after rationalising it to be due to the staff's slow work pace (CL43) ***As CL19***

Selective focussing at home and work (CL48) ***As CL22***
Being ready with courage for potential stressful events (ML9, ML10) ***As ML7***
Being intentional about overcoming life stress with courage and staying calm without thinking too much (ML1, ML7, ML13, ML14, ML15) ***As ML8***
Awareness about the need to overcome emotional problems despite being helped by medication (J18) ***As J17***
Learn about being optimistic, communication and emotional control (WJ13, WJ15, WJ16) ***As WJ9***
Being aware of his own emotions and requesting others to control their behaviour (WJ17) ***As WJ11***
Being aware of his inability to make important decisions during poor mood (WJ24) ***As WJ12***
Doing what he can to stay positive by focussing on his objectives, looking out for opportunities, and avoiding distractions (WJ18, WJ19, WJ29) ***As WJ14***
Learning from others' experiences (WJ30) ***As WJ16***
Learning new knowledge to improve self and personal outlook and to share with others (LF3, LF25, LF28, LF38) ***As LF10***
Taking advantage of the fact that people are focussing on health, and fewer women practice Chinese medicine by learning to do that (LF24, LF35) ***As LF11***
Encouraging self by being a wealthy and successful person to give her daughter the best and to make her mother happy (LF8, LF19, LF31) ***As LF15***
Learning to see an issue from another perspective (ZP8) ***As ZP11***
Realising that people with similar conditions understand each other better (KH33) ***As KH5***
Increased illness awareness through friendship with people of similar conditions and through involvement from their families (KH30, KH32) ***As KH13***
Awareness that something is not right when the mood becomes high and irritable with its disturbing features (KH49, KH50) ***As KH16***
Focussing and doing things which he likes (KH47) ***As KH26***
Awareness of the importance of exercise for him as it helps improve his mood (WP20, WP40) ***As WP8***
Trying to identify and deal with own problems (SA30) ***As SA26***
Awareness of the importance of exercise for her (SP51) ***As SP1***
Consoling self when disappointed with self (SP37) ***As SP23***
Speaking out and asking for help when there are issues or being unwell (SP43, SP45) ***As SP25***
Being aware that sleep quality determines the occurrence of stress (MA44) ***As MA18***
Taking deep breaths to self-calm (MA2) ***As MA19***
Being aware of her responsibility for her illness and treatment (SS50) ***As SS19***
Find ways to calm herself (SS22) ***As SS21***
Learn about letting certain things go (SS33) ***As SS22***
Changing perceptions about how money is spent and seeing health is more important now as she has not been happy despite having a successful business (SS69, SS70) ***As SS25***

(Emotional/intellectual/learning strategies)

Social media

Reading on social media not to disclose sensitive personal information to colleagues (MI16) **(Exosystem)** ***As MI17***
Using the Internet to learn, listen to music, and watch movies (ZP18, ZP19) ***As ZP9***

Expressing self through writing and discreet sharing on Facebook but avoiding and temporarily deactivating it when unwell to avoid sharing emotionally driven information and to prevent self-embarrassment (SA24, SA25, SA26) ***As SA14***
Doing personal research on the Internet, reading magazines, and understanding from others about his medication (MA26) ***As MA12***

(Social media)

Spiritual/religious beliefs/practices (-related others)

Going to the temple to pray and seeking advice and guidance from shamans (ZP23, ZP24, ZP25) ***As ZP8***
Regularly attending religious meetings and being encouraged in the meetings to communicate with others (KH3, KH4, KH56) ***As KH1***
Seeing illness and supporting each other from a religious perspective (KH31) ***As KH2***
The church has been supportive despite not working there and provides monthly allowances for her and her husband (SP24) ***As SP10***
Using God's Word and Christian worship songs to encourage self when her mood is low with pessimistic thoughts (SP14, SP15) ***As SP15***
Involvement of the church in her life has helped her and in turn she helps to serve the people in the church (SP25, SP26) ***As SP16***
Observing prayer routines, performing religious duties, and saying God's name and prayers to relieve the burden and feel confident (MA1, MA6, MA7, MA12) ***As MA1***
Going to the nearby mosque to pray, talk to friends about religious lessons, and when stressed, as it is perceived to be calmer there than at home (MA9, MA15, MA16, MA35, MA48) ***As MA2***
Drinking and bathing into religious water when anxious or stressed (MA13, MA14) ***As MA3***

(Spiritual/religious beliefs/practices)

Appendix 9. Merging of Codes

Final codes
(Illness-related experiences)
Regularly taking medication helps feel better and improves life (CL3, CL4, CL11, CL24) ***As CL 1***
Experiencing **medication side effects**, i.e., slower responses and sleepiness, affecting personal and work activities (C22, C23, C38) ***As CL3***
Discussing with the doctor about the **medication issue** (CL25) ***AS CL4***
Workplace influences **selective disclosure with colleagues about mental health conditions** due to **concerns about misperceptions from others** (CL26, CL27, CL28, CL30, CL34, CL35, CL36) ***As CL16***
Long waiting hours to receive treatment and **limited vehicle parking space at the treatment centre** (CL42, CL45, CL47, CL57) ***As CL18***
Limited health awareness during illness (CL1, CL46) ***As CL20***
Negative perceptions about mental illness from her family (NA13, NA14) ***As NA4***
Selective sharing about mental health condition with her friends as **not wanting to disturb the others** (NA24) ***As NA5***
Disclosing her mental health illness to her family (NA16) ***As NA7***
Experiencing **medication side effects and issues** (NA1, NA3) ***AS NA8***
Taking **medication makes things alright** (NA18) ***As NA9***
Mental health support teams from the psychiatrist, psychologist, and occupational therapist **help address her different treatment needs**, i.e., medication, life issues advice, and relaxation (NA6, NA7, NA11, NA22, NA45, NA47, NA51) ***As NA10***
Different levels of competency and unhelpful approaches from medical professionals who attended her for mental health issues (NA9, NA10, NA21, NA22, NA46, NA50) ***As NA11***
Asking her **doctor to explain her mental health condition to her family** (NA48) ***As NA12***
Not disclosing mental health condition with colleagues (NA28) ***As NA 15***
Not disclosing mental health conditions to family, housemates, and colleagues as **not wanting to make them worry, avoid them from asking too much, and worry that the colleagues might perceive him as pretending and not working hard** (MI4, MI8, MI26, MI17) ***As MI1***
Not disclosing about bipolar disorder in the workplace (MI15) ***As MI2***
Disclosing mental health condition to the family after the **family discovers and asks about his medication** (MI7, MI25) ***As MI3***
Difficulty controlling self when in mania (MI1) ***As MI13***
Taking **medication improves his anxiety and work performance** (MI13) ***As MI14***
No transportation issue to the hospital for treatment (MI29) ***As MI16***
Not sharing personal problems with others after her **doctor's advice to prevent others from laughing at her** (ML4) ***As ML9***
Aunt looks after her medication intake (J3) ***As J2***
Received **advice from the counsellor** (J29) ***As J3***
Talking to a counsellor regularly to cope with emotional issues (J18) ***As J12***
Difficulty coping with illness at the beginning of illness (J27) ***As J15***
Diligent medication intake (J17) ***As J16***
The **positive OT environment helps her** focus on the activity and not think about her problems (NN15, NN16) ***As NN8***

No problem going for regular monthly treatment at the clinic as she is **sent there by her parents** (NN19, NN20) ***As NN11***
Experiencing **sedation with medication** (NN18) ***As NN16***
Selective disclosure of mental health conditions to friends and colleagues as **not wanting them to worry or think too much about it** (ZP21, ZP22) ***As ZP7***
Selective disclosure of mental health condition only to the **people close to him** (KH23, KH24) ***As KH12***
Limited efficacy of counselling service received (KH44, KH45, KH46) ***As KH15***
Mania is perceived as helping with thinking, self-esteem, confidence, and learning (KH48) ***As KH17***
Medication helps control mood but **experiences sedation and drowsiness** (KH41, KH42) ***As KH18***
Perceived illness condition improves due to many experiences over time (KH52) ***As KH23***
Seeking mental health support when not in a good mood (KH40) ***As KH25***
Taking **medications to help** stabilise emotions and maintain sleep but **experiencing excessive sedation** with it (WP2, WP3, WP6, WP8, WP32) ***As WP2***
Making a complaint to the department after being suggested by a doctor due to repeated **ineffective medication changes**, which resulted in him being unable to work (WP7, WP9, WP10, WP11) ***As WP3***
Treated by friendly doctors at his regular clinic follow-ups (WP12, WP13) ***As WP4***
Speaking up for himself and others about their **treatment needs** (WP36) ***As WP5***
Perceived mania as improved cognition with many ideas and heightened ability (WP29, WP30, WP39) ***As WP12***
Informing his doctor when being unwell due to medication-induced mania (WP27, WP28) ***As WP13***
Selective disclosure of mental health condition to close friends (WP23) ***As WP14***
Stop taking sleeping pills so as not to be dependent on them but **retake them due to concerns** about poor sleep affecting her mood and work (SA28, SA55, SA56, SA58) ***As SA3***
Disclosing mental health conditions at the workplace and **receiving colleagues' support** (SA15, SA16) ***As SA7***
Experiencing **different levels of interest from doctors** in exploring personal problems and not sharing with them if they are not interested (SA32, SA33) ***As SA15***
Doctor's disinterest in conversation and long wait hours but short consultation time affect mood and interest to talk with the doctor (SA34, SA35) ***As SA16***
Refusing doctor's advice for admission (SA53) ***As SA17***
Unsure if the treatment received is correct due to changing diagnosis (SA29) ***As SA18***
Seeking help from a physician for weight management and **listening to the doctor's advice** to stop weight reduction medicine (SA41, SA57) ***As SA19***
Husband makes sure of her medication intake (SP19) ***As SP10***
Being **consistent with medication intake** but with a tendency of **poor adherence when well and aware and seeking early treatment when unwell** (SP3, SP20, SP31, SP56, SP58) ***As SP11***
Requesting the doctor only to increase the medication dosage slowly to get used to it, and worry that the doctor might change the medication and the need to adapt to the new medicine again (SP34, SP41) ***As SP12***
Difficult to communicate with an Indian or a Malay doctor due to the **language barrier and the presence of other doctors and patients in the same room** (SP35, SP40) ***As SP16***
Not difficult coming for treatment (SP62) ***As SP18***

Taking medication as prescribed but feels it has **lost its efficacy**, and stopping medication due to **side effects**, did **not think of being ill** at that time, **not wanting to be dependent** on them (MA25, MA27, MA49) ***As MA9***

Stopping medication upon the advice from others regarding the harmful effects of the medicines on health and **informing the doctor about their side effects** (MA28, MA29) ***As MA10***

Not tell the doctor about his stress unless it is severe and unable to sleep at night as they **tend to focus on medication and do not provide tips** to deal with stress, but **one doctor taught him to take deep breaths when anxious** (MA8, MA30, MA31, MA50) ***As MA11***

Doing personal research on the Internet, reading magazines, and **understanding from others about his medication** (MA26) ***As MA12***

Not difficult going to the hospital (MA32) ***As MA13***

Not understanding bipolar disorder at the beginning of the illness (MA52) ***As MA23***

Some **family members and her mother take her bipolar disorder lightly** (SS29, SS30) ***As SS13***

Attributed **better illness control and improved bipolar disorder** condition due to age and maturity (SS25, SS31, SS32) ***As SS14***

Feeling stressed with **previous doctors with bad attitudes, which made her feel forced to take prescribed medication** until she met the **current doctor, who makes her feel motivated to improve herself** that motivates her to wait until feeling improved before seeing the doctor as she **does not want to disappoint the doctor** (SS37, SS40, SS42, SS44, SS45, SS49) ***As SS16***

Not worry when telling her doctor, who listens to her issues and adjusts her medication accordingly, which helps her become better (SS38, SS46, SS47, SS48) ***As SS20***

(Interpersonal relationships)

The **involvement of her husband and his friends in her physical exercises** (CL9) ***As CL7***

Husband's involvement in providing support and encouragement in her life and treatment (CL2, CL10, CL13, CL14, CL15, CL41, CL44, CL53) ***AS CL8***

Husband's problem at work affects his treatment of her at home (CL37) ***As CL10***

Husband's sharing personal work issues with her at home (CL56) ***As CL11***

Involvement of her **mother-in-law to look after her children** reduces stress in her life (CL12, CL17, CL51) ***AS CL 12***

Mother's involvement in giving life and treatment advice (CL16, CL49) ***As CL13***

The **father's condition and unpleasant behaviour negatively affect her** (NA4, NA5, NA17, NA19, NA 31) ***As NA 1***

Calling her **sister for comfort** after being triggered by her father (NA20) ***As NA2***

Support and involvement of her aunt, friends, and her doctor in providing support and explaining her mental health condition to her family (NA12, NA15, NA23, NA24, NA44) ***As NA3***

Asking colleagues for work advice (NA29) ***As NA15***

Meeting and interacting with people around her with similar mental health issues (NA36, NA42) ***As NA19***

Close contact with his partner who provides constant accompaniment, care, and concern (MI5, MI6) ***As MI4***

Improved relationship with his parents due to their changing behaviour by providing equal treatment among him and other siblings over the years (MI9, MI10, MI27) ***As MI5***

Meeting up and **making friends with strangers** as they are friendlier (MI11, MI12) ***As MI6***

Not close to neighbours due to previous unpleasant history with them (MI28) ***As MI7***

Partner's regular contact and accompaniment to the hospital (MI20, MI21) ***As MI8***
The **work supervisor understands** his anxiety and **arranges night shifts** for him (MI14) ***As MI9***
Playing with her children (ML16) ***As ML4***
Talking to her father or her son as a way to deal with life-related stress or problems (ML6, ML18) ***As ML6***
Regularly **shares her problems with her aunt, her cousins, and friends** at work (J4, J5, J7, J8, J12, J13, J14, J15, J28) ***As J1***
Eating out with his housemate (WJ27) ***As WJ4***
Doing **exercise with a housemate** (WJ8) ***As WJ5***
Continuous **interactions without carrying any prejudice with people of different cultures** help improve relationships (WJ9, WJ28) ***As WJ10***
Her husband's friends influence him to **distrust and suspect her of an affair and discourage her from advancing in her career** (LF9, LF13, LF33, LF36, LF37) ***As LF1***
Husband cares for her when unwell but seldom available to look after the family and **scolds her when he's in a bad mood** or when she asks him money to pay the household bills (LF6, LF16, LF20, LF21) ***As LF3***
Husband prefers wife not to work and to accompany him to drink with his friends (LF29) ***As LF6***
Receiving her **mother's and sibling's encouragement and support** (LF22, LF23) ***As LF12***
Requesting her **mother to stay and help** her around (LF7) ***As LF13***
Sharing problems with a close friend and receiving advice from her (L14) ***As LF14***
Meeting outside people gives her a sense of acknowledgement and agreement from others (LF27) ***As LF18***
Frequent **arguments with family due to disagreement and different opinions**, and needing to submit to her parents' wishes all the time (NN2, NN3) ***As NN1***
The **father takes things lightly and is critical, the mother nags a lot,** and **feeling excluded from the family** cause her not to request help from the family (NN4, NN5, NN24) ***As NN2***
Share personal problems with friends but not ask for any help (NN25, NN26) ***As NN5***
Sharing life issues and spending **time together with family and friends** who provide encouragement, support, and advice (ZP1, ZP4, ZP5, ZP6, ZP7, ZP9, ZP10, ZP13) ***As ZP1***
Developing **close relationships and receiving help from his mother, relatives, and friends** with the sharing among family members of his condition (KH2, KH6, KH7, KH25, KH26, KH34) ***As KH3***
Mutual support, encouragement, and counselling for those with similar issues (KH5, KH28, KH35, KH57) ***As KH4***
Supporting a friend with a similar condition by alerting the friend's family when the friend is unwell (KH29) ***As KH6***
Going out for **social activities with supportive colleagues** (KH10, KH11) ***As KH8***
Travelling with the family to eat (KH38) ***As KH21***
Talking to others and getting their approval motivates him (KH16) ***As KH24***
Good relationships with siblings and uncles due to their unconditional love and forgiveness of his past mistakes (WP24, WP25, WP26) ***As WP10***
Not close with wife and children (WP38) ***As WP11***
Talks to his friends who give him advice when his mood is bad (WP22) ***As WP15***
Limiting interactions with colleagues at the workplace initially but later **found them to be helpful** (SA50, SA51) ***As SA5***
Joining colleagues in outdoor physical exercises (SA14) ***As SA6***
Seeking matron's help when experiencing work problems (SA17) ***As SA9***

Returning to hometown to **be with parents and family** due to feeling lonely at home (SA10, SA11, SA47) ***As SA11***
Being with siblings and friends when unwell (SA12, SA13, SA27, SA49) ***As SA12***
Limiting social circle with no other friends outside work and only interacting with familiar people due to a **history of being judged by unfamiliar people** (SA20, SA21, SA22, SA52) ***As SA12***
Joining friends for an aerobic dance in a public park (SP4, SP5, SP7) ***As SP3***
Being with friends for regular light exercises at the park (SP8) ***As SP5***
Talking and **sharing life issues with the church pastor and her husband** (SP2, SP17) ***As SP8***
Husband takes care of her, accompanies her, and drives her around, e.g., to the hospital, visiting the elderly, and shopping (SP18, SP21, SP28, SP38, SP61) ***As SP9***
Telling the pastor, who listens, understands, prays, and provides emotional support when she's unwell (SP22, SP52) ***As SP10***
Limited interactions with younger counterparts in church neighbours have resulted in very few close friends and difficulty asking for help when needed (SP16, SP48) ***As SP11***
Encouraging her husband who has depression (SP53) ***As SP21***
Looking after herself to be well and **care for her husband, along with mutual care** (SP32, SP33) ***As SP22***
Being in nature **doing physical exercises with friends** helps with relaxation and improves sleep (SP47) ***As SP27***
Sharing problems with religious teacher who gives advice on what to do (MA10, MA11) ***As MA4***
Being close to his parents, and his father frequently gives him advice and buy him supplements and good food for the family (MA17, MA19, MA20, MA24) ***As MA5***
Limited siblings' support with no proper communication and interaction from them (MA21, MA46, MA47) ***As MA7***
Family support is important to overcome bipolar disorder (MA45) ***As MA8***
Meeting friends or doing some work (MA4) ***As MA21***
Learning to **cook for self and family** from watching cooking programmes (SS59) ***As SS3***
Sharing interests, experiences, and life issues with her sister, who has helped her to avoid self-injurious behaviour and allowed her to continue living (SS13, SS14, SS16, SS17, SS18, SS19) ***As SS6***
Drawing a boundary on employer-employee relationship with **no close friends and limited friendship experience** (SS61, SS62, SS63) ***As SS8***
Venting out to her father and using her sister's help to make her father understand bipolar disorder and **both provide support emotionally and financially** (SS11, SS15, SS24) ***As SS9***
Not receiving close support from other siblings and no good relationship outside the family circle (SP23, SS65) ***As SS10***
Strained relationship with her mother due to the mother's preferential treatment of her children and the mother's OCD which has made the mother not keen on bonding with her (SS26, SS27) ***As SS11***
The **mother does not like her bringing friends home** (SS64) ***As SS13***
Being **responsible for self and parents** (SS51) ***As SS27***

(Physical strategies)

Doing **regular physical exercises** (CL6, CL7) ***As CL5***
Practices **regular sleep pattern** (CL5) ***As CL21***

Keeping herself busy by being active at work and doing something helps prevent overthinking and feeling depressed (NA2, NA25, NA30) ***As NA12***
Avoiding those whom she knew and those asking her personal questions (NA37, NA39) ***As NA20***
Likes **going to the public library** and prefers public transportation (NA33, NA38) ***As NA21***
Likes jogging, music, trekking, travelling, and food hunting (NA32, NA34) ***As NA22***
Going for **regular exercises and sightseeing, and spending time with stray** cats help him relax and improve mood condition (MI2, MI3, MI19, MI24) ***As MI10***
Going to the social club to relax, draw courage, and to feel calm and happy (ML2, ML3, ML5, ML11) ***As ML1***
Going to the club by bus if her father cannot accompany her (ML12) ***As ML2***
Finding things to do (ML8) ***As ML3***
Playing with her phone (ML17) ***As ML5***
Going to the shopping mall within walking distance from her house to shop (J2, J21, J22) ***As J4***
Doing online shopping with her phone when not able to sleep (J19, J20, J30) ***As J5***
Stop **buying books to read** as there is no space to keep them at home (J23, J24) ***As J9***
Doing gardening (J25) ***As J13***
Developing a cooking habit at home to help him relax (WJ4, WJ5, WJ25) ***As WJ1***
Shopping for food and cooking ingredients are not difficult (WJ26) ***As WJ2***
Shopping for food as a relaxing activity (WJ7) ***As WJ3***
Regular **physical exercises** (WJ11) ***As WJ7***
Playing online games to deal with stress (WJ21) ***As WJ6***
Playing online games regularly is like therapy, which helps him relax (WJ3, WJ12, WJ14) ***As WJ8***
Improved communication and performance **at work due to online gaming activity** (WJ20) ***As WJ9***
Taking short breaks or a walk to calm down during mood swings (WJ22, WJ23) ***As WJ13***
Keeping herself occupied and busy by focussing on her career as a way to deal with her stress (LF4, LF10, LF26) ***As LF7***
Using earplugs to help her sleep when the noises made by her husband disturb her sleep (LF15, LF39) ***As LF17***
Feeling good **doing the artwork** after suggested by the OT (NN12, NN13, NN14) ***As NN7***
Using sleep to prevent thinking about her conflicts with other people (NN1) ***As NN14***
Taking a walk outside (ZP3) ***As ZP10***
Cope by **eating preferred food** as it helps to improve mood (KH15, KH39) ***As KH20***
Smoking cigarettes with control to relax from stress, anxiety or worry (WP1, WP4, WP33, WP35) ***As WP1***
Exercise after work depends on time availability and his mood (WP17, WP18, WP19) ***As WP9***
Sleep to help feel better and forget problems for a while (SA1, SA5) ***As SA1***
Sleep when depressed but made some adjustments to allow sleep at night without sleeping pills by **changing and adjusting routine** and engaging in **outdoor physical exercises** (SA7, SA9, SA31) ***As SA2***
Doing night shifts to allow daytime sleep (SA6) ***As SA4***
Being **at work helps** against feeling depressed (SA8) ***As SA6***
Reducing and controlling diet despite liking to eat for weight management and to feel better (SA38, SA42) ***As SA20***
Eating good food outside (SA39) ***As SA21***

Eating out at good places with siblings (S40) ***As SA22***
Binged eating to feel happy (SA43) ***As SA23***
Doing **regular outdoor physical activities and reducing time at home** improve mood and sleep (SA36, SA37, SA44) ***As SA25***
Going for a holiday when not feeling well (SA28) ***As SA27***
Tidying house and doing other things to fill time (SA48) ***As SA29***
Enjoys aerobic exercise with music to manage stress and help her feel relaxed (SP1, SP11, SP50) ***As SP2***
Engaging in **regular physical exercise** (SP9) outside is better than staying at home doing nothing (SP9, SP12) ***As SP6***
Doing exercise at home with YouTube when can't do it outside (SP13) ***As SP7***
Forcing self to **exercise** during low motivation (SP36) ***As SP22***
Work helps his thinking, allows normal living, maintaining health, earning money, and providing for the family (MA33, MA34) ***As MA15***
Doing **regular physical exercises** (MA5, MA38) ***As MA16***
Busying self with activities (MA3) ***As MA21***
Spending time **playing with pets and feeding the stray cats and dogs** make her feel loved and appreciated (SS1, SS2, SS9) ***As SS1***
Use **driving and listening to songs/music in the car** to deal with stress and as an escape from home (SS6, SS7, SS8, SS54, SS55) ***As SS4***
Driving out, travelling, and going shopping and car wash is like therapy for her (SS56, SS60) ***As SS5***
Using sleep to stop her from thinking a lot (SS35, SS36) ***As SS15***
Buying something useful for the kitchen helps her cope (SS57, SS58) ***As SS20***

(Surrounding environment)

The **availability of the badminton court** for playing badminton (CL8) ***As CL6***
A tendency for **negative thinking and worry at home** and about the children (CL20, CL21, CL52) ***As CL14***
Going out to work outside to prevent **boredom and negative thoughts at home** (CL18, CL19, CL29) ***As CL15***
Being a teacher gives her **a sense of accomplishment** (NA27) ***As NA13***
Transportation system changes have caused her **difficulty travelling to work** (J10) ***As J6***
Work-related issues have contributed to her stopping work (J9) ***As J7***
Quiet and **safe housing environment** (J26, J31) ***As J10***
Doing physical **exercises at a gym facility in the housing area** (WJ10) ***As WJ6***
Not difficult to access **nearby facilities at the housing area** (NN27) ***As NN10***
Staying back to work after studies and **avoiding home due to conflicts** with parents (NN21) ***As NN12***
Resign from work due to problems with colleagues (NN22) ***As NN13***
The availability of **mental health support services in the college** (ZP27) ***As ZP2***
Joining and **helping in college clubs** and mental health campaigns and meeting with people with similar interests (ZP15, ZP16, ZP17) ***As ZP3***
Conducive study and cultural environment in college (ZP14) ***As ZP4***
Good **relationship with employer and work colleagues** (ZP20, ZP29) ***As ZP6***
Staying at home when not studying (ZP26) ***As ZP12***
Flexible working hours and sharing the workload with colleagues allow sufficient rest (KH18, KH21, KH22, KH55) ***As KH9***
Pleasant work environment without toxic politics involved (KH17) ***As KH10***

Better job management when working together with another colleague and **having a good relationship** with the employer (WP15, WP16) ***As WP7***
Good air quality in the **housing area** (WP21) ***As WP17***
No workplace discrimination or unequal work opportunities (SA18, SA19) ***As SA8***
Stopping regular work for volunteer work as being unable to withstand stress and doing what she is capable of, like visiting the elderly in nursing homes, makes her feel useful and worthy with no one gives her stress (SP23, SP27, SP29, SP30, SP54) ***As SP17***
Living in a **high-rise building is perceived as not suitable** due to suicidal thoughts when unwell (SP42) ***As SP24***
Physical exercises at a natural park and the housing area help relieve stress (MA37, MA39) ***As MA17***
Not many facilities in the housing area where he lives (MA51) ***As MA23***

(Hopes and desires)

Being afraid and having self-doubt about **her desire to continue her education** (NA35, NA43, NA52, NA53) ***As NA16***
Trying hard to **regain her previous self-capacity** (NA26) ***As NA17***
Aspire to be a superwoman with the intent to do **something new for her business** (LF12, LF34) ***As LF9***
She wants her **desires and needs to be met and respected** by her parents (NN23) ***As NN3***
Needs **medication that does not cause excessive sedation** (KH41, KH42, KH43) ***As KH19***
Prefers **simple living** to have less worry and help improve illness condition (KH51) ***As KH27***
Hoping to talk privately with a Chinese doctor in a suitable treatment environment (SP39, SP57) ***As SP17***
Hoping that she could care for herself and her husband (SP63) ***As SP24***
Believes that **doctors should provide counselling and tips** about managing bipolar disorder instead of just using medication (MA43) ***As MA14***
Needing a consultant's advice (SS39) ***As SS19***
Needs **money for illness treatment** due to expensive medication (SS41, SS68) ***As SS21***
Needs to **improve herself** (S43) ***As SS26***
Needs to **reduce social anxiety** and to have the ability to **escape from a narcissist or a toxic person** (SS66, SS71) ***As SS27***

(Life stressors)

Money is one cause of stress in the family (NA40) ***As NA19***
Having a **perfectionist trait** causes difficulty accepting sudden, unexpected plan changes (NA8) ***As NA23***
Brother's debts and sister's cancer have impacted his life (MI22) ***As MI11***
Feeling sad when his parents ask him for money when he **does not have enough** (MI23) ***As MI12***
Reluctant to go for a new job interview due to previous unpleasant **experience with anxiety** (MI18) ***As MI15***
Difficulty travelling to work due to ageing (J11) ***As J8***
Emotional dysregulation and difficulty making decisions despite being at a mature age (J6, J16) ***As J14***
Being unable to care for her family and business at the same time (LF32) ***As LF8***
Her **children and domestic helper** cause her stress (LF5) ***As LF16***

Feeling **uncomfortable sharing her problems as she worries that others might be uncomfortable or judge** her for that (NN6, NN7) ***As NN4***
Seldom go out due to **transportation issues**, although going out is a form of stress relief (NN8, NN9) ***As NN9***
Feeling **anxious around people due to her worry that she might offend others and vice versa** (NN17) ***As NN15***
Stressed due to **busy and heavy workload** and limited time to rest (KH9, KH12, KH13, KH14, KH20, KH53) ***As KH7***
Not being able to multitask (KH8) ***As KH22***
Strenuous work results in stress, tiredness, and trouble sleeping (WP14, WP31, WP34, WP37) ***As WP6***
Not able to do aerobic exercise due to **leg pain and finding it difficult to wake** early (SP6, SP10) ***As SP3***
Husband's condition causes her stress and affects her mood (SP44, SP46) ***As SP22***
Limited ability to deal with stress as life stressors are reasons for illness relapses (SP55, SP59) ***As SP28***
Difficulty walking from the house to an uphill bus stop due to **weak legs** (SP49) ***As SP32***
Feeling stressed and seldom staying at home because of **limited siblings' support** (MA22, MA40) ***As MA6***
Neighbours with negative attitudes and a tendency to ask about personal matters **cause him stress** (MA41, MA42) ***As MA7***
Brother-in-law's passing left a big impact on her as he had helped her in business and taken care of her sick cats (SS20, SS21) ***As SS7***
The **mother keeps stressing her out about her unemployment** (SS28, SS29, SS30) ***As SS14***
Feeling judged by the public causes her to be anxious (SS67) ***As SS28***

(Cognitive/Emotional strategies)

Being **aware of illness relapse** if letting go of medication (CL50) ***As CL2***
Doing **self-reflection** helps her **let go of negative feelings and forgive** the employer (CL31, CL32, CL33, CL54, CL55) ***As CL17***
Ignoring husband's negative attitude (CL39) ***As CL9***
Not bothering about the long waiting time after **rationalising** it to be due to the staff's slow work pace (CL43) ***As CL19***
Selective focussing at home and work (CL48) ***As CL22***
Telling her family that she's not ready for studies (NA49) ***As NA6***
Being careful with spending money to avoid stress (NA41) ***As NA22***
Being **ready with courage** for potentially stressful events (ML9, ML10) ***As ML7***
Being **intentional about overcoming** life stress with courage and **staying calm without thinking too much** (ML1, ML7, ML13, ML14, ML15) ***As ML8***
Awareness about the need to overcome emotional problems despite being helped by medication (J18) ***As J17***
Doing exercise after realising excessive eating will not solve the problem (WJ1, WJ2) ***As WJ7***
Learn about being optimistic, communication and emotional control (WJ13, WJ15, WJ16) ***As WJ9***
Being **aware of his own emotions** and requesting others to control their behaviour (WJ17) ***As WJ11***

Being **aware of his inability** to make important decisions during poor mood (WJ24) ***As WJ12***
Doing what he can to **stay positive by focussing on** his objectives, looking out for opportunities, and avoiding distractions (WJ18, WJ19, WJ29) ***As WJ14***
Learning from others' experiences (WJ30) ***As WJ16***
Staying quiet and being patient with him, or trying to **avoid him** when he's not in a good mood or when she's stressed with him (LF1, LF2, LF17, LF18) ***As LF2***
Building courage with alcohol to **confront her husband and tell him** about disliking joining him for drinks with his friends (LF11, LF30) ***As LF4***
Observing her husband's mood during the day before deciding her next action and **determining to** earn money to repay her husband to avoid his scolding (LF40, LF41) ***As LF5***
Learning new knowledge to improve self and personal outlook and to share with others (LF3, LF25, LF28, LF38) ***As LF10***
Taking advantage of the fact that people are focussing on health, and fewer women practice Chinese medicine by **learning to do** that (LF24, LF35) ***As LF11***
Encouraging herself by being a wealthy and successful person to give her daughter the best and to make her mother happy (LF8, LF19, LF31) ***As LF15***
Learning to see an issue from another perspective (ZP8) ***As ZP11***
Realising that people with similar conditions understand each other better (KH33) ***As KH5***
Use his talking and helping skills at the workplace (KH19) ***As KH11***
Increased **illness awareness** through friendship with people of similar conditions and through involvement from their families (KH30, KH32) ***As KH13***
Awareness that something is not right when the mood becomes high and irritable with its disturbing features (KH49, KH50) ***As KH16***
Focussing and doing things which he likes (KH47) ***As KH26***
Awareness of the importance of exercise for him as it helps improve his mood (WP20, WP40) ***As WP8***
Not mixing with or talking to people who gossip **to avoid being judged** by others (SA23, SA54) ***As SA13***
Trying to **identify and deal** with own problems (SA30) ***As SA26***
Awareness of the importance of exercise for her (SP51) ***As SP1***
Asking her husband to let her leave home for a while to prevent the worsening of her condition (SP60) ***As SP23***
Consoling self when disappointed with self (SP37) ***As SP26***
Speaking out and asking for help when there are issues or being unwell (SP43, SP45) ***As SP28***
Being aware that sleep quality determines the occurrence of stress (MA44) ***As MA18***
Taking deep breaths to **self-calm** (MA2) ***As MA19***
Being careful when talking to her mother to avoid triggering the mother (SS12) ***As SS12***
Being **aware of her responsibility** for her illness and treatment (SS50) ***As SS19***
Find ways to **calm herself** (SS22) ***As SS21***
Learn about letting certain things go (SS33) ***As SS22***
Changing perceptions about how money is spent and seeing health is more important now as she has not been happy despite having a successful business (SS69, SS70) ***As SS25***
Check on others' moods before interacting with them and **adjust interactions accordingly** (SS10, SS67) ***As SS29***
Keeping the issue in mind when being triggered (SS34) ***As SS31***

(Mass/Social media)

Reading on social media not to disclose sensitive personal information (e.g., illness) to colleagues (MI16) ***As MI17***
Listening to music and watching TV programmes or movies as a form of coping (J1) ***As J11***
Listening to podcasts when driving (WJ6) ***As WJ15***
Watching movies and TikTok on her phone prevents her from thinking about her problems (NN 10, NN11) ***As NN6***
Likes **listening to music (songs)** by relating to the meaning of the lyrics and singing (ZP2, ZP11, ZP12, ZP28) ***As ZP5***
Using the **Internet to learn, listen to music, and watch movies** (ZP18, ZP19) ***As ZP9***
Watching mental health educational videos and movies helps him focus at present and prevents rumination (KH36, KH37) ***As KH14***
Listening to music to relax (WP5) ***As WP16***
Expressing self through **writing and discreet sharing on Facebook** but **avoiding and temporarily deactivating it when unwell** to avoid sharing emotionally driven information and to prevent self-embarrassment (SA24, SA25, SA26) ***As SA14***
Regularly watching movies in the cinema to feel better (SA3, SA45, SA46) ***As SA24***
Having **difficulty sleeping and experiencing stress when spending too much time on social media** (MA18) ***As MA17***
Not putting boundaries on what she **watches (e.g., horror movies, cartoons)** helps her release stress and feel peaceful and allows her to understand the life experiences of others (SS3, SS4, SS5, SS52, SS53) ***As SS2***

(Spirituality/Religion)

Going to the temple to **pray and seeking advice and guidance** from shamans (ZP23, ZP24, ZP25) ***As ZP8***
Regularly **attending religious meetings** and being encouraged in the meetings to communicate with others (KH3, KH4, KH56) ***As KH1***
Seeing illness and supporting each other from a **religious perspective** (KH31) ***As KH2***
The **church has been supportive** despite not working there and provides monthly allowances for her and her husband (SP24) ***As SP10***
Using **God's Word and Christian worship songs** to encourage herself when her mood is low with pessimistic thoughts (SP14, SP15) ***As SP15***
Involvement of the church in her life has helped her and in turn she helps to serve the people in the church (SP25, SP26) ***As SP16***
Observing **prayer routines, performing religious duties**, and saying God's name and prayers to relieve the burden and feel confident (MA1, MA6, MA7, MA12) ***As MA1***
Going to the nearby **mosque to pray,** talk to friends about **religious lessons**, and when stressed, as it is perceived to be calmer there than at home (MA9, MA15, MA16, MA35, MA48) ***As MA2***
Drinking and bathing into **religious water** when anxious or stressed (MA13, MA14) ***As MA3***

Appendix 10. Categorical Abstract Description

Final codes	**Initial abstract descriptions**	**Final abstract description**
Illness-related and professional treatment/support ***(Illness experience)*** **Regularly taking medication** helps feel better and improves life (CL3, CL4, CL11, CL24) ***As CL 1*** Experiencing **medication side effects**, i.e., slower responses and sleepiness, affecting personal and work activities (C22, C23, C38) ***As CL3*** Discussing with the doctor about the **medication issue** (CL25) ***AS CL4*** Workplace influences **selective disclosure with colleagues about mental health conditions** due to **concerns about misperceptions from others** (CL26, CL27, CL28, CL30, CL34, CL35, CL36) ***As CL16*** **Long waiting hours** to receive treatment and **limited vehicle parking space at the treatment centre** (CL42, CL45, CL47, CL57) ***As CL18*** **Limited health awareness** during illness (CL1, CL46) ***As CL20*** **Negative perceptions about mental illness from her family** (NA13, NA14) ***As NA4*** **Selective sharing** about mental health condition with her friends as **not wanting to disturb the others** (NA24) ***As NA5*** **Disclosing her mental health illness to her family** (NA16) ***As NA7*** Experiencing **medication side effects and issues** (NA1, NA3) ***AS NA8*** Taking **medication makes things alright** (NA18) ***As NA9*** **Mental health support** teams from the psychiatrist, psychologist, and occupational therapist **help address her different treatment needs**, i.e., medication, life issues advice, and	1) Medication intake improves condition but results in side effects. 2) Illness disclosure is determined by the individual's judgement about the perception of others and their acceptance, and the advice and information from outside sources. 3) Treatment experiences are influenced by the quality and satisfaction of the treatment received, their involvement in the treatment process, the treatment environment, and treatment convenience. 4) Illness is experienced based on the impact it has had on them, their initiatives at managing it, the self and others' perception of the illness, and the level of support they have received from others.	Illness experience is developed from influences from self, others, and the environment.

relaxation (NA6, NA7, NA11, NA22, NA45, NA47, NA51) ***As NA10*** **Different levels of competency and unhelpful approaches from medical professionals** who attended her for mental health issues (NA9, NA10, NA21, NA22, NA46, NA50) ***As NA11*** Asking her **doctor to explain her mental health condition to her family** (NA48) ***As NA12*** **Not disclosing mental health condition** with colleagues (NA28) ***As NA 15*** **Not disclosing mental health conditions** to family, housemates, and colleagues as **not wanting to make them worry, avoid them from asking too much, and worry that the colleagues might perceive him as pretending and not working hard** (MI4, MI8, MI26, MI17) ***As MI1*** **Not disclosing about bipolar disorder** in the workplace (MI15) ***As MI2*** **Disclosing mental health condition** to the family after the **family discovers and asks about his medication** (MI7, MI25) ***As MI3*** **Difficulty controlling self when in mania** (MI1) ***As MI13*** Taking **medication improves his anxiety and work performance** (MI13) ***As MI14*** **No transportation issue to the hospital** for treatment (MI29) ***As MI16*** **Not sharing personal problems** with others after her **doctor's advice to prevent others from laughing at her** (ML4) ***As ML9*** **Aunt looks after her medication intake** (J3) ***As J2*** Received **advice from the counsellor** (J29) ***As J3*** **Talking to a counsellor regularly** to cope with emotional issues (J18) ***As J12***		

Difficulty coping with illness at the beginning of illness (J27) ***As J15*** **Diligent medication intake** (J17) ***As J16*** The **positive OT environment helps her** focus on the activity and not think about her problems (NN15, NN16) ***As NN8*** **No problem going for regular monthly treatment** at the clinic as she is **sent there by her parents** (NN19, NN20) ***As NN11*** Experiencing **sedation with medication** (NN18) ***As NN16*** **Selective disclosure of mental health conditions to friends and colleagues** as **not wanting them to worry or think too much about it** (ZP21, ZP22) ***As ZP7*** **Selective disclosure of mental health** condition only to the **people close to him** (KH23, KH24) ***As KH12*** **Limited efficacy of counselling service** received (KH44, KH45, KH46) ***As KH15*** **Mania is perceived as helping** with thinking, self-esteem, confidence, and learning (KH48) ***As KH17*** **Medication helps control** mood but **experiences sedation and drowsiness** (KH41, KH42) ***As KH18*** **Perceived illness condition improves** due to many experiences over time (KH52) ***As KH23*** **Seeking mental health support** when not in a good mood (KH40) ***As KH25*** Taking **medications to help** stabilise emotions and maintain sleep but **experiencing excessive sedation** with it (WP2, WP3, WP6, WP8, WP32) ***As WP2*** Making a complaint to the department after being suggested by a doctor due to repeated **ineffective medication changes**, which resulted in him being unable to work (WP7, WP9, WP10, WP11) ***As WP3***		

Treated by friendly doctors at his regular clinic follow-ups (WP12, WP13) ***As WP4*** Speaking up for himself and others about their **treatment needs** (WP36) ***As WP5*** **Perceived mania as improved cognition** with many ideas and heightened ability (WP29, WP30, WP39) ***As WP12*** **Informing his doctor when being unwell** due to medication-induced mania (WP27, WP28) ***As WP13*** **Selective disclosure of mental health condition** to close friends (WP23) ***As WP14*** **Stop taking sleeping pills** so as not to be dependent on them but **retake them due to concerns** about poor sleep affecting her mood and work (SA28, SA55, SA56, SA58) ***As SA3*** **Disclosing mental health conditions at the workplace** and **receiving colleagues' support** (SA15, SA16) ***As SA7*** Experiencing **different levels of interest from doctors** in exploring personal problems and not sharing with them if they are not interested (SA32, SA33) ***As SA15*** **Doctor's disinterest in conversation and long wait hours but short consultation time** affect mood and interest to talk with the doctor (SA34, SA35) ***As SA16*** **Refusing doctor's advice** for admission (SA53) ***As SA17*** **Unsure if the treatment received is correct** due to changing diagnosis (SA29) ***As SA18*** **Seeking help from a physician** for weight management and **listening to the doctor's advice** to stop weight reduction medicine (SA41, SA57) ***As SA19*** **Husband makes sure of her medication intake** (SP19) ***As SP10*** Being **consistent with medication intake** but with a tendency of **poor adherence when well and aware**		

and seeking early treatment when unwell (SP3, SP20, SP31, SP56, SP58) ***As SP11*** **Requesting the doctor only to increase the medication** dosage slowly to get used to it, and worry that the doctor might change the medication and the need to adapt to the new medicine again (SP34, SP41) ***As SP12*** Difficult to communicate with an Indian or a Malay doctor due to the **language barrier and the presence of other doctors and patients in the same room** (SP35, SP40) ***As SP16*** **Not difficult coming for treatment** (SP62) ***As SP18*** Taking medication as prescribed but feels it has **lost its efficacy**, and stopping medication due to **side effects**, did **not think of being ill** at that time, **not wanting to be dependent** on them (MA25, MA27, MA49) ***As MA9*** **Stopping medication** upon the advice from others regarding the harmful effects of the medicines on health and **informing the doctor about their side effects** (MA28, MA29) ***As MA10*** **Not tell the doctor about his stress unless it is severe** and unable to sleep at night as they **tend to focus on medication and do not provide tips** to deal with stress, but **one doctor taught him to take deep breaths when anxious** (MA8, MA30, MA31, MA50) ***As MA11*** **Doing personal research** on the Internet, reading magazines, and **understanding from others about his medication** (MA26) ***As MA12*** **Not difficult going to the hospital** (MA32) ***As MA13*** **Not understanding bipolar disorder** at the beginning of the illness (MA52) ***As MA23***		

Some **family members and her mother take her bipolar disorder lightly** (SS29, SS30) ***As SS13*** Attributed **better illness control and improved bipolar disorder** condition due to age and maturity (SS25, SS31, SS32) ***As SS14*** Feeling stressed with **previous doctors with bad attitudes, which made her feel forced to take prescribed medication** until she met the **current doctor, who makes her feel motivated to improve herself** that motivates her to wait until feeling improved before seeing the doctor as she **does not want to disappoint the doctor** (SS37, SS40, SS42, SS44, SS45, SS49) ***As SS16*** **Not worry when telling her doctor, who listens to her issues and adjusts her medication accordingly,** which helps her become better (SS38, SS46, SS47, SS48) ***As SS20*** (Illness-related and professional treatment/support)		
Family/social supports/relationships/interactions ***(Interpersonal relationship)*** The **involvement of her husband and his friends in her physical exercises** (CL9) ***As CL7*** **Husband's involvement in providing support and encouragement** in her life and treatment (CL2, CL10, CL13, CL14, CL15, CL41, CL44, CL53) ***AS CL8*** **Husband's problem at work affects his treatment of her** at home (CL37) ***As CL10*** **Husband's sharing personal work issues with her** at home (CL56) ***As CL11*** Involvement of her **mother-in-law to look after her children** reduces stress in her life (CL12, CL17, CL51) ***AS CL 12***	1) Asking or receiving support from and/or providing to family, friends, and colleagues. 2) Social interactions or activities with family, friends, housemates, colleagues, strangers, etc. 3) Limited/unsupportive relationships or negative/unpleasant interactional experiences with surrounding people (e.g., family, friends, neighbours) and their dealing with them.	Interactions/ relationships with others are mutual and bidirectional with both positive and negative engagements.

Mother's involvement in giving life and treatment advice (CL16, CL49) ***As CL13*** The **father's condition and unpleasant behaviour negatively affect her** (NA4, NA5, NA17, NA19, NA 31) ***As NA 1*** Calling her **sister for comfort** after being triggered by her father (NA20) ***As NA2*** **Support and involvement of her aunt, friends, and her doctor** in providing support and explaining her mental health condition to her family (NA12, NA15, NA23, NA24, NA44) ***As NA3*** **Asking colleagues** for work advice (NA29) ***As NA15*** **Meeting and interacting with people around her** with similar mental health issues (NA36, NA42) ***As NA19*** **Close contact with his partner** who provides constant accompaniment, care, and concern (MI5, MI6) ***As MI4*** **Improved relationship with his parents** due to their changing behaviour by providing equal treatment among him and other siblings over the years (MI9, MI10, MI27) ***As MI5*** Meeting up and **making friends with strangers** as they are friendlier (MI11, MI12) ***As MI6*** **Not close to neighbours due to previous unpleasant history** with them (MI28) ***As MI7*** **Partner's regular contact** and accompaniment to the hospital (MI20, MI21) ***As MI8*** The **work supervisor understands** his anxiety and **arranges night shifts** for him (MI14) ***As MI9*** **Playing with her children** (ML16) ***As ML4*** **Talking to her father or her** son as a way to deal with life-related stress or problems (ML6, ML18) ***As ML6*** Regularly **shares her problems with her aunt, her cousins, and friends** at		

work (J4, J5, J7, J8, J12, J13, J14, J15, J28) ***As J1*** **Eating out with his housemate** (WJ27) ***As WJ4*** Doing **exercise with a housemate** (WJ8) ***As WJ5*** Continuous **interactions without carrying any prejudice with people of different cultures** help improve relationships (WJ9, WJ28) ***As WJ10*** Her husband's friends influence him to **distrust and suspect her of an affair and discourage her from advancing in her career** (LF9, LF13, LF33, LF36, LF37) ***As LF1*** **Husband cares for her when unwell** but seldom available to look after the family and **scolds her when he's in a bad mood** or when she asks him money to pay the household bills (LF6, LF16, LF20, LF21) ***As LF3*** **Husband prefers wife not to work and to accompany him** to drink with his friends (LF29) ***As LF6*** Receiving her **mother's and sibling's encouragement and support** (LF22, LF23) ***As LF12*** Requesting her **mother to stay and help** her around (LF7) ***As LF13*** **Sharing problems with a close friend** and receiving advice from her (L14) ***As LF14*** **Meeting outside people** gives her a sense of acknowledgement and agreement from others (LF27) ***As LF18*** Frequent **arguments with family due to disagreement and different opinions**, and needing to submit to her parents' wishes all the time (NN2, NN3) ***As NN1*** The **father takes things lightly and is critical, the mother nags a lot,** and **feeling excluded from the family** cause her not to request help from the family (NN4, NN5, NN24) ***As NN2*** **Share personal problems with friends** but not ask for any help (NN25, NN26) ***As NN5***		

Sharing life issues and spending **time together with family and friends** who provide encouragement, support, and advice (ZP1, ZP4, ZP5, ZP6, ZP7, ZP9, ZP10, ZP13) ***As ZP1*** Developing **close relationships and receiving help from his mother, relatives, and friends** with the sharing among family members of his condition (KH2, KH6, KH7, KH25, KH26, KH34) ***As KH3*** **Mutual support, encouragement, and counselling** for those with similar issues (KH5, KH28, KH35, KH57) ***As KH4*** **Supporting a friend** with a similar condition by alerting the friend's family when the friend is unwell (KH29) ***As KH6*** Going out for **social activities with supportive colleagues** (KH10, KH11) ***As KH8*** **Travelling with the family** to eat (KH38) ***As KH21*** **Talking to others** and getting their approval motivates him (KH16) ***As KH24*** **Good relationships with siblings and uncles** due to their unconditional love and forgiveness of his past mistakes (WP24, WP25, WP26) ***As WP10*** **Not close with wife and children** (WP38) ***As WP11*** **Talks to his friends** who give him advice when his mood is bad (WP22) ***As WP15*** Limiting interactions with colleagues at the workplace initially but later **found them to be helpful** (SA50, SA51) ***As SA5*** **Joining colleagues in outdoor physical exercises** (SA14) ***As SA6*** **Seeking matron's help** when experiencing work problems (SA17) ***As SA9*** Returning to hometown to **be with parents and family** due to feeling lonely at home (SA10, SA11, SA47) ***As SA11***		

Being with siblings and friends when unwell (SA12, SA13, SA27, SA49) ***As SA12*** **Limiting social circle with no other friends** outside work and only interacting with familiar people due to a **history of being judged by unfamiliar people** (SA20, SA21, SA22, SA52) ***As SA12*** **Joining friends for an aerobic dance** in a public park (SP4, SP5, SP7) ***As SP3*** **Being with friends for regular light exercises** at the park (SP8) ***As SP5*** Talking and **sharing life issues with the church pastor and her husband** (SP2, SP17) ***As SP8*** **Husband takes care of her, accompanies her,** and drives her around, e.g., to the hospital, visiting the elderly, and shopping (SP18, SP21, SP28, SP38, SP61) ***As SP9*** **Telling the pastor, who listens, understands, prays, and provides emotional support** when she's unwell (SP22, SP52) ***As SP10*** **Limited interactions with younger counterparts** in church neighbours have resulted in very few close friends and difficulty asking for help when needed (SP16, SP48) ***As SP11*** **Encouraging her husband** who has depression (SP53) ***As SP21*** Looking after herself to be well and **care for her husband, along with mutual care** (SP32, SP33) ***As SP22*** Being in nature **doing physical exercises with friends** helps with relaxation and improves sleep (SP47) ***As SP27*** **Sharing problems with religious teacher** who gives advice on what to do (MA10, MA11) ***As MA4*** **Being close to his parents, and his father frequently gives him advice** and buy him supplements and good food for the family (MA17, MA19, MA20, MA24) ***As MA5*** **Limited siblings' support** with no proper communication and interaction		

from them (MA21, MA46, MA47) ***As MA7*** **Family support** is important to overcome bipolar disorder (MA45) ***As MA8*** **Meeting friends** or doing some work (MA4) ***As MA21*** Learning to **cook for self and family** from watching cooking programmes (SS59) ***As SS3*** **Sharing interests, experiences, and life issues with her sister, who has helped her** to avoid self-injurious behaviour and allowed her to continue living (SS13, SS14, SS16, SS17, SS18, SS19) ***As SS6*** Drawing a boundary on employer-employee relationship with **no close friends and limited friendship experience** (SS61, SS62, SS63) ***As SS8*** **Venting out to her father and using her sister's help** to make her father understand bipolar disorder and **both provide support emotionally and financially** (SS11, SS15, SS24) ***As SS9*** **Not receiving close support from other siblings and no good relationship outside** the family circle (SP23, SS65) ***As SS10*** **Strained relationship with her mother** due to the mother's preferential treatment of her children and the mother's OCD which has made the mother not keen on bonding with her (SS26, SS27) ***As SS11*** The **mother does not like her bringing friends home** (SS64) ***As SS13*** Being **responsible for self and parents** (SS51) ***As SS27*** (Family/social supports/relationships/interactions)		
Leisure/recreation/physical strategies ***(Physical activities/strategies)***		Using physical strategies to

Doing **regular physical exercises** (CL6, CL7) ***As CL5*** Practices **regular sleep pattern** (CL5) ***As CL21*** **Keeping herself busy by being active at work and doing something** helps prevent overthinking and feeling depressed (NA2, NA25, NA30) ***As NA12*** **Avoiding those whom she knew** and those asking her personal questions (NA37, NA39) ***As NA20*** Likes **going to the public library** and prefers public transportation (NA33, NA38) ***As NA21*** **Likes jogging, music, trekking, travelling, and food hunting** (NA32, NA34) ***As NA22*** Going for **regular exercises and sightseeing, and spending time with stray** cats help him relax and improve mood condition (MI2, MI3, MI19, MI24) ***As MI10*** **Going to the social club** to relax, draw courage, and to feel calm and happy (ML2, ML3, ML5, ML11) ***As ML1*** **Going to the club** by bus if her father cannot accompany her (ML12) ***As ML2*** **Finding things to do** (ML8) ***As ML3*** **Playing with her phone** (ML17) ***As ML5*** **Going to the shopping mall** within walking distance from her house to shop (J2, J21, J22) ***As J4*** **Doing online shopping** with her phone when not able to sleep (J19, J20, J30) ***As J5*** Stop **buying books to read** as there is no space to keep them at home (J23, J24) ***As J9*** **Listening to music and watching TV** programmes or movies as a form of coping (J1) ***As J11*** **Doing gardening** (J25) ***As J13*** **Developing a cooking habit** at home to help him relax (WJ4, WJ5, WJ25) ***As WJ1***	1) Being active in life and engages in self-care effort. 2) Engaging in leisurely activities to improve mood and functional performance. 3) Using adaptive strategies to manage disturbed emotions or life circumstances.	maintain well-being or deal with difficult life situations.

Shopping for food and cooking ingredients are not difficult (WJ26) ***As WJ2*** **Shopping for food** as a relaxing activity (WJ7) ***As WJ3*** Regular **physical exercises** (WJ11) ***As WJ7*** **Playing online games** to deal with stress (WJ21) ***As WJ6*** **Playing online games** regularly is like therapy, which helps him relax (WJ3, WJ12, WJ14) ***As WJ8*** **Improved** communication and performance **at work due to online gaming activity** (WJ20) ***As WJ9*** **Taking short breaks or a walk** to calm down during mood swings (WJ22, WJ23) ***As WJ13*** **Listening to podcasts** when driving (WJ6) ***As WJ15*** **Keeping herself occupied and busy** by focussing on her career as a way to deal with her stress (LF4, LF10, LF26) ***As LF7*** **Using earplugs to help her sleep** when the noises made by her husband disturb her sleep (LF15, LF39) ***As LF17*** **Watching movies and TikTok** on her phone prevents her from thinking about her problems (NN 10, NN11) ***As NN6*** Feeling good **doing the artwork** after suggested by the OT (NN12, NN13, NN14) ***As NN7*** **Using sleep** to prevent thinking about her conflicts with other people (NN1) ***As NN14*** Likes **listening to music (songs)** by relating to the meaning of the lyrics and singing (ZP2, ZP11, ZP12, ZP28) ***As ZP5*** **Taking a walk outside** (ZP3) ***As ZP10*** **Watching mental health educational videos and movies** helps him focus at present and prevents rumination (KH36, KH37) ***As KH14***		

Cope by **eating preferred food** as it helps to improve mood (KH15, KH39) ***As KH20*** **Smoking cigarettes** with control to relax from stress, anxiety or worry (WP1, WP4, WP33, WP35) ***As WP1*** **Exercise after work** depends on time availability and his mood (WP17, WP18, WP19) ***As WP9*** **Listening to music** to relax (WP5) ***As WP16*** **Sleep** to help feel better and forget problems for a while (SA1, SA5) ***As SA1*** **Sleep** when depressed but made some adjustments to allow sleep at night without sleeping pills by **changing and adjusting routine** and engaging in **outdoor physical exercises** (SA7, SA9, SA31) ***As SA2*** **Doing night shifts to allow** daytime sleep (SA6) ***As SA4*** Being **at work helps** against feeling depressed (SA8) ***As SA6*** **Reducing and controlling diet** despite liking to eat for weight management and to feel better (SA38, SA42) ***As SA20*** **Eating good food** outside (SA39) ***As SA21*** **Eating out at good** places with siblings (S40) ***As SA22*** **Binged eating** to feel happy (SA43) ***As SA23*** **Regularly watching movies** in the cinema to feel better (SA3, SA45, SA46) ***As SA24*** Doing **regular outdoor physical activities and reducing time at home** improve mood and sleep (SA36, SA37, SA44) ***As SA25*** **Going for a holiday** when not feeling well (SA28) ***As SA27*** **Tidying house and doing other things** to fill time (SA48) ***As SA29*** **Enjoys aerobic exercise with music** to manage stress and help her feel relaxed (SP1, SP11, SP50) ***As SP2***		

Engaging in **regular physical exercise** (SP9) outside is better than staying at home doing nothing (SP9, SP12) ***As SP6*** **Doing exercise at home with YouTube** when can't do it outside (SP13) ***As SP7*** Forcing self to **exercise** during low motivation (SP36) ***As SP22*** **Work helps** his thinking, allows normal living, maintaining health, earning money, and providing for the family (MA33, MA34) ***As MA15*** Doing **regular physical exercises** (MA5, MA38) ***As MA16*** **Busying self** with activities (MA3) ***As MA21*** Spending time **playing with pets and feeding the stray cats and dogs** make her feel loved and appreciated (SS1, SS2, SS9) ***As SS1*** Not putting boundaries on what she **watches (e.g., horror movies, cartoons)** helps her release stress and feel peaceful and allows her to understand the life experiences of others (SS3, SS4, SS5, SS52, SS53) ***As SS2*** Use **driving and listening to songs/music in the car** to deal with stress and as an escape from home (SS6, SS7, SS8, SS54, SS55) ***As SS4*** **Driving out, travelling, and going shopping and car wash** is like therapy for her (SS56, SS60) ***As SS5*** **Using sleep** to stop her from thinking a lot (SS35, SS36) ***As SS15*** **Buying something useful** for the kitchen helps her cope (SS57, SS58) ***As SS20*** (Leisure/recreation/physical strategies)		
Home (incl. housing or nearby facilities)/work/school ***(Surrounding/background environment/condition)***	1) Work events, conditions, and environment as a	Surrounding environment/

The **availability of the badminton court** for playing badminton (CL8) ***As CL6*** A tendency for **negative thinking and worry at home** and about the children (CL20, CL21, CL52) ***As CL14*** Going out to work outside to prevent **boredom and negative thoughts at home** (CL18, CL19, CL29) ***As CL15*** Being a teacher gives her **a sense of accomplishment** (NA27) ***As NA13*** Transportation system changes have caused her **difficulty travelling to work** (J10) ***As J6*** **Work-related issues** have contributed to her stopping work (J9) ***As J7*** Quiet and **safe housing environment** (J26, J31) ***As J10*** Doing physical **exercises at a gym facility in the housing area** (WJ10) ***As WJ6*** Not difficult to access **nearby facilities at the housing area** (NN27) ***As NN10*** Staying back to work after studies and **avoiding home due to conflicts** with parents (NN21) ***As NN12*** **Resign from work due to problems** with colleagues (NN22) ***As NN13*** The availability of **mental health support services in the college** (ZP27) ***As ZP2*** Joining and **helping in college clubs** and mental health campaigns and meeting with people with similar interests (ZP15, ZP16, ZP17) ***As ZP3*** **Conducive study and cultural environment in college** (ZP14) ***As ZP4*** Good **relationship with employer and work colleagues** (ZP20, ZP29) ***As ZP6*** **Staying at home** when not studying (ZP26) ***As ZP12*** **Flexible working hours and sharing the workload** with colleagues allow sufficient rest (KH18, KH21, KH22, KH55) ***As KH9***	deciding factor for their experience quality and commitment. 2) Home or housing environment affects their perception and comfort of being there, and their experience of their living activities. 3) Favourable and supportive college environment promotes engagement with social activities in college.	conditions determine life activities and their quality outcomes.

Pleasant work environment without toxic politics involved (KH17) ***As KH10*** **Better job management** when working together with another colleague and **having a good relationship** with the employer (WP15, WP16) ***As WP7*** Good air quality in the **housing area** (WP21) ***As WP17*** **No workplace discrimination** or unequal work opportunities (SA18, SA19) ***As SA8*** **Stopping regular work for volunteer work** as being unable to withstand stress and doing what she is capable of, like visiting the elderly in nursing homes, makes her feel useful and worthy with no one gives her stress (SP23, SP27, SP29, SP30, SP54) ***As SP17*** Living in a **high-rise building is perceived as not suitable** due to suicidal thoughts when unwell (SP42) ***As SP24*** **Physical exercises at a natural park and the housing area** help relieve stress (MA37, MA39) ***As MA17*** **Not many facilities** in the housing area where he lives (MA51) ***As MA23*** Home (incl. housing or nearby facilities)/work/school		
Desires/yearnings ***(Hopes and desires)*** Being afraid and having self-doubt about **her desire to continue her education** (NA35, NA43, NA52, NA53) ***As NA16*** Trying hard to **regain her previous self-capacity** (NA26) ***As NA17*** **Aspire to be a superwoman** with the intent to do **something new for her business** (LF12, LF34) ***As LF9***	1) Desires for improvement in their lives' condition and work's achievement. 2) Hopes for better communication and living experience with others. 3) Need for better mental health treatment efficacy and affordability.	Hopes for better and improved living, work, and treatment experiences.

She wants her **desires and needs to be met and respected** by her parents (NN23) ***As NN3*** Needs **medication that does not cause excessive sedation** (KH41, KH42, KH43) ***As KH19*** Prefers **simple living** to have less worry and help improve illness condition (KH51) ***As KH27*** **Hoping to talk privately with a Chinese doctor in a suitable treatment environment** (SP39, SP57) ***As SP17*** **Hoping that she could care for herself and her husband** (SP63) ***As SP24*** Believes that **doctors should provide counselling and tips** about managing bipolar disorder instead of just using medication (MA43) ***As MA14*** **Needing a consultant's advice** (SS39) ***As SS19*** Needs **money for illness treatment** due to expensive medication (SS41, SS68) ***As SS21*** Needs to **improve herself** (S43) ***As SS26*** Needs to **reduce social anxiety** and to have the ability to **escape from a narcissist or a toxic person** (SS66, SS71) ***As SS27*** (Desires/yearnings)		
Life stressors/limitations ***(Life stressors/limitations)*** **Money** is one cause of stress in the family (NA40) ***As NA19*** Having a **perfectionist trait** causes difficulty accepting sudden, unexpected plan changes (NA8) ***As NA23*** **Brother's debts and sister's cancer** have impacted his life (MI22) ***As MI11*** Feeling sad when his parents ask him for money when he **does not have enough** (MI23) ***As MI12***	1) Personal limitations and restraints causing them stress and impacting their well-being/functioning. 2) Negative issues and attitudes from people around them cause them stress and affected their life. 3) Taxing workload causes stress-related problems.	Stressors' origins are from self, the people around them, and their work.

Reluctant to go for a new job interview due to previous unpleasant **experience with anxiety** (MI18) ***As MI15*** **Difficulty travelling to work due to ageing** (J11) ***As J8*** **Emotional dysregulation** and difficulty making decisions despite being at a mature age (J6, J16) ***As J14*** **Being unable** to care for her family and business at the same time (LF32) ***As LF8*** Her **children and domestic helper** cause her stress (LF5) ***As LF16*** Feeling **uncomfortable sharing her problems as she worries that others might be uncomfortable or judge** her for that (NN6, NN7) ***As NN4*** Seldom go out due to **transportation issues**, although going out is a form of stress relief (NN8, NN9) ***As NN9*** Feeling **anxious around people due to her worry that she might offend others and vice versa** (NN17) ***As NN15*** Stressed due to **busy and heavy workload** and limited time to rest (KH9, KH12, KH13, KH14, KH20, KH53) ***As KH7*** **Not being able** to multitask (KH8) ***As KH22*** **Strenuous work** results in stress, tiredness, and trouble sleeping (WP14, WP31, WP34, WP37) ***As WP6*** **Not able to do** aerobic exercise due to **leg pain and finding it difficult to wake** early (SP6, SP10) ***As SP3*** **Husband's condition causes her stress** and affects her mood (SP44, SP46) ***As SP22*** **Limited ability** to deal with stress as life stressors are reasons for illness relapses (SP55, SP59) ***As SP28*** **Difficulty walking** from the house to an uphill bus stop due to **weak legs** (SP49) ***As SP32*** **Feeling stressed** and seldom staying at home because of **limited siblings' support** (MA22, MA40) ***As MA6***		

Neighbours with negative attitudes and a tendency to ask about personal matters **cause him stress** (MA41, MA42) ***As MA7*** **Brother-in-law's passing** left a big impact on her as he had helped her in business and taken care of her sick cats (SS20, SS21) ***As SS7*** The **mother keeps stressing her out about her unemployment** (SS28, SS29, SS30) ***As SS14*** **Feeling judged** by the public causes her to be anxious (SS67) ***As SS28*** (Stressors/limitations)		
Emotional/intellectual/learning strategies ***(Cognitive/Emotional strategies)*** Being **aware of illness relapse** if letting go of medication (CL50) ***As CL2*** Doing **self-reflection** helps her **let go of negative feelings and forgive** the employer (CL31, CL32, CL33, CL54, CL55) ***As CL17*** **Ignoring husband's** negative attitude (CL39) ***As CL9*** Not bothering about the long waiting time after **rationalising** it to be due to the staff's slow work pace (CL43) ***As CL19*** **Selective focussing** at home and work (CL48) ***As CL22*** **Telling her family that she's not ready** for studies (NA49) ***As NA6*** **Being careful with spending money** to avoid stress (NA41) ***As NA22*** Being **ready with courage** for potentially stressful events (ML9, ML10) ***As ML7*** Being **intentional about overcoming** life stress with courage and **staying calm without thinking too much** (ML1, ML7, ML13, ML14, ML15) ***As ML8*** **Awareness about the need to overcome** emotional problems	1) Multiple awareness in different life areas influence them to take initiatives to improve their conditions and maintain their well-being. 2) Using intellectual and emotional strategies to improve function and manage unpleasant life situations. 3) Learning from others and ways to change and improve self.	Using cognitive or emotional coping strategies for improvement and to maintain well-being.

despite being helped by medication (J18) ***As J17*** **Doing exercise after realising** excessive eating will not solve the problem (WJ1, WJ2) ***As WJ7*** **Learn about being optimistic, communication and emotional control** (WJ13, WJ15, WJ16) ***As WJ9*** Being **aware of his own emotions** and requesting others to control their behaviour (WJ17) ***As WJ11*** Being **aware of his inability** to make important decisions during poor mood (WJ24) ***As WJ12*** Doing what he can to **stay positive by focussing on** his objectives, looking out for opportunities, and avoiding distractions (WJ18, WJ19, WJ29) ***As WJ14*** **Learning from others'** experiences (WJ30) ***As WJ16*** **Staying quiet and being patient** with him, or trying to **avoid him** when he's not in a good mood or when she's stressed with him (LF1, LF2, LF17, LF18) ***As LF2*** **Building courage** with alcohol to **confront her husband and tell him** about disliking joining him for drinks with his friends (LF11, LF30) ***As LF4*** **Observing her husband's mood** during the day before deciding her next action and **determining to** earn money to repay her husband to avoid his scolding (LF40, LF41) ***As LF5*** **Learning new knowledge to improve self** and personal outlook and to share with others (LF3, LF25, LF28, LF38) ***As LF10*** Taking advantage of the fact that people are focussing on health, and fewer women practice Chinese medicine by **learning to do** that (LF24, LF35) ***As LF11*** **Encouraging herself** by being a wealthy and successful person to give her daughter the best and to make her mother happy (LF8, LF19, LF31) ***As LF15***		

Learning to see an issue from another perspective (ZP8) ***As ZP11*** **Realising that people with similar conditions** understand each other better (KH33) ***As KH5*** **Use his talking and helping skills** at the workplace (KH19) ***As KH11*** Increased **illness awareness** through friendship with people of similar conditions and through involvement from their families (KH30, KH32) ***As KH13*** **Awareness that something is not right** when the mood becomes high and irritable with its disturbing features (KH49, KH50) ***As KH16*** **Focussing** and doing things which he likes (KH47) ***As KH26*** **Awareness of the importance of exercise** for him as it helps improve his mood (WP20, WP40) ***As WP8*** Not mixing with or talking to people who gossip **to avoid being judged** by others (SA23, SA54) ***As SA13*** Trying to **identify and deal** with own problems (SA30) ***As SA26*** **Awareness of the importance of exercise** for her (SP51) ***As SP1*** **Asking her husband to let her leave home for a while** to prevent the worsening of her condition (SP60) ***As SP23*** **Consoling self** when disappointed with self (SP37) ***As SP26*** **Speaking out and asking for help** when there are issues or being unwell (SP43, SP45) ***As SP28*** **Being aware that sleep quality** determines the occurrence of stress (MA44) ***As MA18*** Taking deep breaths to **self-calm** (MA2) ***As MA19*** **Being careful when talking to her mother to avoid** triggering the mother (SS12) ***As SS12*** Being **aware of her responsibility** for her illness and treatment (SS50) ***As SS19*** Find ways to **calm herself** (SS22) ***As SS21***		

Learn about letting certain things go (SS33) ***As SS22*** **Changing perceptions** about how money is spent and seeing health is more important now as she has not been happy despite having a successful business (SS69, SS70) ***As SS25*** **Check on others' moods before interacting** with them and **adjust interactions accordingly** (SS10, SS67) ***As SS29*** **Keeping the issue in mind** when being triggered (SS34) ***As SS31*** (Emotional/intellectual/learning strategies)		
Social media ***(Social media influence)*** **Reading on social media not to disclose** sensitive personal information (e.g., illness) to colleagues (MI16) ***As MI17*** Using the **Internet to learn, listen to music, and watch movies** (ZP18, ZP19) ***As ZP9*** Expressing self through **writing and discreet sharing on Facebook** but **avoiding and temporarily deactivating it when unwell** to avoid sharing emotionally driven information and to prevent self-embarrassment (SA24, SA25, SA26) ***As SA14*** Having **difficulty sleeping and experiencing stress when spending too much time on social media** (MA18) ***As MA17*** (Social media)	1) Social media as a source of learning, research, leisure, and personal expression. 2) Excessive social media exposure negatively impacts well-being. 3) Individual initiative in managing their use of social media.	Social media have positive and negative implications, with actions taken to limit its negative impacts.
Spiritual/religious beliefs/practices (-related others) ***(Spiritual/Religion aspect)***	1) Spiritual beliefs and religious practices are pertinent to their	Spiritual/religious beliefs or practices and support help

Going to the temple to **pray and seeking advice and guidance** from shamans (ZP23, ZP24, ZP25) ***As ZP8*** Regularly **attending religious meetings** and being encouraged in the meetings to communicate with others (KH3, KH4, KH56) ***As KH1*** Seeing illness and supporting each other from a **religious perspective** (KH31) ***As KH2*** The **church has been supportive** despite not working there and provides monthly allowances for her and her husband (SP24) ***As SP10*** Using **God's Word and Christian worship songs** to encourage herself when her mood is low with pessimistic thoughts (SP14, SP15) ***As SP15*** **Involvement of the church** in her life has helped her and in turn she helps to serve the people in the church (SP25, SP26) ***As SP16*** Observing **prayer routines, performing religious duties**, and saying God's name and prayers to relieve the burden and feel confident (MA1, MA6, MA7, MA12) ***As MA1*** Going to the nearby **mosque to pray,** talk to friends about **religious lessons**, and when stressed, as it is perceived to be calmer there than at home (MA9, MA15, MA16, MA35, MA48) ***As MA2*** Drinking and bathing into **religious water** when anxious or stressed (MA13, MA14) ***As MA3*** (Spiritual/religious beliefs/practices)	mental well-being, from which they draw comfort and strength when feeling unwell. 2) Places of worship allow them to seek spiritual guidance and learn about religious lessons. 3) Religious institutions offer them living support.	maintain well-being.

Appendix 11. One-Mode Network Method

	C1	C2	C3	C4	C5	C6	C7	C8	C9
C1	0	1	1	1	1	1	1	1	1
C2	1	0	1	1	1	1	1	0	1
C3	1	1	0	1	0	1	1	1	1
C4	1	1	1	0	1	1	1	0	1
C5	1	1	0	1	0	1	0	0	0
C6	1	1	1	1	1	0	1	0	0
C7	1	1	1	1	0	1	0	1	0
C8	1	0	1	0	0	0	1	0	0
C9	1	1	1	1	0	0	0	0	0

(1 = there is a relationship between the categories; 0 = there is no relationship between the categories)

Appendix 12. Categorical Connections

Category	Description
Illness experiences (C1)	This category relates to the many aspects of the participants' illness experiences and well-being, such as the impact of the illness and others' attitudes on their illness, illness perception and disclosure, treatment experiences, and so on.
Interpersonal relationships (C2)	This category relates to the nature of the participants' relationships and engagements with the people around them, their impact, and the support they receive.
Physical strategies (C3)	This category relates to the participants' physical or observable strategies to manage their well-being and other living situations.
Surrounding environment (C4)	This category relates to the participants' surrounding environment and the perceived impact on the quality of their well-being or general activities.
Hopes/desires (C5)	This category relates to the participants' hopes and desires for their living experience, such as relationships, work, and treatment.
Stressors (C6)	This category relates to the participants' viewpoints about the sources of stress, which originate from self, others, and their environment.
Cognitive/Emotional strategies (C7)	This category relates to the use of cognitive/emotional strategies to manage life experiences.
Mass/Social media (C8)	This category relates to the role and influence of social media in the participants' lives, including their impacts.
Spirituality/Religion (C9)	This category relates to the role of spirituality/religion in supporting and maintaining the participants' well-being.

Connections

C1- Illness experience

C1 ↔ C2 (Interpersonal relationships)

[The participants' illness experience is influenced by the people they have regular contact with. Good support systems from the people around them allow them to understand and manage their illness better. Family members and friends provide support and monitoring and encourage treatment adherence. The quality of their relationships and influences determines their decisions to disclose or share personal information, including illness and treatment.]

(Codes: CL8, CL12, CL13, NA1, NA2, NA3, NA19, MI4, MI8, MI9, ML6, LF3, KH3, KH4, KH6, WP15, SP8, SP9, SP10, SP27, MA8, SS6, SS9, CL4, CL6, NA4, NA5, NA7, NA10, NA11, NA12, NA15, MI1, MI2, MI3, ML9, J2, J3, J12, NN11, ZP7, KH12, WP3, WP4, WP13, WP14, SA7, SA15, SA16, SA17, SA19, SP10, SP12, SP16, MA10, MA11, SS13, SS16, SS20, SS28)

C1 ↔ C3 (Physical strategies)

[Positive illness experiences are gained through various physical strategies to improve one's mood and well-being, leading to better mental health experiences. The strategy employed ranges from spending time alone to being with others doing various physical activities.]

(Codes: NA12, MI10, ML1, WJ1, WJ3, WJ6, WJ8, WJ13, LF7, NN7, NN14, KH20, WP1, WP9, SA1, SA2, SA6, SA20, SA23, SA25, SA27, SP2, SP22, MA16, SS1, SS4, SS5, SS15, SS20, CL1, NA9, MI14, J16, KH25, WP2, WP3, WP5, WP13, SA3, SP11, MA9, MA10, MA12)

C1 ↔ C4 (Surrounding environment)

[Illness conditions can be prevented or triggered by the participants' surrounding environment. A positive environment helps support the participants' mental health and well-being.]

(Codes: CL14, CL15, ZP2, ZP3, KH9, SP17, SP24, MA17, CL16, CL18, MI2, NN8, SA7, SA16, SP16)

C1 ↔ C5 (Hopes and desires)

[The participants desire better treatment experiences regarding medication and non-medication treatment, treatment environment, and the doctor-patient interaction. They also hope for better communication and living experiences with others.]

(Codes: NA17, KH19, KH27, SP17, SP24, MA14, SS19, SS21, SS26, SS27)

C1 ↔ C6 (Stressors)

[The illness experience can be impacted by various life stressors due to personal limitations or external factors, such as treatment, relationship or other issues. These result in their difficulty managing inner psychological experiences, increasing the tendency for negative illness experiences.]

(Codes: NA23, MI11, MI12, MI15, J14, LF16, NN9, NN15, KH7, WP6, SP22, SP28, MA6, MA7, SS14, CL3, CL18, CL20, NA4, NA8, NA11, MI13, J15, NN16, KH15, KH18, WP2, WP3, SA3, SA15, SA16, SP16, MA11, SS13, SS16)

C1 ↔ C7 (Cognitive/Emotional strategies)

[Positive illness experience is attained through cognitive or emotional strategies relevant to the participants. Being aware of their illness experience allows them to take the initiative to improve their conditions and maintain their well-being.]

(Codes: CL2, CL17, CL19, NA22, ML8, J17, WJ9, WJ11, WJ12, LF2, LF10, KH13, KH16, WP8, SA26, SP23, SP28, MA18, MA19, SS19, SS25, CL4, NA5, MI1, ML9, J12, ZP7, KH12, KH17, WP12, WP14, SA7, SS14, SS16, SS31)

C1 ↔ C8 (Social media)

[Mental health is negatively impacted through excessive and unregulated use of social media. Regulation of its use helps prevent negative effects when used inappropriately or excessively.]

(Codes: J11, SA14, MA17, NN6, KH14, WP16, SA24, SS2)

C1 ↔ C9 (Spirituality/Religion)

[Mental health experiences are enhanced through spiritual and religious practices, from which they draw comfort and strength when unwell.]

(Codes: KH2, SP15, MA1, MA2, MA3)

C2- Interpersonal relationships

C2 ↔ C1 (Illness experience)

[Interpersonal relationships impact the participants' illness experience. Their relationships, which include social interactions with family, friends or colleagues, and their communication with mental health professionals, are one of the determining factors for the quality of their mental health condition.]

(Codes: CL8, CL12, CL13, NA1, NA2, NA3, NA19, MI4, MI8, MI9, ML6, LF3, KH3, KH4, KH6, WP15, SP8, SP9, SP10, SP27, MA8, SS6, SS9, CL4, CL6, NA4, NA5, NA7, NA10, NA11, NA12, NA15, MI1, MI2, MI3, ML9, J2, J3, J12, NN11, ZP7, KH12, WP3, WP4, WP13, WP14, SA7, SA15, SA16, SA17, SA19, SP10, SP12, SP16, MA10, MA11, SS13, SS16, SS20, SS28)

C2 ↔ C3 (Physical strategies)

[Interactions with others allow the participants to engage in social activities and get help or comfort from others. A positive relationship is developed through meaningful interactions, which is empowering and makes them feel good.]

(Codes: NA20, ML2, WJ9, LF17, SA22, CL7, NA19, MI6, ML4, WJ4, WJ5, WJ10, LF18, KH8, KH21, SA6, SA9, SA11, SA12, SP3, SP5, SP22, SP27, MA21, SS3, SS27)

C2 ↔ C4 (Surrounding environment)

[The participants' interactions with others in a given environment influence their perception of the quality of that environment. Good interactions with others allow them to generate positive exchanges with others, which potentially improves their well-being and productivity.]

(Codes: NN12, NN13, ZP3, KH9, WP7, CL10, CL11, NA19, MI7, NN1, NN2, SA5, SA11, SA12, SP3, SP5, SP11, SP27, SS10, SS13)

C2 ↔ C5 (Hopes and desires)

[The outcomes of the relationships cause the participants to desire something better and different than they get. They hope for better communication and living experiences with others.]

(Codes: NN3, SP17, SP24, SS27)

C2 ↔ C6 (Stressors)

[The participants' relationships with others can be a stressor when they do not have a good relationship with them or suboptimal support. The life issues of others can also cause them stress when they are unavoidably involved in the problems of others.]

(Codes: NA19, MI11, MI12, LF8, LF16, NN4, NN15, SP22, MA6, MA7, SS7, SS14, NA1, LF1, LF3, LF6, NN1, NN2, SA12, MA7, SS10, SS11, SS13)

C2 ↔ C7 (Cognitive/Emotional strategies)

[The participants use cognitive or emotional strategies when they are being triggered or disappointed by their relationships with others around them. Doing so allows them to have a better tolerance for others' imperfections. The strategies are also used to help express themselves and deal with others to avoid potential conflicts and to support others with similar problems.]

(Codes: CL17, CL9, NA6, WJ11, WJ16, LF2, LF4, LF5, LF10, LF15, KH11, KH13, SA13, SP23, SS12, SS29, NA2, NA15, ML6, J1, LF13, LF14, NN5, ZP1, KH4, KH24, WP15, SA12, SP8, SP10, MA4, MA5, SS6, SS8, SS9)

C2 ↔ C9 (Spirituality/Religion)

[Relationships established in religious institutions support spiritual, emotional, and practical needs, enabling participants to push through challenging times.]

(Codes: ZP8, KH1, KH2, SP8, SP10, SP16, MA2)

C3- Physical strategies

C3 ↔ C1 (Illness experience)

[Various adaptive physical strategies are used to maintain or improve well-being and to manage disturbed emotions, ensuring positive mental health experiences.]

(Codes: NA12, MI10, ML1, WJ1, WJ3, WJ6, WJ8, WJ13, LF7, NN7, NN14, KH20, WP1, WP9, SA1, SA2, SA6, SA20, SA23, SA25, SA27, SP2, SP22, MA16, SS1, SS4, SS5, SS15, SS20, CL1, NA9, MI14, J16, KH25, WP2, WP3, WP5, WP13, SA3, SP11, MA9, MA10, MA12)

C3 ↔ C2 (Interpersonal relationships)

[Physical strategies involving other people in the participants' lives enhance social cohesion and closeness and increase social confidence. Sports and casual outdoor meetings are examples of such activities adopted by the participants.]

(Codes: NA20, ML2, WJ9, LF17, SA22, CL7, NA19, MI6, ML4, WJ4, WJ5, WJ10, LF18, KH8, KH21, SA6, SA9, SA11, SA12, SP3, SP5, SP22, SP27, MA21, SS3, SS27)

C3 ↔ C4 (Surrounding environment)

[The implementation of some of the physical strategies by the participants depends on the nature of the surrounding environment, i.e., the availability of suitable places or facilities. The nature of the surrounding environment influences the types of strategies used to improve their conditions and well-being.]

(Codes: CL6, CL15, WJ6, NN12, NN13, ZP3, SP17, MA17, NA21, ML1, ML2, J4, J13, ZP10, SA21, SA22, SA25, SP6, SP7, MA16, SS4, SS5)

C3 ↔ C6 (Stressors)

[Physical strategies are used to manage life stresses and to help achieve better well-being experiences.]

(Codes: NA12, NA20, WJ13, LF7, LF17, NN14, WP1, SA1, SA6, SP22, SS4, SS15)

C3 ↔ C7 (Cognitive/emotional strategies)

[Physical strategies are more mindfully practised after realising their importance and relevance to their well-being. Efforts to perform the relevant physical strategy through developing cognitive or emotional awareness.]

(Codes: CL2, WJ7, WJ11, WJ14, LF2, LF4, KH11, KH13, KH26, WP8, SA13, SP1, SP28, SS29, LF7, SP22, SS1)

C3 ↔ C8 (Social media)

[Socia media is a source of learning, communication, and entertainment for the participants.]

(Codes: ZP9, SA14)

C3 ↔ C9 (Spirituality/Religion)

[Physical strategies adopted by the participants in the spiritual and religious aspects include their involvement in religious meetings, activities or practices, which form part of their coping mechanism.]

(Codes: ZP8, KH1, SP16, MA1, MA2, MA3)

C4- Surrounding environment

C4 ↔ C1 (Illness experience)

[The nature of the surrounding environment impacts how the participants perceive their well-being experiences. Hence, their surrounding environment affects the quality and outcome of their illness conditions.]

(Codes: CL14, CL15, ZP2, ZP3, KH9, SP17, SP24, MA17, CL16, CL18, MI2, NN8, SA7, SA16, SP16)

C4 ↔ C2 (Interpersonal relationships)

[The people around the participants influence their perceptions of their environment and interactions. Unpleasant environments are usually attributed to the presence of the people with whom the participants have negative interactions or feel pessimistic. Relationships are also built in places where they gather and socialise.]

(Codes: NN12, NN13, ZP3, KH9, WP7, CL10, CL11, NA19, MI7, NN1, NN2, SA5, SA11, SA12, SP3, SP5, SP11, SP27, SS10, SS13)

C4 ↔ C3 (Physical strategies)

[The surrounding environment determines the types of physical activities or strategies to maintain well-being.]

(Codes: CL6, CL15, WJ6, NN12, NN13, ZP3, SP17, MA17, NA21, ML1, ML2, J4, J13, ZP10, SA21, SA22, SA25, SP6, SP7, MA16, SS4, SS5)

C4 ↔ C5 (Hopes and desires)

[The quality of the participants' surrounding environment determines their want and longing for something that could improve their experiences in that environment, such as the suboptimal treatment environment.]

(Codes: SP17, SS27, MA23)

C4 ↔ C6 (Stressors)

[Unpleasant surrounding environments cause the participants to feel stressed and negatively affect their life quality.]

(Codes: NN9, SP32, MA6, MA7, CL14, CL15, J6, J7, NN12, NN13, SP24, MA23)

C4 ↔ C7 (Cognitive/Emotional strategies)

[The participants use cognitive or emotional strategies to deal with the unpleasant situations in their environment or to enhance their well-being experiences.]

(Codes: CL19, CL22, KH11, SP23)

C4 ↔ C9 (Spirituality/Religion)

[The presence of religious institutions in the community where the participants belong allows them to draw relevant support vital to their well-being.]

(Codes: ZP8, KH1, MA2)

C5- Hopes and desires

C5 ↔ C1 (Illness experience)

[The participants' actual illness experiences are reflected by their hopes and desires to have better treatment experiences and mental health conditions.]

(Codes: NA17, KH19, KH27, SP17, SP24, MA14, SS19, SS21, SS26, SS27)

C5 ↔ C2 (Interpersonal relationships)

[The participants desire more positive interactions and relationships with the people they meet or engage with.]

(Codes: NN3, SP17, SP24, SS27)

C5 ↔ C4 (Surrounding environment)

[The participants desire a more favourable environment to enhance their well-being experiences.]

(Codes: SP17, SS27, MA23)

C5 ↔ C6 (Stressors)

[The participants hope for improved conditions of their stress factors.]

(Codes: NN3, KH19, SS21, SS27)

C6- Stressors

C6 ↔ C1 (Illness experiences)

[Multiple factors related to the participants' illness experiences are related to internal and/or external stressors which impact their well-being. Some of the stressors are illness control, treatment side effects, treatment efficacy, treatment waiting time, treatment environment, and lack of illness understanding from their family.]

(Codes: NA23, MI11, MI12, MI15, J14, LF16, NN9, NN15, KH7, WP6, SP22, SP28, MA6, MA7, SS14, CL3, CL18, CL20, NA4, NA8, NA11, MI13, J15, NN16, KH15, KH18, WP2, WP3, SA3, SA15, SA16, SP16, MA11, SS13, SS16)

C6 ↔ C2 (Interpersonal relationships)

[The participants are stressed when there is a suboptimal interaction or a lack of social support from others. Their family's problems also have become their stress when they are directly or indirectly affected by them.]

(Codes: NA19, MI11, MI12, LF8, LF16, NN4, NN15, SP22, MA6, MA7, SS7, SS14, NA1, LF1, LF3, LF6, NN1, NN2, SA12, MA7, SS10, SS11, SS13)

C6 ↔ C3 (Physical strategies)

[When stressed, the participants will engage in various physical activities to help themselves feel better, such as exercising, cooking, and online gaming.]

(Codes: NA12, NA20, WJ13, LF7, LF17, NN14, WP1, SA1, SA6, SP22, SS4, SS15)

C6 ↔ C4 (Surrounding environment)

[Unpleasant home and work environment, inefficient transportation system, and limited facilities nearby are stressors to the participants.]

(Codes: NN9, SP32, MA6, MA7, CL14, CL15, J6, J7, NN12, NN13, SP24, MA23)

C6 ↔ C5 (Hopes and desires)

[The participants hope for financial stability and their capacity to deal with unpleasant relationships.]

(Codes: NN3, KH19, SS21, SS27)

C6 ↔ C7 (Cognitive/Emotional strategies)

[In stressful situations, cognitive or emotional strategies are used to improve their capacity to manage and handle challenging events more positively.]

(Codes: CL17, CL9, CL19, NA22, ML7, ML8, WJ12, LF2, LF4, KH16, SA13, SA26, SP23, SP26, SP28, SS12)

C7- Cognitive/Emotional strategies

C7 ↔ C1 (Illness experiences)

[The use of cognitive or emotional strategies helps the participants to have a balanced view of their illness and well-being and allows further approaches to manage them positively and limit unpleasant events. These approaches will enable them to monitor signs and symptoms of illness recurrence and to maintain good mental health.]

(Codes: CL2, CL17, CL19, NA22, ML8, J17, WJ9, WJ11, WJ12, LF2, LF10, KH13, KH16, WP8, SA26, SP23, SP28, MA18, MA19, SS19, SS25, CL4, NA5, MI1, ML9, J12, ZP7, KH12, KH17, WP12, WP14, SA7, SS14, SS16, SS31)

C7 ↔ C2 (Interpersonal relationships)

[The cognitive/emotional strategies are used to build social rapport besides enhancing their capacity to deal with difficult situations by sharing their problems or concerns with trusted individuals.]

(Codes: CL17, CL9, NA6, WJ11, WJ16, LF2, LF4, LF5, LF10, LF15, KH11, KH13, SA13, SP23, SS12, SS29, NA2, NA15, ML6, J1, LF13, LF14, NN5, ZP1, KH4, KH24, WP15, SA12, SP8, SP10, MA4, MA5, SS6, SS8, SS9)

C7 ↔ C3 (Physical strategies)

[Cognitive/emotional strategies are used with physical methods to improve the participants' ability to handle unpleasant events or improve their well-being.]

(Codes: CL2, WJ7, WJ11, WJ14, LF2, LF4, KH11, KH13, KH26, WP8, SA13, SP1, SP28, SS29, LF7, SP22, SS1)

C7 ↔ C4 (Surrounding environment)

[Cognitive/emotional strategies are utilised when the participants deem advantageous or beneficial to their well-being in their environment.]

(Codes: CL19, CL22, KH11, SP23)

C7 ↔ C6 (Stressors)

[The participants use cognitive/emotional strategies when dealing with stressful situations related to themselves or others.]

(Codes: CL17, CL9, CL19, NA22, ML7, ML8, WJ12, LF2, LF4, KH16, SA13, SA26, SP23, SP26, SP28, SS12)

C7 ↔ C8 (Social media)

[When social media use is perceived to impact the participants negatively, they take steps to regulate its use.]

(Codes: SA14, MA17, SS2)

C8- Social media

C8 ↔ C1 (Illness experiences)

[Social media impacts mental health through its use. Unregulated use negatively affects the well-being of the participants.]

(Codes: J11, SA14, MA17, NN6, KH14, WP16, SA24, SS2)

C8 ↔ C3 (Physical strategies)

[The participants use social media as a source of learning and to relax.]

(Codes: ZP9, SA14)

C8 ↔ C7 (Cognitive/emotional strategies)

[Social media allows self-expression and other uses. Awareness of when its use has negatively impacted the participants is essential for them to control its use.]

(Codes: SA14, MA17, SS2)

C9- Spirituality/Religion

C9 ↔ C1 (Illness experiences)

[Spiritual and religious aspects are seen as a source from which the participants can draw inspiration and strength.]

(Codes: KH2, SP15, MA1, MA2, MA3)

C9 ↔ C2 (Interpersonal relationships)

[Spiritual and religious support system is enhanced through interactions and relationships with people of similar belief systems.]

(Codes: ZP8, KH1, KH2, SP8, SP10, SP16, MA2)

C9 ↔ C3 (Physical strategies)

[The participants' involvement in spiritual and religious practices to get guidance, learn, and cope with life difficulties to improve their well-being.]

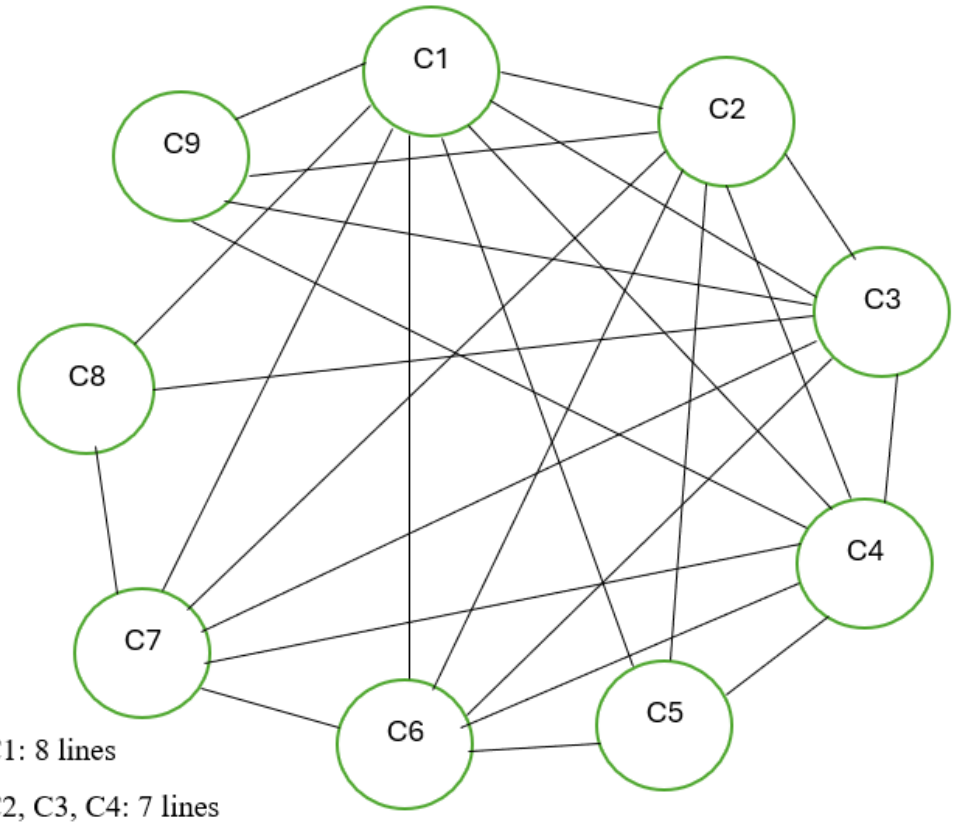
(Codes: ZP8, KH1, SP16, MA1, MA2, MA3)

C9 ↔ C4 (Surrounding environment)

[The presence of religious institutions that the participants can access within their community is helpful for them in drawing spiritual/religious support.]

(Codes: ZP8, KH1, MA2)

Appendix 13. Relational Map of Categorical Connections



C1: 8 lines

C2, C3, C4: 7 lines

C6, C7: 6 lines

C5, C9: 4 lines

C8: 3 lines

Appendix 14. Study Poster (English Version)

Health & Medicine | Lancaster University

We are conducting mental health research to understand the lived experiences of individuals with severe mental illness in self-regulation. Would you like to share your experiences with us?

Your contribution to this study will help develop new knowledge and better treatment programmes focussing on mental illness and self-regulation.

If you agree to participate, you will be given an hour-long time slot to be interviewed. Rest assured that your personal details will be kept confidential and your responses anonymised.

Your participation is strictly voluntary, with no incentive involved. Refreshments will be provided during the interview.

You can contact the researcher of this study for more details or inform your interest in this project.

Contact

Dr Foo Weng Leong

Phone number: (office)

Email: f.leong@lancaster.ac.uk

Appendix 15. Participant Information Sheet (English Version)

Participant Information Sheet

A Community-Focussed Qualitative Study of Lived Experiences of Bipolar Affective Disorder in the Malaysian Population: Understanding Self-Regulation from the Perspective of Social Ecology of Resilience

My name is Foo Weng Leong. I am a psychiatrist. I am also a postgraduate student with the Department of Health Research (Mental Health division) at Lancaster University, United Kingdom. I am conducting a PhD research project titled above. This study will take place in Malaysia, and this part of the project (i.e., interview for data collection) will begin on September 1, 2023, until March 31, 2024.

What is the study about?

This study aims to understand the lived experiences of individuals with severe mental illness in self-regulation. A thorough understanding of this area can allow improved mental health programmes that are more pragmatic and consumer-focussed.

Why have I been approached?

You have been approached because you are eligible to participate in this study project. If you decide to take part in this research, you will be one of approximately 30 other local participants joining.

Do I have to take part?

Your participation is strictly voluntary. It is entirely up to you to decide whether to participate in this study. Rest assured that your decision will not affect your future management or care by the mental health team. If you decide to take part, I will first contact you to set an appointment date, which both of us agree upon. The appointment is expected to happen on a working day between September 1, 2023, and March 31, 2024, when this part of the study project takes place. Generally, the appointment will be set on a day when you are expected to attend to your regular clinic review. This is done so that you do not have to come to the hospital just for the interview's sake unless you agree otherwise. There is no alternative way of conducting this interview (e.g., by telephone). You may choose not to participate if the form of the interview does not suit you at this time.

Who is funding this study?

This is a self-funded study. For your information, there will be no payment of any sort, including reimbursements for your participation in this study. However, light refreshments will be served during the interview.

What will I be asked to do if I take part?

If you decide to participate, you will be required to sit in an interview session with me that lasts about an hour. Before beginning the interview, you will also be asked to sign an informed consent form. The discussion topics during the interview focus on the issues related to your experience in the current psychiatric illness.

Will my data be identifiable?

Your data will be kept confidential, and the interview data will be anonymised. Your data will be kept separately from your interview responses. The audio recording made during the interview will be transferred to a secured folder in a password-protected laptop, which I can only access. The audio recording will then be deleted from the audio recorder. Backup data will be stored in Lancaster University's approved cloud platform (e.g., Microsoft Teams). Once the audio data have been transcribed into written data, the former will be deleted from the laptop while the latter will be backed up in the cloud platform. Once this PhD project is completed and examined, audio recordings will be deleted from the cloud platform. All other data will be transferred to the Lancaster University Publication and Research Electronic Repository (PURE) for storage. The duration of data storage will be up to 10 years upon the completion of the research project. After this period, only the transcribed data will be stored permanently at PURE. These data will not be made publicly accessible as they contain the personal in-depth account of life experiences and therefore, they are not able to be fully anonymised. Publications of the research results will anonymise individual contributions to the study and exclude the personal details of the study participants. All devices used for data storage will be encrypted as per Lancaster University ISS standards.

If anything said during the interview makes me think that you or someone else is at risk of harm or directly involved in illegal activities, I will have to break confidentiality, speak to a staff member about this, and do the needful. If possible, I will tell you if I must do this.

What will happen to the results?

The research results will be analysed, summarised, and reported in a thesis. They may also be submitted to peer-reviewed journals for publication and presented in seminars, scientific meetings or conferences.

Can I withdraw my consent to this study?

You are eligible to withdraw from the study during or after the interview. Should you intend to withdraw after the interview, you will be given two weeks to do so. In that case, your contribution to the study will be removed. However, if your request is made more than two weeks after the interview date, data withdrawal may not be possible if they have been analysed. However, your contribution will be anonymised.

Are there any risks?

There are no risks anticipated by participating in this study. However, if you experience any distress following participation, the on-call psychiatrist will be consulted for further management. You are also encouraged to contact the resources provided at the end of this sheet for further mental health support. For your information, there will be no compensation in any form should any untoward incident happen in relation to your participation in this study project.

Are there any benefits to taking part?

Although you may find participating interesting, it has no direct benefits at present. However, as mentioned above, your participation may benefit the future development of mental health treatment programmes that benefit you and other consumers.

Who has reviewed the project?

This study has been reviewed and approved by the Faculty of Health and Medicine Research Ethics Committee at Lancaster University and the Malaysia Ministry of Health (MoH) Medical Review and Ethics Committee (MREC).

Where can I obtain further information about the study if I need it?

If you have any questions about the study, please contact me as the main researcher of this study.

Researcher:

Dr Foo Weng Leong
Postgraduate student,
Department of Health Research (Mental Health division)
Faculty of Health and Medicine
Lancaster University
Contact number: (office)
Email: f.leong@lancaster.ac.uk

Study supervisors:

Professor Steven Jones
Professor of Clinical Psychology
Co-Director of the Spectrum Centre for Mental Health Research
Lancaster University
Email: s.jones7@lancaster.ac.uk

Professor Fiona Lobban
Professor of Clinical Psychology
Co-Director, Spectrum Centre for Mental Health Research
Lancaster University
Email: f.lobban@lancaster.ac.uk

Complaints

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact:

Medical Research and Ethics Committee (MREC)
Blok A, Kompleks Institut Kesihatan Negara (NIH),
No 1 Jalan Setia Murni U13/52,
Seksyen U13 Bandar Setia Alam,
40170 Shah Alam,
Selangor, Malaysia.
Telephone: +603 – 3362 8205
Email: mrecsec@moh.gov.my

And/Or

Professor Bruce Hollingsworth
Director of Studies, Mental Health
Division of Health Research
Lancaster University
Lancaster
LA1 4YG
Email: b.hollingsworth@lancaster.ac.uk

If you wish to contact someone outside of the PhD in Health Research Doctorate Programme, you may also contact:

Dr Laura Machin
Chair of Faculty of Health and Medicine- Research Ethics Committee
Faculty of Health and Medicine
(Lancaster Medical School)
Lancaster University
Lancaster
LA1 4YG
Email: l.machin@lancaster.ac.uk

Thank you for taking the time to read this information sheet.

Resources in the event of distress

Should you feel distressed either as a result of taking part or in the future, the following resources may be of assistance.

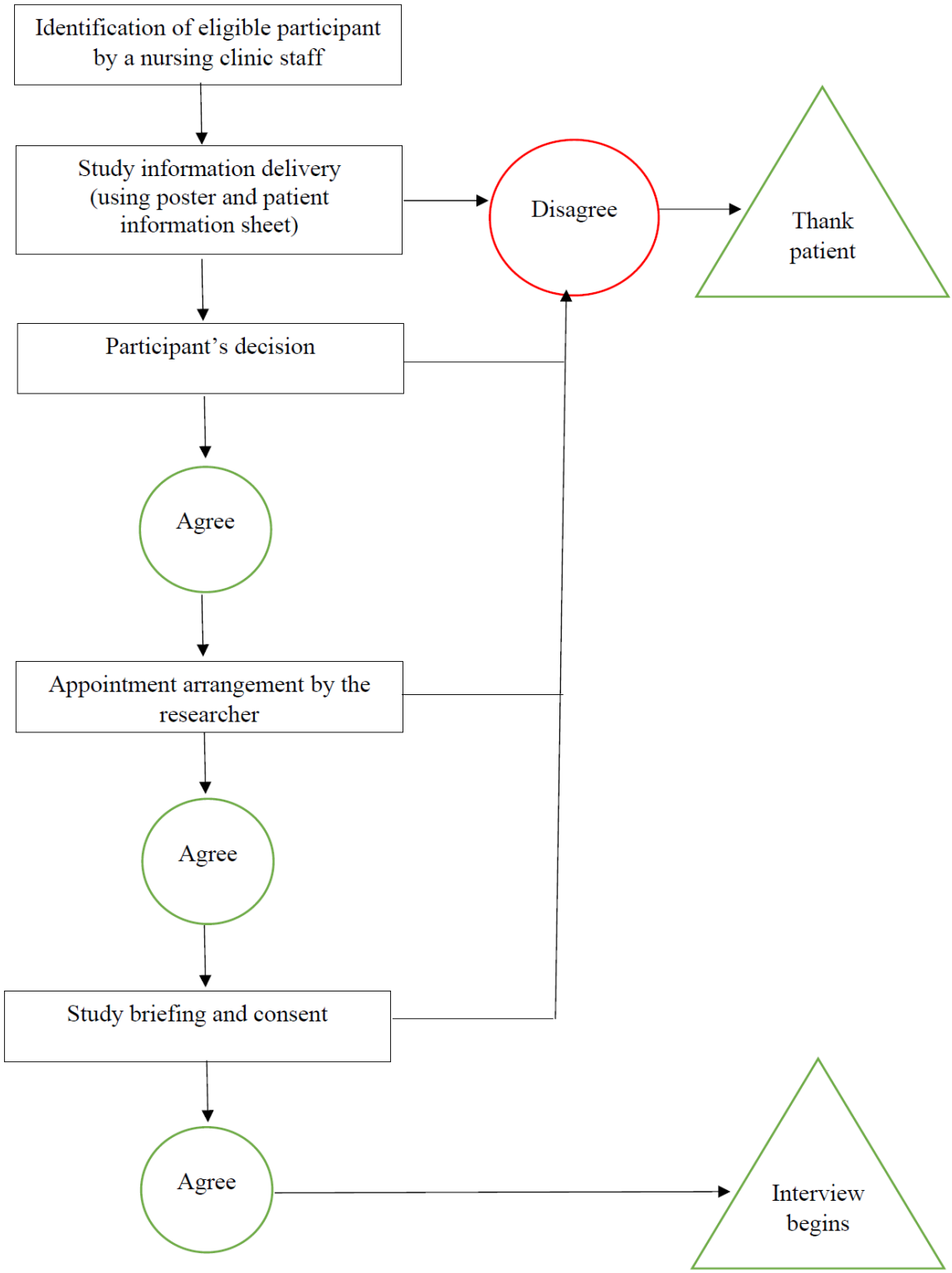
a) Befrienders Penang
Hotline: +6042815161 / +6042811108
Whatsapp : +601156997687
Email: pat@befpen.org

b) Befrienders Kuala Lumpur
Hotline: +60379568145

Email: sam@befrienders.org.my

c) Lifeline Association Malaysia
Hotline: +601131571495 / +60167201495
Email: counselling@lifeline.org.my

Appendix 16. Participant Recruitment Flowchart



Appendix 17. Informed Consent Form (English Version)

Consent Form

Study Title: **A Community-Focussed Qualitative Study of Lived Experiences of Bipolar Affective Disorder in the Malaysian Population: Understanding Self-Regulation from the Perspective of Social Ecology of Resilience**

We ask if you would like to participate in a research project that aims to understand individuals' experiences with severe mental illness in self-regulation.

Before you consent to participate in the study, we ask that you read the participant information sheet and mark each bracket below with your initials if you agree. If you have any questions or queries before signing the consent form, please speak to the principal investigator, Foo Weng Leong.

Please initial each statement below.

1. I confirm that I have read the information sheet and fully understand what is expected of me within this study. [ ]

2. I confirm that I have had the opportunity to ask any questions and to have them answered. [ ]

3. I understand that my interview will be audio recorded and then made into an anonymised written transcript. [ ]

4. I understand that audio recordings will be kept until the research project has been examined. [ ]

5. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected. [ ]

6. I understand that once my data have been anonymised and incorporated into themes, it might not be possible for them to be withdrawn. [ ]

7. I understand that the information from my interview will be pooled with other participants' responses, anonymised, and may be published; all reasonable steps will be taken to protect the anonymity of the participants involved in this project. [ ]

8. I consent to information and quotations from my interview being used in reports, conferences and training events. [ ]

9. I understand that the researcher will discuss data with their supervisor as needed. [ ]

10. I understand that any information I give will remain confidential and anonymous unless it is thought that there is a risk of harm to myself or others, in which case the principal investigator will/may need to share this information with their research supervisor and necessary actions be taken. [ ]

11. I consent to Lancaster University keeping written transcriptions of the interview for 10 years after the study has finished. [

I consent to take part in the above study.

Name of Participant: _____

I/C number: _____

Psychiatric diagnosis: _____

Previous hospitalisation (number of times): _____

Signature: _____

Date: _____

Researcher's section

I confirm that important information about the study has been informed, and the participant has been given an opportunity to ask questions which have been answered to the best of my ability. I confirm that the participant's decision to be involved in this study was made voluntarily without coercion.

Name of Researcher: _____

I/C number: _____

Signature: _____

Date: _____

Impartial witness' section

Name: _____

I/C number: _____

Signature: _____

Date: _____

Appendix 18. Debriefing Template

i) Appreciation for the participant's involvement in the study.

e.g., "Thank you for your willingness to participate in this study."

ii) Re-inform the purpose of the interview.

e.g., "The interview was meant solely for the current study topic that aims to understand the lived experiences of individuals living with bipolar disorder."

iii) Brief review of what transpired during the interview

e.g., "In the interview, we talked about…", "I asked about…and you responded…"

iv) Identify the positive and negative components during the interview.

e.g., "What are the aspects that you find helpful or less helpful during the interview?"

v) Further comments from the participant

e.g., "Is there anything else you would like to say about the interview?"

vi) Final comments from the researcher.

e.g., "Thanks once again for your time. Should you have any questions related to this study, please feel free to contact me. If you have questions about your current treatment, please contact your treating team."

SUPPLEMENTARY MATERIALS

1) Extracted Scoping Review Data

Study ID: 1	Date of data extraction: November 13, 2023
Title; Year of publication; Lead author: 'Listen, empower us and take action now!': reflexive-collaborative exploration of support needs in bipolar disorder when 'going up' and 'going down'; 2014; Billsborough, J.	
Country in which the study was conducted: UK	
Aim of the study: To investigate the support needs of individuals with bipolar disorder during periods of mania and depression and their prodromes.	
Study design: Qualitative research	
Study methods: Semi-structured interviews were conducted with bipolar disorder and the people who provided informal support to them. Reflexive collaborative approach was used to analyse the data in-depth to produce meaningful analytical categories and themes.	
Study participants' description: - The study population was recruited using convenience sampling through study information posted to the participants who had taken part in an earlier mental health study and bipolar support groups - Participants were individuals with bipolar disorder and their support person/carer - n = 27 (16 with bipolar disorder, 11 carers) - Male: 9 (7 with bipolar, 2 carers); Female: 18 (9 with bipolar disorder and 9 carers) - The age of individuals with bipolar disorder ranges from 18 to 64 and for the carers, the age ranges from 18 to 75+ - Patients' ethnicity (White, n = 11; Non-white, n = 2; Not stated, n = 3)	
Total number of participants: 27	
Socio-environmental contexts used to understand self-regulation:	

Individual	(SELF-AWARENESS/EVALUATION) - "If I feel like I'm enjoying [the party] a bit too much and I'm a bit too conversational, I feel like it's a warning sign for me. I have to

	go, because it it trips in...that can trigger an episode." (SELF-INITIATION) - "...forcing myself to arrange something to which I could look forward to." (SELF-ADMINISTRATION) - "If I'm feeling anxious, I take the benzodiazepine drug...I was going too high, I take the typical antipsychotic drug." (SELF-LEARNING) - "... because I find that once...if I go deep into an episode its very, very difficult to get out."
Microsystem	(SOCIAL (FAMILY/FRIENDS) SUPPORT) - "I think [what helped me] was being able to talk to somebody on their own, at a very, very, deeply personal level." - "...it was helpful to feel cared about and have someone to hold hope..." - "One supporter helped her daughter to stay away from friends who fuelled manic behaviour." (HEALTHCARE PROVIDERS' SUPPORT) - "...the cognitive analytical therapist...was incredible. I actually wrote her a letter after I got out, to say thanks, how much she'd helped me..."
Mesosystem	(INVOLVEMENT FROM FAMILY AND HEALTHCARE PROVIDERS) - "...the mental health team need to listen to the family, because they've been through this..."
Exosystem	None
Macrosystem	None

Other related terms indicating self-regulation:

Self-management, Coping, Self-empowerment

Other results (if relevant):

Three overarching themes related to the quality of support based on the thematic analysis of the research data:
a) being listened to and active engagement
b) empowerment
c) acting early

Challenges related to self-regulation (if any):

Individual	None
Microsystem	(OVERLY INVOLVED/CONCERNED CARERS) - "What I don't like is to be bombarded by people...being worried...then I feel guilty about them being worried." (LIMITED/INEFFECTIVE HEALTHCARE PROVIDERS' SUPPORT) - "However, support from health professionals was often not available quickly enough..." - "… I think they've been made worse by not being able to get the right sort of help at the right time."
Mesosystem	None
Exosystem	(LIMITED/SUBSTANDARD TREATMENT SERVICES) - "Participants generally felt there was…not enough on therapy...limited availability and long waiting lists...people rarely get this support..."
Macrosystem	None

Author's conclusion:

Support needs differ between periods of depression and mania. Supporters (family, friends, health professionals) play an important role in the well-being of individuals with bipolar disorder. Effective communication is essential.
They can help by being observant of early warning signs and responding early.

Reviewer's comments (if any):

Dialogues/experiences were not clearly differentiated between those of patients and of carers. The dialogues/experiences had to be read carefully and interpreted in the context of what was being said and by whom.

Study ID:	Date of data extraction:
2	November 15, 2023

Title; Year of publication; Lead author:

Coping strategies used by poorly adherent patients for self-managing bipolar disorder; 2016; Blixen, C.

Country in which the study was conducted:

United States

Aim of the study:

To explore coping strategies among non-treatment adherent individuals with bipolar disorder.

Study design:

Qualitative research

Study methods:

The interviews were conducted as baseline assessment for a RCT study.
In-depth semi-structured interviews were conducted on coping strategies of individuals with bipolar disorder who were not adherent to their medications.
Interviews were transcribed verbatim and analysed using content analysis method.
Themes were identified at a descriptive level.
A coding manual with the coding definitions was produced and the transcripts were checked against the manual.

Study participants' description:

Gender: Female, n = 15; Male, n = 6
Marital status: Married, n = 3; Non-married, n = 18
Ethnicity: Caucasian, n = 5; Non-Caucasian, n = 16
Three were married (the rest not stated of their status)
Mean age (s.d.): 47.29 (11.06)
Mean level of education (s.d.): 12.10 years (2.31)
Employment: Employed, n = 4; Unemployed/disabled, n = 17
Average age of onset for bipolar disorder (s.d.): 22.05 (10.31)
Bipolar type: Type 1, n = 17; Type 2, n = 3; Not stated, n = 1
Average number of psychiatric hospitalisations: 4.15 (s.d. = 3.47)

Total number of participants:

21

Socio-environmental contexts used to understand self-regulation:

Individual	(SELF-CARE) - "As far as eating, doing a lot of cutting back of meat, junk food...Cutting out sugars. I don't do a lot of dairy. Do a lot of fruits and vegetables..." - "I do leg lifts and do my arm exercises...I do this mostly to keep my muscle strengths together, so that I can still maintain a small ability to be able to walk..." - "I exercise every day. Not vigorous activity, but stretching and sit-ups..." (SELF-REFLECTION) - "...remembering things that happened to me in the past when I didn't take my meds and reverted to taking drugs and not wanting to get caught up in the madness again."

	- "I keep a journal...when I sit down to write, then I tend to remember..." (SELF-REMINDER) - "...medicine is right by my bed, as soon as I sit up I take them." - "Yes, the only thing that has been helping me is I put the bottle...right on my window sill...I'm gonna walk past and look at it and say "Oh, yeah. Make sure you take your pill today."" (SELF-MONITORING AND ACTION) - "...I'm aware of what I'm doing...I have to verbally acknowledge it...so I can make sure I slow myself down..." - "...so I'm trying to put myself back in a track to where I'm on a more...cohesive basis." (SELF-DISTRACTION) - "…So, reading takes me out of myself...I can go all over the world, just sitting right there in the living room. So, that helps." - "...I try and keep busy because I don't like to think and I just can't be still. I have to keep it moving." - "...I'll clean my house or play some music or watch a good movie on TV or cook...I try and keep busy because I don't like to think...I have to keep it moving." (SELF-HELP/ENJOYMENT/RELAXATION ACTIVITIES) - "Yeah, music, a lot of music...I think music is the best pill you can ever take..." - "I watch TV. I love to watch certain shows like...I mean those are things that get me like a burst to strength...I really get going when I watch those shows!" (SELF-DISCIPLINE) - "I took them twice a day. As soon as I got up...and...before bedtime...So, staying on schedule wasn't a problem." "...I keep my appointments except when she's on vacation or something like that. No, I never miss them but maybe a couple of times..." - "...I try and keep my appointments pretty good..." (SELF-LEARNING) - "...I've got tons of research on that and it's helped me understand..." (SELF-ACCEPTANCE)

	- "...and it's not so bad that I have it. So, I don't feel so bad about it." (RELIGIOUS BELIEFS/PRACTICES) - "Every morning...read a page of "Daily Bread" or "In Touch with Life," something spiritual...Just peace and thinking about how good the Lord is..." - "...Just peace and thinking about how good the Lord is and things like that." (SELF-ADJUSTMENT) - "I got in the habit of breaking them in half (pills), and I take them that way and it made it easier for me to deal with it...Now, I can deal with them..." (SELF-AWARENESS/EVALUATION) - I am way ahead of myself at times. And when I have to start telling myself "slow, K." even when I'm talking to family...- I'm aware of what I'm doing...It helps a whole lot..." (SELF-CONTROL) - "I try to think happy thoughts and just try to force myself not to get upset or angry at things..." (SELF-AVOIDANCE/ISOLATION) - "I just stay home and avoid stressful situations...I just stay to myself...I enjoy being by myself. My cats keep me company and I stay out of trouble and it works." (POSITIVE SELF/MINDSET CULTIVATION) "I try to think happy thoughts and...not to get upset or angry at things..." (SELF-ENGAGEMENT) - "I work every day but I do a few things at home or like walk, see friends, or do things with my family. Pretty much staying alive, talking to people, enjoying life more."
Microsystem	(SOCIAL (FAMILY/FRIENDS) SUPPORT) - "...I have a good support system...if I'm on the phone with my mom and I'm having a manic day or I'm going too fast or I'm hyper, she'll let me know..." (HEALTHCARE PROVIDERS' SUPPORT) - "...she always said if I had a crisis I can call this emergency crisis hotline or call her."

	- "At first it was every month, but they feel like...I'm stabilised enough and she felt that being on the medicine and stuff and talking to me and not have any problems, so now it's every other month."
Mesosystem	(INTERACTION AND ENGAGEMENT IN SUPPORT GROUPS) - "I go to support groups like AA and NAA. Ah those are the people I'd rather be around when recovering so I go to group on like Monday."
Exosystem	(INFLUENCE FROM INTERNET/CYBERSPACE/SOCIAL MEDIA) - "I've done a lot of research on it. Like on the Internet. Like I searched what is bipolar disorder, and how does it affects you..." - "...There's chat rooms, and people in there blogging about their experiences that they have with it. And how they manage to cope with it..." (INVOLVEMENT AND ENGAGEMENT WITH WORK OR ORGANISATIONAL COMMUNITY) - "On weekends, I volunteer at an air museum."
Macrosystem	None

Other related terms indicating self-regulation:

Coping, Self-management, Self-monitoring

Other results (if relevant):

Two major domains and their subdomains of coping strategies used by individuals to self-manage bipolar disorder were identified after a transcript-based analysis of the interview data:
a) Problem focussed coping
- altering lifestyle behaviours
- managing mood-stabilising medications
- keeping psychiatric appointments
- seeking knowledge on bipolar disorder
- socialising
- self-monitoring

b) Emotion-focussed coping
- distracting
- distancing
- helping others
- seeking social support

Challenges related to self-regulation (if any):

Individual	(SELF-STIGMA/FEAR/ILLNESS CONCEALMENT) - "If I start a relationship, I stop taking my medication because I don't want them to know what I got (BD)." - "It took a long time for me to take the medicine because I didn't want to be classified as having a mental illness because I thought I'd be ostracized [...] (SELF-DENIAL/IGNORANCE) - "...When I get into the nurse's office or, going to the doctor, I'm really terrified to death and I don't know what they're going to tell me. And if they tell me something that means I'm crazy, I probably block it out and say no, it's not true. And I won't believe what they tell me. It's hard, it's difficult."
Microsystem	(SOCIAL STIGMA/DISCRIMINATION/EXCLUSION/ISOLATION) - "If my friends knew that I was taking medicine because I was bipolar, they'll say I am crazy."
Mesosystem	None
Exosystem	(TRANSPORTATION FACILITY ISSUES) - "Get me transportation so I can keep my appointments!" (HOUSING FACILITY ISSUES) - "When you have a limited income, it's hard to find housing. It's hard to find programs where you can go to be able to get some type of help. They (providers) don't give you any avenues of resources..." - "When you have a limited income, it's hard to find housing..." - "...They (providers) don't give you any avenues of resources. They'll tell you "well, go down to the welfare building." Welfare building cannot help you..."
Macrosystem	None

Author's conclusion:

Many situational factors can influence the appraisal and reappraisal of perceived threats, which can affect emotions and coping behaviours.

Reviewer's comments (if any):

-

Study ID:	Date of data extraction:
3	November 20, 2023

Title; Year of publication; Lead author:

Why doesn't God say 'enough'? Experiences of living with bipolar disorder in rural Ethiopia; 2021; Demissie, M.

Country in which the study was conducted:

Other: Ethiopia

Aim of the study:

To explore illness experience, coping strategies, help-seeking practices, and consequences of illness among people with bipolar disorder and their family in rural Ethiopia.

Study design:

Qualitative research

Study methods:

A qualitative phenomenological study to explore the lived experiences of people with bipolar disorder in Ethiopia. Interviews were recorded, transcribed, translated into English, and then analysed using thematic analysis.

Study participants' description:

Study population:
a) People with bipolar disorder (n = 15)
b) Caregivers (n = 12); Spouse, n = 7; Not stated, n = 5
c) Gender: Female, n = 12; Male, n = 15
d) Marital status: Married, n = 18; Not married/not stated, n = 7
e) Literacy status: Illiterate, n = 11; Not stated, n = 16

Other characteristics of the study participants were not described in this study, as they were already described in previous related research.

Total number of participants:

27

Socio-environmental contexts used to understand self-regulation:

Individual	(SELF-CONTROL) - "...I know the things that make my illness worse, so I try to control them." (SELF-AWARENESS/EVALUATION) - "I feel heavy headed...I become disinterested to do something that I planned to do...I realize that I'm going to get sick." - "...I was chewing a lot so it has worsened my illness. Now, I stopped chewing..." (RELIGIOUS BELIEFS/PRACTICES) - "I'm always...and praying in front of God..." - "I read the bible and listen to religious songs on Sunday...it helps me to feel hope..."

	(SELF-AVOIDANCE/ISOLATION) - "...I don't feel good when there is crying/shouting...shouting makes me emotional and I absorb the sorrow...so I will see my condition and if I feel unwell, I leave it." - "In order to forget a situation that makes me worried, I leave the place and go somewhere in order to console myself..." (SELF-INITIATION) - "Some PBD reported taking actions to change their surroundings; for example, chatting with friends..." (SELF-LEARNING) - "Participants take a lesson from their illness experience to avoid or use substance to manage their symptoms..." (SELF-CONVICTION) - "...Now, I stopped chewing for the last eight years because of my religious convictions..." - "Both PBD and caregivers emphasized the power of biomedical treatment in alleviating symptoms of illness..." (SELF-ACCEPTANCE) - "...they came to accept problems that could not be reversed or changed and found this acceptance calming."
Microsystem	(SOCIAL (FAMILY/FRIENDS) SUPPORT) - "...I have good relationship with others, I spend time with my wife and children..." - "...The more we get together, the better we know and understand each other so they don't stigmatize me..."
Mesosystem	(INVOLVEMENT FROM FAMILY AND FRIENDS) - "I share my feeling to my sisters, brothers, and friends too and it helps me a lot..."
Exosystem	(INFLUENCE FROM CAREGIVER'S WORK/JOB) - "If he got sick, I look after him...I couldn't do anything...so how can I work?..."
Macrosystem	(RELIGIOUS IDEOLOGY) - "...Everything happened in the will of God, he created us and we will pass, our time is already known by him so now I stopped worrying about them..."

	(CULTURAL NORMS/PRACTICE) - "...I was isolated from others, so Khat created an opportunity for me to socialize...The more we get together, the better we know and understand each other so they don't stigmatize me. So, Khat is a good solution for me."

Other related terms indicating self-regulation:

Coping, Help-seeking, Self-management, Problem-solving, Self-care

Other results (if relevant):

Based on the interview data collected and subsequently analysed, 3 main themes and their subthemes were identified:
a) Experiences and expressions of illness
- foreboding of illness
- priority problems
b) Managing self and living with others
- social factors
- religious beliefs and practice
- biomedical treatment
- substance use
c) The costs of affliction
- people with BD
- family members

Challenges related to self-regulation (if any):

Individual	(SELF-DISTRUST/DEGRADATION) - "...I don't share my feeling to other people because loving people is possible but, trusting all is difficult..." (LOSS OF ILLNESS-/SELF-CONTROL) - "...I stayed without getting married because my illness came back every time so I feared that it may work as a cause for disagreement and divorce..." (NEGATIVE PERCEPTION OF TREATMENT/TREATMENT SIDE EFFECTS) - "… I always feel sleepy in the morning even though I slept for a long time in the night...I sometimes stopped taking it not to be sleepy..."
Microsystem	(SOCIAL STIGMA/DISCRIMINATION/EXCLUSION/ISOLATION) - "...People considered me as mentally ill who can't think and do things by myself..." - "...people were calling me crazy and were not wanting to communicate with me."

	- "...people, including my family members, change their direction when they see me on the street, not to talk to me as if they didn't see me..." - "PBD and caregivers were concerned about direct or indirect social exclusion of PBD due to their illness..." - "Many PBD and caregivers described the compounding effects of exclusion upon social isolation..." - "...I just sit and hear what they are saying because people around me think that I am dangerous..." - "I have been divorced for nine years. My neighbours and community members were supporting him [her husband]- everybody said, he has to get married to another woman and lead his own life...they decided that I had to leave the house with my children..." - "Previously when I planned to marry, people said he is mentally ill..., many of them were not willing to have a marital relationship with me because of my mental illness..." - "...I feel as if people saying to me that I am frequently going to hospital because of getting the treatment free rather than being unwell. So, I didn't go to hospital immediately after feeling unwell..."
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

People with bipolar disorder and caregivers routinely recognise and act on early warning signs as coping strategies. Stigma acts as a driver and consequence of the illness which leaves them socially alienated. Some individuals with bipolar disorder have close relationships with family and friends. Besides, they also cope well by having spiritual faith and the use of medication.

Reviewer's comments (if any):

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Study ID: 4	Date of data extraction: November 21, 2023

Title; Year of publication; Lead author:

Disability and Self-Management Practices of People with Bipolar Disorder: A Web-based Survey; 2009; Depp, C.A.

Country in which the study was conducted:

United States

Aim of the study:

To investigate self-management practices among people with bipolar disorder and the associations with their disability.

Study design:

Other: Survey

Study methods:

- An online survey was created and 'opened' for participants to those above 18 years old with a diagnosis of bipolar disorder
- Variables for strategy use and perceived helpfulness were correlated with demographic and clinical characteristics, along with the total score for illness intrusiveness with subsequent statistical analyses

Study participants' description:

Mean age (range 18 - 79): 40.8 (s.d.= 11.2)
Gender- Female: 76.8%; Male: 23.2%
Ethnicity- Caucasian: 87.3%; Non-Caucasian: 12.7%
Relationship- Married/living with a partner: 56.4%; Not stated: 43.6%
Education level- At least college education: 84%; Not stated: 16%
Employment- Not working for pay: 50.3%; Not stated: 49.7%
Reason for unemployment- Due to bipolar disorder: 86.8%; Not stated: 13.2%
Mean age of bipolar disorder symptoms onset: 18.5 (s.d.= 9.6)
Mean age of bipolar disorder first diagnosis: 32.9 (s.d.= 11.1)
Participants on medication- Current: 86.3; Past: 10.9%; Never: 2.9%
Participants currently in counselling: 51%
Participants currently in a support group: 13.1%
Satisfaction level of mental health services: 76.1% at least "somewhat satisfied" (rating 4/7)

Total number of participants:

1024

Socio-environmental contexts used to understand self-regulation:

Individual	(TREATMENT ADHERENCE) - "Taking medication for bipolar disorder as directed" (SELF-CARE) - "Practicing good sleep habits" - "Getting/Participating in physical exercise" - "Trying to maintain a healthy/balanced diet" (SELF-INITIATION) - "Identifying early signs of mania and taking action/steps to counteract them" - "Identifying early signs of depression and taking action/steps to counteract them" (SELF-PLANNING) - "Coming up with a plan for what to do when

	my symptoms get worse" (POSITIVE SELF/MINDSET CULTIVATION) - "Finding ways of viewing bipolar disorder as only part of who I am" - "Finding ways of viewing setbacks as only temporary circumstances" (SELF-EXPLORATION) - "Trying out new activities/roles to replace ones that I have lost" - "Focusing on creative activities or projects" (SELF-HELP/ENJOYMENT/RELAXATION ACTIVITIES) - "Coping with difficult emotions through relaxation, self-talk…" - "Taking 'time out' when I become overly stressed" (SELF-REFLECTION) - "Looking back on times when I have successfully managed to overcome setbacks" (SELF-DISCIPLINE) - "Trying to maintain a stable day-to-day routine"
Microsystem	(HEALTHCARE PROVIDERS' SUPPORT) - "Contacting my healthcare provider when a treatment is not working or when I am experiencing a side effect"
Mesosystem	(INVOLVEMENT FROM FAMILY AND FRIENDS) - "Discussing my experiences with bipolar disorder with family and friends"
Exosystem	None
Macrosystem	None

Other related terms indicating self-regulation:

Self-management, Role management, Emotional management

Other results (if relevant):

a) Older age ($r = 0.130$, $p < 0.001$) and longer illness duration ($r = 0.163$, $p < 0.001$) correlated positively with the number of strategies tried
b) Higher education level correlated positively with the number of strategies tried ($r = 0.174$, $p <$

0.001)
c) The number of strategies tried did not correlate with illness intrusiveness or percentage of time in the past year with manic or depressed symptoms
d) The number of strategies found helpful was negatively correlated with illness intrusiveness ($r = -0.319$, $p < 0.001$), percent of the year spent with manic symptoms ($r = -0.205$, $p < 0.001$) and depressed symptoms ($r = -0.308$, $p < 0.001$)

Challenges related to self-regulation (if any):

Individual	None
Microsystem	None
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

Individuals with bipolar disorder use many avenues to help them cope with the effects of the disorder. The Internet can be used as a means to improve the use of self-management strategies.

Reviewer's comments (if any):

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Study ID:	Date of data extraction:
5	January 3, 2024

Title; Year of publication; Lead author:

Renegotiating identities: Experiences of loss and recovery for women with bipolar disorder; 2014; Fernandez, M. E.

Country in which the study was conducted:

Australia

Aim of the study:

To explore among a community sample of women with bipolar disorder on their experiences of loss, coping, and recovery in their illness.

Study design:

Qualitative research

Study methods:

Semi-structured interviews were conducted with 10 women in the community with bipolar disorder. Interviews were recorded and transcribed. The interview data were analysed using the constant comparative method to identify relevant themes.

Study participants' description:

Gender: All women (n = 10)
Nationality: All Australian
Age range: 29 - 68 (mean = 50.00; s.d. = 15.33)
Marital status:
a) Married, n = 4
b) Separated/divorced, n = 2
c) In a relationship, n = 2
d) Single, n = 2
Employment:
a) Worked full-time, n = 1
b) Worked part-time, n = 3
c) Unemployed, n = 3
d) Retired, n = 3
Bipolar type: (I, n = 7; II, n = 2; cyclothymia, n = 1)
Range number of hospitalisations: 0 - 10 (mean: 2.30; s.d.: 2.94)

Total number of participants:

10

Socio-environmental contexts used to understand self-regulation:

Individual	(SELF-AWARENESS/EVALUATION) - "If you have got bipolar you will need medication." - "I do not see any alternative...I am happy to take my medication." (SELF-ACCEPTANCE) - "I have got to choose to live in reality. I can live in psychosis La-La Land and my experiences are very good with mania [laughter], but...you have to go back to the real world." - "I have accepted the fact that I am more unusual, that I have a brain that is exceptionally different. I would not say better than anybody else's, I do not think, but it is different." - "Bipolar is what I have, it is not who I am." (SELF-INITIATION) - "[If] I have had some sort of stressor or trigger during the day, I need to talk about it…" (SELF-CARE) - "Others focussed on strategies for symptom management, including…"sleep," setting "limitations," "exercise,"…" (SELF-

	DETERMINATION/PERSEVERANCE) - "Overall, [in] dealing with my losses I have always been a very determined, persistent, tenacious person...and people said, "You are not going to do this, and you are not going to do that, or you should not do this," I was thinking, "I am going to do whatever it is I want to do!"" (SELF-CONTROL) - "I have control of bipolar, it does not have control of me." (POSITIVE SELF/MINDSET CULTIVATION) - "...'I am not an oddity; I am just one of many others who are travelling the same road.' That feeling that I am not the only one." - "...I feel that I might be even a subtype of the human species basically. Not in a bad way- just that I am different...In wanting to be like everyone else I had missed that there was maybe something special about me. In a way, that is something that can be celebrated."
Microsystem	(SOCIAL (FAMILY/FRIENDS) SUPPORT) - "They used to come and do the washing for me, bring me homemade bread, and look after the family." - "...She knows when I need to be quiet and she knows when I need to talk...it is such a wonderful friend that can do that."
Mesosystem	(INTERACTION AND ENGAGEMENT IN SUPPORT GROUPS) - "Support groups provided a lot of laughter, camaraderie, and a sense of connection with "like-minded people."
Exosystem	None
Macrosystem	None

Other related terms indicating self-regulation:

Self-determination; Self-surveillance; Self-efficacy; Self-help; Coping; Emotional regulation; Self-control; Autonomy

Other results (if relevant):

Data analysis identified 3 themes:
a) Identity bound by the diagnostic label

b) Multidimensional effects of the bipolar disorder identity
c) Strategies for renegotiating identity

Challenges related to self-regulation (if any):

Individual	(NEGATIVE PERCEPTION OF TREATMENT/TREATMENT SIDE EFFECTS) - "..."No, I am not going to take them, I do not want the medication...I am not going to swallow it because I do not want it."" - "I was twenty-three and I was going to a support group with fairly chronic people with really difficult experiences, so that was not helpful." (SELF-DENIAL/IGNORANCE) - "I always say that I do not suffer from bipolar; it is my family and friends that suffer from it." (SELF-STIGMA/FEAR/ILLNESS CONCEALMENT) - "could see me well [me] for birthdays and celebrations, but sick [me] would get her own help; she would look after herself." (FUNCTIONAL/WORK IMPAIRMENT) - "I went from full-time [work] to part-time. Now I am casual and I am lucky if I do two shifts a week." - "I have had to leave work, and I have been working there for eight years." - "I do not really care about studying in the depression. It does not mean anything for me anymore. I do not know why I am doing it." - "I was a drop-out." - "I did not complete any of the degrees [I started]." (LOSS OF ILLNESS-/SELF-CONTROL) - "I was a person I did not want to be. I did things I would not normally do." - "In mania my emotion flips and changes very quickly. I might [attempt] suicide in mania, or feel suicidal." (SELF-DISTRUST/DEGRADATION) - "I have felt less trust in myself. I felt I did not have as much confidence in different things that I did." - "I lack confidence something terrible." - "...After a while you begin to doubt yourself and you lose that kind of tenacity and nerve to do things..." - "Loss of reputation and loss of identifying with how I really wanted to be, which was probably wholesome [with a] good personality." - "The bad side for me would be to lower my standards, lower my expectations of myself, get around with the Seroquel shufflers and just accept myself in that role."

Microsystem	(LIMITED/INEFFECTIVE HEALTHCARE PROVIDERS' SUPPORT) - "I did not really understand what I had; nobody really told me that I had anything, really. They gave me pills to take [but] they did not explain what they were for." (LACK OF SOCIAL (FAMILY/FRIENDS) SUPPORT) - "Well it is not my (the mother) problem, it is your problem. Why should I have to change my life to fit in your situation?" (IMPAIRED INTERPERSONAL RELATIONSHIPS) - "Not being able to have an ordinary relationship with my husband was another loss." - "I am not able to be there for her when I have gone to the hospital. I cannot really be a mother for her. That is a loss for me because she is very important to me, and to not feel that I can be a parent to her- it is difficult." (SOCIAL STIGMA/DISCRIMINATION/EXCLUSION/ISOLATION) - "You are a lunatic" - "You have been in the loony bin" - "...should never be in charge of children" - "You have got this big stamp on your forehead that everyone else sees...All this stuff about equality in out society is just a load of rubbish."
Mesosystem	(UNDER OTHERS' SCRUTINY) - "Are you symptomatic? You are talking a lot. Maybe you have got some mania?" - "My boss was really worried that I might have been becoming unwell...she contacted my psychiatrist before I got there. My boss had said I was wearing different clothes, so it is this fear of, I cannot look different, I cannot wear different things, I cannot have a lot of money or act in certain ways."
Exosystem	None
Macrosystem	None

Author's conclusion:

Bipolar disorder can impact one's sense of identity. It is important to preserve their identity while dealing with their illness. Even though bipolar disorder may result in a range of losses, individuals can develop new skills, grow personally, and form a new identity.

Reviewer's comments (if any):

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Study ID:	Date of data extraction:

6	November 21, 2023

Title; Year of publication; Lead author:

Hold on Tight: Coping Strategies of Persons With Bipolar Disorder and Their Partners; 2018; Granek, L.

Country in which the study was conducted:

Other: Israel

Aim of the study:

To explore coping strategies of individuals with bipolar disorder and their partners.

Study design:

Qualitative research

Study methods:

Individuals with bipolar disorder and their partners were interviewed about coping strategies. Data were analysed using the grounded theory approach.

Study participants' description:

Participants: (Patient, n = 11; Spouse/partner, n = 10)
Gender:
a) Patient (Female, n = 7; Male, n = 4)
b) Spouse/partner (Female, n = 5; Male, n = 5)
Age:
a) Patient's median age: 50 (ranged 30 - 68)
b) Spouse/partner's median age: 52 (ranged 39 - 70)
Education level:
a) Patient (High school, n = 5; College degree, n = 4; Graduate/professional degree, n = 3)
b) Spouse/partner (High school, n = 5; College degree, n = 1; Graduate/professional degree, n = 3)
Employment status:
a) Patient (Employed, n = 5; Unemployed, n = 3; Retired, n = 3)
b) Spouse/partner (Employed, n = 7; Unemployed, n = 1; Retired, n = 2)

Total number of participants:

21

Socio-environmental contexts used to understand self-regulation:

Individual	(SELF-AVOIDANCE/ISOLATION) - "As with the partners, PWBD (people with bipolar disorders) also reported that they avoided thinking about the disorder, past episodes, and the impact of the disorder...as a coping mechanism."

		- "You shouldn't talk about the illness much...Let it go..." - "I tell myself not to think of the past manic episodes..." (SELF-ACCEPTANCE) - "PWBD...spoke about self-acceptance and acceptance of BD...motivated them to be responsible..." - "I think that at this time of my life I am able to accept that the illness is a part of me. If I can accept that coping with the illness is an ongoing process, I accept that it's a part of me..." - "Today I am much more accepting of the illness than I was in the beginning...Today it's different, I went through a process..." (SELF-DISCIPLINE) - "PWBD focussed more on sticking to their treatment regime- taking their medications and avoiding potential relapse triggers..." (SELF-CARE) - "I'm trying not to burden myself...I'm not drinking, I'm drug-free, and I'm trying to sleep well." (SELF-ENGAGEMENT) - "I'm keeping myself busy in order for my brain to work, otherwise it will backslide and I will get depressed." - "...Once you get into it- to work, to run around, to take care of the family, to cook, to clean- you forget about the difficulty." (SELF-RESPONSIBILITY/ACCOUNTABILITY) - "...I can't afford to let myself do whatever I want. I have a responsibility..." (SELF-LEARNING) - "...I have read religious guidance books about self-awareness, that teach you how to maintain domestic peace." (POSITIVE SELF/MINDSET CULTIVATION) - "There's no need to think of the BD, you need to think positive all the time." - "I'm constantly trying to think positively...Overall you should see everything positively...There is no such thing as giving up on yourself."

	- "...PWBD reported trying to think positive thoughts to cope." (RELIGIOUS BELIEFS/PRACTICES) - "My religion helps me cope...I'm also praying that God will guide me in the right way...I hope that God will help me."
Microsystem	(HEALTHCARE PROVIDERS SUPPORT) "Sometimes I come to the centre to talk with the psychologist...I know I can speak without shame there." - "The [physician] gives me confidence...and he speaks with me and examines me...He's the seal of approval for me." (SOCIAL (FAMILY/FRIENDS) SUPPORT) - "We are entirely open. We talk and share with each other (partner) about everything..." - "She's helping me a lot...She's calming me down..." - "My husband has been very supportive and been there for me all these years." - "I was after childbirth...We received my mother-in-law's support. She moved to live at our place for months." - "...I speak with a friend and have a heart-to-heart." - "I've got children...They help. I can tell them to cook instead of me, clean. They really step in to help." (WORKPLACE SUPPORT) - "There are a few people I counted on and told them about the illness. [Among them is] my manager at work. I tell people who I trust who I trust, so that I won't have to tell lies, for example, for why I'm absent from work."
Mesosystem	(INVOLVEMENT FROM FAMILY AND HEALTHCARE PROVIDERS) - "Sometimes I come to the center to talk with [the psychologist], and my husband asks me: "You're going again?"..." (INVOLVEMENT FROM FAMILY AND SPIRITUAL LEADERS) - "My wife told me that I need to take medication...I'm not ready to take...I said that I'll go...to ask the synagogue's rabbi...he told me to take the mediations. I took the medication...everything calmed down." (INVOLVEMENT FROM FAMILY AND

	FRIENDS) - "Partners and PWBD both drew on each other, their parents, their friends, and their children for social support in coping with BD..." - "...There were days that I couldn't keep functioning as a caregiver. I asked his family to take him for a few days, or take the children for a while."
Exosystem	None
Macrosystem	(RELIGION IDEOLOGY) - "...In Judaism you learn that if you suffer, sometimes it's for the better..."

Other related terms indicating self-regulation:

Coping

Other results (if relevant):

-

Challenges related to self-regulation (if any):

Individual	None
Microsystem	(LACK OF SOCIAL (FAMILY/FRIENDS) SUPPORT) - "...I tell him that if I can't cry at home or talk to him, then who should I talk with?..."
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

PWBD rely more on social support and instrumental coping strategies than their partners. They use psychiatric, psychological, and psychosocial means of professional support.

Reviewer's comments (if any):

Only information relevant to individuals with bipolar disorder was included here to reflect the scoping review objectives.

Study ID:	Date of data extraction:

7	January 8, 2024

Title; Year of publication; Lead author:

"What makes you well?" Supports of well-being in bipolar disorder. A qualitative study; 2023; Jupille, J.

Country in which the study was conducted:

Other: France

Aim of the study:

To explore the boundaries and determinants of well-being among individuals with bipolar disorder in France.

Study design:

Qualitative research

Study methods:

Participants were recruited from an outpatient psychosocial rehabilitation centre in France. Semi-structured interviews were conducted via phone or video call. The interview data were transcribed and analysed using thematic analysis to identify potential themes.

Study participants' description:

Gender: (Female, n = 12; Male, n = 4)
Age: (Range: 20 - 51 years; Mean: 37 years)
Family status:
a) Single without children, n = 5
b) Single with children, n = 2
c) Couple without children, n = 4
d) Couple with children, n = 5
Employment status:
a) With employment, n = 6
b) Unemployed, n = 8
c) Student, n = 2
Bipolar type: (I, n = 5; II, n = 8; Undetermined, n = 3)
Illness duration (since diagnosis): (Range: 1 - 16 years; Mean: 5 years)

Total number of participants:

16

Socio-environmental contexts used to understand self-regulation:

Individual	(SELF-AWARENESS/EVALUATION) - "I know that if I don't get a good night's sleep, I'm starting to fall apart." - "It's very important to know oneself in order to...identify as quickly as possible when the phases change, whether it's in the high phase or

		in the low phase..." (SELF-ENGAGEMENT) - "If you don't keep yourself busy, you think, and if you think, you brood, and if you brood, it's less and less okay..." - "It makes me get up in the morning because I wouldn't get up, take a bath, make myself look pretty, go out, have contacts within the association, eat well, leave again..." - "Getting up in the morning and having something to do, getting up and having somewhere to go, to work..." (SELF-INDEPENDENT) - "...to have a salary contributes to my well-being...To have my place, to take my place and to be autonomous" (SELF-PRODUCTIVITY) - "What is particularly important to me is self-realization in work. If I do well at work, my health is fine" - "Work is recognition, and fulfillment in my work is feeling that I am doing something useful for others." (SELF-HELP/ENJOYMENT/RELAXATION ACTIVITIES) - "I find myself by doing the things I have to do and it is quite pleasant." - "I practice yoga and meditation every day. It is vital for me. Yoga relaxes the body. Meditation is essential for my mind. It's something that clears my head and settles me down for the whole day." - "Often if I'm in a bad mood, unwell, or tense, I'll go for a walk. On the way back, I realize that something has given way." - "...(meditation) helps me manage my emotions." (SELF-ACCEPTANCE) - "...Perhaps to have confirmations about your diagnosis and also to say to myself "oh yes, so that's part of the disease. So in fact I do have a problem." - "We found the right...in terms of treatment. It took a long time to find it, the diagnosis took a long time too..." - "Until I came to terms with the disease, it was hard to talk about it." - "I say I have an illness. Now, I don't hide from it anymore..."

	- "...I am no longer ashamed to say that I am bipolar." - "Because I am more accepting of the fact that I am ill, I also find it less difficult to set limits..." (SELF-RESPONSIBILITY/ACCOUNTABILITY) - "Now I know that I have a peculiarity. I take care of it, I treat myself..." (SELF-REFLECTION) - "I'm going to write down every morning when I get up what time I slept, did I drink and did I talk with friends, did I do sports? So I have a list of things and that helps me a lot, because it allows me to really spot when things change." (POSITIVE SELF/MINDSET CULTIVATION) - "...Yes, it's a disease and that's it...it doesn't stop me from living. I can live with it." (SELF-ASPIRATION) - "Getting a job would be a victory for me. For me, it's really about reintegrating into society, feeling useful..."
Microsystem	(SOCIAL (FAMILY/FRIENDS) SUPPORT) - "My family has changed their outlook...now they have understood that it is a disease." - "I'm lucky enough to have friends that I can do activities with or call regularly...I don't feel like I'm alone." - "When it happens to you, life doesn't make sense...It's all meaningless. you have to find the desire to do all that again. So that's what my relatives helped me to do..." - "When I'm in low periods, I know he [her husband]'ll do more things around the house, take care of the kids, give me time to myself..." - "My husband is a solid person which makes me feel safe and secure." - "They are able to see beforehand if something is going to happen..., so they play a bit of an early warning role." - "Sometimes I tell them when I'm very irritable, when I don't feel well and they want to cuddle..." (MENTAL HEALTH PEER SUPPORT) - "We understand each other directly because we have experienced the same things...I felt

	supported in fact. The fact of being able to explain something without having to go into details and that the person opposite just says "I understand indeed..."" - "...I prefer to see people who really understand and who have the same background." - "Talking with other people who have the same problems and saying "yeah, I'm not alone."
Mesosystem	(INVOLVEMENT FROM FAMILY AND FRIENDS) - "Friends or my husband are there to warn me when things are not going well..." - "...he'll [the husband] say "listen, you need to calm down" even if it means calling my doctor."
Exosystem	None
Macrosystem	None

Other related terms indicating self-regulation:

Self-management; Self-realisation; Self-care; Coping

Other results (if relevant):

Data analysis revealed nine relevant themes:
a) Balanced lifestyle
b) Fulfilling activities
c) Self-care/self-management
d) Family, loved one, and relatives
e) Peer support
f) The value of diagnosis
g) Work as social identity
h) Self-awareness and self-management
i) The "real" self and the disease

Challenges related to self-regulation (if any):

Individual	(FUNCTIONAL/WORK IMPAIRMENT) - "When you don't work the days are long and when the days are long there is boredom and at the end of the boredom there is discomfort" - "Not working for 3 and half years is complicated for me. My identity also goes through my professional identity. And now I don't really have any."

	(SELF-DENIAL/IGNORANCE) - "...certainly also because I didn't accept it, but I don't want to hear all that anymore..." (LACK OF ILLNESS KNOWLEDGE/ UNDERSTANDING) - "...that's what's so constraining about this illness...we don't even know what our abilities, qualities and faults are anymore; we don't know what is part of the illness or what is part of our character..."
Microsystem	(SOCIAL STIGMA/DISCRIMINATION/EXCLUSION/ISOLATION) - "...they said to me: 'You let yourself go, you are lazy'..." (LACK OF SOCIAL (FAMILY/FRIENDS) SUPPORT) - "...Because in my circle of friends, I've had so many judgments, criticisms..." (LACK OF ILLNESS KNOWLEDGE/UNDERSTANDING FROM OTHERS) - "...when we talk to friends about this without having experienced it on their side, without being a doctor, nurse, psychiatrist or others, they often look at me and say 'eh?'..."
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

Determinants of well-being are related to personal recovery and could help in the development of relevant intervention plans.

Reviewer's comments (if any):

-

Study ID:	Date of data extraction:
8	November 23, 2023

Title; Year of publication; Lead author:

Prodromes, coping strategies, insight and social functioning in bipolar affective disorders; 1997; Lam, D.

Country in which the study was conducted:

UK

Aim of the study:

To find out the effect of insight and coping strategies with bipolar prodromes on social functioning.

Study design:

Cross sectional study

Study methods:

Forty individuals with bipolar disorder were interviewed, and their responses were rated according to the guidelines given.
Measures used were the MRS Social Performance Schedule (SPS), the Insight Questionnaire, the Mania Scale (MAS), the Beck Depression Inventory (BDI), and the Coping with Prodromes Interview.
Statistical analyses were performed on the data collected.

Study participants' description:

Gender- Male: 17; Female: 23
Age: (65 and below, n = 36; Above 65, n = 4)
Mean age: 43.7 (s.d. = 13.1)
Marital status- Married: 18; Single: 15; Separated/divorced: 6; Widowed: 1
Social class: (Class 1, n = 10%; Class 2, n = 5%; Class 3, n = 35%; Class 4, n = 25%; Class 5, n = 25%)
Mean age of illness onset: 27.1 (s.d. = 10.2)

Total number of participants:

40

Socio-environmental contexts used to understand self-regulation:

Individual	(SELF-CONTROL) - "Modify excessive behaviour and restrain myself" - "Delay impulsive actions" (SELF-CARE) - "Take extra time to rest" - "See a doctor" - "Exercise or keep fit" (SELF-HELP/ENJOYMENT/RELAXATION ACTIVITIES) - "Engage in calming activities" (SELF-MONITORING AND ACTION) - "Monitor my mood or action" (SELF-PLANNING) - "Prioritise and reduce the number of tasks" - "Get myself organised and keep busy" - "Take time off work" (SELF-DISCIPLINE)

	- "Maintain a routine" (SELF-REMINDER) "Tell myself I am getting into dangerous situations" (SELF-AVOIDANCE/ISOLATION) - "Spend time on my own to avoid stimulation" - "Distract myself from negative thoughts by doing things" (SELF-AWARENESS/EVALUATION) - "Recognise unrealistic thoughts and evaluate if things are worth worrying about"
Microsystem	(HEALTHCARE PROVIDERS' SUPPORT) - "Take extra medication as previously agreed with the doctor, e.g., major tranquillizer" (SOCIAL (FAMILY/FRIENDS) SUPPORT) - "Talk to someone to bring some reality into my worries" - "Get social support and meet people"
Mesosystem	None
Exosystem	None
Macrosystem	None

Other related terms indicating self-regulation:

Coping

Other results (if relevant):

a) Total SPS scores significantly correlated with the total BDI scores(Pearson's $r = 0.62$, $p < 0.000$ two-tail) and the total MAS scores (Pearson's $r = 0.35$, $p = 0.026$ two-tail).
b) The correlation between the total SPS scores and the total Insight scores was not significant (Pearson's $r = -0.265$, $p = 0.099$).
c) There was a significant correlation between coping with prodromes of depression and coping with prodromes of mania (Pearson's $r = 0.51$, $p = 0.001$ two-tail).
d) Both coping with prodromes of depression and mania were significantly correlated with SPS total scores (Pearson's $r = -0.45$, $p < 0.02$ two-tail for depression; Pearson's $r = -0.56$, $p < 0.00$ two-tail for mania).

Challenges related to self-regulation (if any):

Individual	None
Microsystem	None
Mesosystem	None
Exosystem	None

Macrosystem	None

Author's conclusion:

The patient's level of social functioning was related to their insight level and their coping ability with the prodromes of mania and their detection of the prodromes of depression.

Reviewer's comments (if any):

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Study ID:	Date of data extraction:
9	November 23, 2023

Title; Year of publication; Lead author:

'Being Bipolar': A Qualitative Analysis of the Experience of Bipolar Disorder as Described in Internet Blogs; 2017; Mandla, A.

Country in which the study was conducted:

UK

Aim of the study:

To explore how individuals with bipolar disorder present the illness condition on the Internet.

Study design:

Qualitative research

Study methods:

Internet blogs of personal accounts of bipolar disorder that were accessible to the public were thematically analysed to produce relevant themes.

Study participants' description:

- Bloggers (n = 22) who self-identified as having bipolar disorder in the Internet blogs
- Gender: Female (n = 15); Male (n = 4); Unknown (n= 3)
- Age: 35 - 50 (n = 5); > 50 (n = 7); Unknown (n = 10)

Total number of participants:

22

Socio-environmental contexts used to understand self-regulation:

Individual	(SELF-ACCEPTANCE) - "Since I accepted my illness though, what was driving my personality and behaviours

	became obvious. Now I knew..." - "The bipolarity is me. The poles, the zero to the 100% on the scale are what I am, who I am, who I have always been." (SELF-MONITORING AND ACTIONS) - "I'm constantly monitoring my moods and my reactions and interactions; looking for signs and warnings that I'm losing control." - I'm aware of my moods, my thoughts, my medications and I track this everyday in my e-moods app I highly recommend tracking your mood..." (SELF-CARE) - "...adhering to a sleep routine...refraining from all drugs and alcohol, and ensuring I am doing my best to eat nutritiously and drink enough water. Exercising is also a key." (POSITIVE SELF/MINDSET CULTIVATION) - "We're able to grasp seemingly paradoxical ideas; think laterally; connect the dots between antithetical concepts..., I'm more intuitive, I have the energy to do things and the focus to complete them." - "These 'bipolar' abilities were thought to provide 'an edge over others in certain areas at certain times.'" - "I built my identity on being the super energetic, extremely empathic, driven, passionate person." (SELF-INITIATION) - "I learned to create my wellness..." - "...I realized the people and activities I surrounded myself with were no longer enough to sustain my growth and new state of consciousness. So I made the decision to leave my marriage and separate myself from the vast majority of the people and activities I had once given all my time and energy to." (SELF-LEARNING) - "...Each time, I learn more about what may have caused it (in these cases, stress, both mental and physical, is a major factor!)."
Microsystem	None
Mesosystem	None

Exosystem	(INFLUENCE FROM INTERNET/CYBERSPACE/SOCIAL MEDIA) - "...I track this everyday (moods, thoughts, medications) in my e-moods app...there are lots of great apps out there."
Macrosystem	None

Other related terms indicating self-regulation:

Self-management

Other results (if relevant):

Themes generated by the authors after data analysis:
a) "From one extreme to another"
b) Monster vs. me"
c) "You can say I have failed"
d) "The monster had a name"
e) "Self-monitoring"
f) "Bipolar brain"
g) "Life experiences"
h) "Medication was key to normality"
i) "Negative effects of medication"
j) "Rebuild myself"

Challenges related to self-regulation (if any):

Individual	(SELF-STIGMA/FEAR/ILLNESS CONCEALMENT) - "I had a monster within me...managing the monster was exhausting...my greatest fear was that I WAS the monster." (FUNCTIONAL/WORK IMPAIRMENT) - "Difficulty in managing work or school responsibilities..." - "I flunked out of school the year before (I now know it was because of bipolar disorder, but was truly confused at the time)." (SELF-DISTRUST/DEGRADATION) - "...for being 56, I am disappointed." - "You can say I have failed." (LOSS OF ILLNESS-/SELF-CONTROL) - "Some bloggers...described a constant "struggle"...against their BD, which they felt unable to control…" (NEGATIVE PERCEPTION OF TREATMENT/TREATMENT SIDE EFFECTS)

	- "Here I am, stoned out of my mind, a constant general malaise, and barely able to function." - Medicine that stole my personality and very being."
Microsystem	(SOCIAL STRESSORS) - "Commonly cited stressors included family problems, work or academic pressures…"
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

The bipolar disorder concept presented by the bloggers is broader and more inclusive than the traditional concept that is aligned with the clinical diagnosis of bipolar disorder.

Reviewer's comments (if any):

-

Study ID:	Date of data extraction:
10	November 24, 2023

Title; Year of publication; Lead author:

Help-seeking strategies and treatment experiences among individuals diagnosed with Bipolar Spectrum Disorder in Iran: A qualitative study; 2023; Mianji, F.

Country in which the study was conducted:

Other: Iran

Aim of the study:

To examine help-seeking strategies and treatment experiences among individuals with bipolar disorder in Iran.

Study design:

Qualitative research

Study methods:

Semi-structured interviews were conducted with individuals diagnosed with bipolar spectrum disorder.
McGill Illness Narrative Interview was used for data collection.
Data were analysed using thematic coding strategies.

Study participants' description:

The study was part of a larger study in which the description of the population in this study was described in another paper.
The only population description given in this paper was that those aged between 18-55 years old who received a diagnosis of bipolar spectrum disorder (excluding bipolar type 1).

Total number of participants:

37

Socio-environmental contexts used to understand self-regulation:

Individual	(SELF-CARE) - "...decided to help myself with heavy exercise, which helped, and I became fine after..." (SELF-INITIATIVE) - "I told them that I know I have these problems, and that's why I am seeking therapy." - "...I meant to continue the meds, but, at some point, I decided to help myself with exercise instead of meds, which again helped."
Microsystem	(HEALTHCARE PROVIDERS' SUPPORT) - "…I decided to follow that path and see a psychiatrist..."
Mesosystem	None
Exosystem	(INFLUENCE FROM INTERNET/CYBERSPACE/SOCIAL MEDIA) "...as well as reading self-help lessons (mostly through social media and satellite TV programmes)...to understand their psychological and interpersonal difficulties and obtain advice." - "...This time, when I was visiting a book exhibition...I saw a handbook of depression which recommended seeing a psychiatrist...I decided to see a psychiatrist..."
Macrosystem	(RELIGIOUS IDEOLOGY) - "In our society, when people cannot do anything more (feel helpless), they turn to spirituality...") - "The majority of participants in different cities mentioned religion and spirituality to be a strategy to cope with their emotional and psychological suffering..."

Other related terms indicating self-regulation:

Coping, Help-seeking

Other results (if relevant):

The interview data analysis by the authors resulted in the identification of two broad areas influencing the participants' mental health:
a) Coping and help-seeking strategies
b) Barriers to treatment and expectations of outcomes from treatment

Challenges related to self-regulation (if any):

Individual	(SELF-STIGMA/FEAR/ILLNESS CONCEALMENT) - "Due to the stigma of mental illnesses...participants expressed a preference to see a general practitioner or neurologist before considering visiting a psychiatrist or psychologist." - "...I dated a guy, but I stopped it so as not to have to tell him that I am bipolar, to avoid hearing from him that I am crazy..." (NEGATIVE PERCEPTION OF TREATMENT/TREATMENT SIDE EFFECTS) - "The main barriers to treatment...were stopping therapy because of the side effects of psychiatric medication and fear of medication dependency."
Microsystem	(SOCIAL STIGMA/DISCRIMINATION/EXCLUSION/ISOLATION) - "I never got the right reaction from people. In my workplace and other social circles, whenever I shared that I have a mood disorder and I take medication, I noticed people's view of me changed and they took it as my weakness and judged me..." (LIMITED/INEFFECTIVE HEALTHCARE PROVIDERS' SUPPORT) - "Participants reported that their psychiatric visits were too brief...focused only on inquiry about some of their symptoms, which left them feeling unheard, but carrying away prescriptions for multiple medications..." - "...I think she was a physician who got a psychotherapy permit...the therapist was religious. It was as if she was advising a religious person when she talked...It is ridiculous even to someone like me..." - "…clinicians projected their own values and ideological beliefs onto patients." - "I tried counselling a few times, but what I saw was more like a business than therapy...[A]fter a few sessions back and forth, they told me that I have severe anxiety or anger

	issues. I told them that I know I have these problems, and that's why I am seeking therapy." - "...lack of a therapeutic relationship due both to the brevity of visits and the lack of culturally informed practice." (LACK OF SOCIAL (FAMILY/FRIENDS) SUPPORT) - "...I am discussing something with my mom, not even fighting, and she immediately turns to me saying, "Go take your pill, you are not well, go to your bedroom." This means, you are crazy, you are sick. As soon as I hear this, I become that bipolar, I explode..."
Mesosystem	None
Exosystem	(LIMITED/SUBSTANDARD TREATMENT SERVICES) - "I went to see a neurologist because there is no control on [the quality of services of] counsellors..." - “The poor quality...problems with professional and scientific accountability of the services...” - "Despite frequently expressing the need and wish to talk to a professional...to receive help, the majority of our participants expressed dissatisfaction...in the psychological services...attributed to the... poor quality of these services.” - “The most commonly reported structural barriers that influenced help-seeking and adherence included...insufficient...psychotherapy and counselling services..." (HIGH TREATMENT COSTS) - "Their dissatisfaction was mainly attributed to the high costs...of these services."
Macrosystem	(RELIGION-RELATED ORDEAL/DIFFICULTY) - “One participant attributed her lack of interest in seeking help from religious clerics for mental health problems to not trusting their intentions, having been sexually approached by several clerics, and not having the power to confront them without getting into trouble." (NEGATIVE CULTURAL/SOCIETAL PERCEPTION OF MENTAL ILLNESS) - "...In Iran when you talk about psychiatrists and psychologists everyone thinks you are crazy..." -“[I]n this society, even if a person is open-minded, when they get angry, they will tell me that "you are crazy"..."

Author’s conclusion:

Help-seeking practices in Iran are influenced by the structure of the state's healthcare system and the availability and affordability of treatment options. The mental health treatment model should be person-centred, taking into account one's position in their cultural, social, economic, and ecological environments.

Reviewer’s comments (if any):
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Study ID:	Date of data extraction:
11	November 26, 2023

Title; Year of publication; Lead author:
'It's something that I manage but it is not who I am': reflections on internalized stigma in individuals with bipolar disorder; 2011; Michalak, E.
Country in which the study was conducted:
Canada
Aim of the study:
To explore self-management strategies by high-functioning individuals with bipolar disorder.
Study design:
Qualitative research
Study methods:
- Potential participants were screened using the MINI International Neuropsychiatric Interview to confirm bipolar disorder diagnosis. - Multidimensional Scale of Independent Functioning (MSIF) was used to determine the functioning and disability level. - Interview was conducted according to the participant's preference, i.e., via one-to-one or focus group. - Interview data were thematically analysed
Study participants’ description:
- Gender (Female, n = 20; Male, n = 12) - Age (Mean) = 41.1 (s.d. = 13.3) - Bipolar type (I, n = 25; II, n = 7) - Depressive episodes (Mean): 14.79 (s.d. = 15.94) - Manic episodes (Mean): 8.3 (s.d. = 18.40) - Hospitalisations (Mean): 3 (s.d. = 4.64) - Ethnicity (Caucasian, n = 25; non-Caucasian, n = 7) - HDRS (Mean) = 8.03 (s.d. = 9.20) - YMRS (Mean) = 2.45 (s.d. = 3.00) - Q-LES-S- Overall life satisfaction (median) = 4 (range = 4) - Job status (With, n = 16; Without, n = 16) - SAS (Mean score) = 1.76 (s.d. = 0.44)
Total number of participants:
32

Socio-environmental contexts used to understand self-regulation:

Individual	(POSITIVE SELF/MINDSET CULTIVATION) - "Getting a label doesn't mean it defines you...I have bipolar disorder, it's something that I manage but it is not who I am." - "So, I don't think of myself as [a] bipolar person anymore. I just think of myself [as someone] who went through something..." - "...I think it's actually a strength if you can go through something like that and come out on the other side..." (SELF-DISCLOSURE) - "...whenever I've disclosed...it's been more of an empowering thing because it's something you've come through and become stronger by." - "I definitely get better services by disclosing it... I use it to my advantage." - "...I'm very open about my episode and talking of bipolar..." - ...whenever I've disclosed...it's been more of an empowering thing because it's something you've come through and become stronger by." (SELF-ACCEPTANCE) - "Okay, I got bipolar illness...it was that coming out and telling people...I allowed myself to realise that I am bipolar." - "...I have come slowly to an awareness that...I'm not so different from any other people." - "When I first got my diagnosis, I felt like I was defective, but it doesn't really define me anymore. I don't let it..." - "So I don't think of myself as [a] bipolar person anymore. I just think of myself [as someone] who went through something..." - "…I have come slowly to an awareness that...I'm not a freak and I'm not so different from any other people." - "...Bess discussed her evolution...towards a more positive view of self where she was 'not ashamed about it...not anymore'." (SELF-RESPONSIBILITY/ACCOUNTABILITY) - "...just managing life in general, just being a mom and a teacher and a wife and a homemaker..."

Microsystem	(SOCIAL (FAMILY/FRIENDS) SUPPORT) - "'You see once people know you and love you and they find that you have it, they're not going to change their opinion'". "'It's been a source of support if they know [about BD] and they've just been treating me the same.'" (OTHER SERVICE PROVIDERS' SUPPORT) - "…when I talked to the woman at the EI [employment insurance office]...then she could understand my situation with compassion and that helped me get better services…" (HEALTHCARE PROVIDERS SUPPORT) - "...That was the handy label that they put on it because that's how [it]helped the professional to treat me and the treatment certainly helped."
Mesosystem	None
Exosystem	(INVOLVEMENT AND ENGAGEMENT WITH WORK OR ORGANISATIONAL COMMUNITY) - "My first coming out of the closet happened rather dramatically with my having a nervous breakdown in school when I was a teacher...It was the best thing that ever happened to me...because now I could be sick in public and not worry about it."
Macrosystem	None

Other related terms indicating self-regulation:

Self-management

Other results (if relevant):

Thematic analysis of the interview data identified 4 themes:
a) Expectations and experiences
b) Sense of self/identity
c) Judicious disclosure
d) Moving beyond internalised stigma

Challenges related to self-regulation (if any):

Individual	(SELF-STIGMA/FEAR/ILLNESS CONCEALMENT) - "Oh, [it] defined me, yeah...I walked around thinking everybody could see, like "oh, I have mental illness"..." - "I had a huge amount of internal stigma, and walked

	around like 'Oh god, everybody knows,' you know, and felt like a loser. I went into a huge depression around it, felt like I was inadequate." - "Oh, I have a mental illness! There's something wrong with me. Now no one will ever want me...feeling very flawed..." - "...So, I walked around thinking everybody could see, like "oh, I have mental illness"...an internalized stigma or an internalized shame...walking blemish, you know..."
Microsystem	(SOCIAL STIGMA/DISCRIMINATION/EXCLUSION/ISOLATION) - "Nobody looks twice at you if you have diabetes, but if you have a mental disorder, then you're crazy." - "But my family will continue for the rest of their lives to judge me for it [the BD diagnosis]...people will use that against you for the rest of your life." - "They [the public] think you're homeless, picking pop cans, in and out of Riverview [a psychiatric hospital] you know, dangerous, violent, running around deranged." - "People look down their nose at me. Attributing any time that I'm happy or any time that I'm sad to being bipolar. And it's not me...being defined as bipolar, instead of me being defined as having bipolar." (LACK OF SOCIAL (FAMILY/FRIENDS) SUPPORT) - "...I was just told that my grandmother had the same problem, she will understand. But...then, it was understood that I would never ever mention that issue again."
Mesosystem	None
Exosystem	(NEGATIVE SOCIAL MEDIA REPRESENTATION OF MENTAL ILLNESS) - "I think there's...media images of bipolar which totally don't relate to my reality. Frequently I'll be watching a TV show and usually it's about some psychopathic murderer and they are defining him as bipolar..."
Macrosystem	(NEGATIVE CULTURAL/SOCIETAL PERCEPTION OF MENTAL ILLNESS) - "...But as far as society, very few people know...because of the stigma attached." - "In the Chinese community I would say these mood disorders aren't really recognised. It's either you're crazy or you're not."

Author's conclusion:

The study revealed that individuals with bipolar disorder did not passively agree nor accept the label or its associated stigma.

Reviewer's comments (if any):
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Study ID: 12	Date of data extraction: November 26, 2023
Title; Year of publication; Lead author: Self-Management Strategies Used by 'High Functioning' Individuals with Bipolar Disorder: From Research to Clinical Practice; 2011; Murray, G.	
Country in which the study was conducted: Canada	
Aim of the study: To determine self-management strategies by high-functioning individuals with bipolar disorder and to relate these in a clinical perspective.	
Study design: Qualitative research	
Study methods: - Potential participants were screened using the Mini-International Neuropsychiatric Interview (MINI) and the Multidimensional Scale of Independent Functioning (MSIF) along with other inclusion criteria for the study. - Measures used: i) Young Mania Rating Scale (YMRS) ii) Hamilton Depression Rating Scale (HAM-D) iii) Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q) iv) Social Adjustment Scale - Qualitative semi-structured interviews using individual or group format (chosen by participants)	
Study participants' description: - Gender (Female, n = 20; Male, n = 12) - Bipolar type (I, n = 25; II, n = 7) - Mean age (s.d.) = 41.1 (13.3) - Mean # of depressive episodes (s.d.) = 14.79 (15.94) - Mean # of manic episodes (s.d.) = 8.3 (18.40) - Mean # of hospitalisations (s.d.) = 3 (4.64) - Mean HAM-D score (s.d.) = 8.03 (9.20) - Mean YMRS score (s.d.) = 2.45 (3.00) - Overall life satisfaction score from Q-LES-Q (median [range]) = 4 (4) - Job status (With, n = 16; Without, n = 16)	
Total number of participants: 32	
Socio-environmental contexts used to understand self-regulation:	

Individual	(SELF-CARE) - "When I'm down I don't eat heavy foods. I eat lighter foods, I eat more meals, smaller meals, higher energy meals, quicker to digest meals." - "A fair amount of cardio, I used to run the marathons to help keep my mania down. Now I just do cardio at the gym and I mix it up..." - "Exercise regularly, get enough sleep, and eat health balanced diet...It sounds really boring...but being active really works for me." (SELF-DISCIPLINE) - "I guess another boundary I set is sleep. That I make sure that I get to bed by 10.30-11.00 every night. And a routine is really important..." - "I will just become more diligent about exercise, eating right, more sleep..." - "I have never had to use my actual crisis plan because I do my maintenance and it seems like the more well I am, the easier it is to be well." (SELF-MONITORING AND ACTION) - "...I wouldn't say that I've been absolutely symptom-free but managing, learning to self-monitor." - "I'm always looking at my mood." - "I keep myself in check...so I try to just keep myself calm and always think before I act." (SELF-HELP/ENJOYMENT/RELAXATION ACTIVITIES) - "Walking by the sea is something that I try to do...I consider that a very important part of my overall balance, is the walking." - "...I have to be able to get it out, because I haven't really got anybody that I can actually to talk to about this, and if I can write write everything down, then I can get everything that I need to out...So, with being able to do that, then it's a sense of relief." (SELF-REFLECTION) - "When I feel bad, then I write everything down. My emotions, and what it's directed to..." (SELF-PLANNING) - "If I have three days in a row where I've just kind of felt down and blue, then I pull out my wellness plan and I look and it usually will kind of help me out in that time..." -"...I guess reassign priorities. So that if I have a lot on my plate of things I wanted to get

	done, get rid of a few of them... So you that can focus on what needs to be done..." (SELF-AWARENESS) - "It's like a motor slowly turning off in my body." - "...If there are over 9 things on my "To-do" list, that's a danger sign...if there is no "To-do" list, that means I'm heading for depression." (SELF-LEARNING) - "I've learned my early warning signs [and] I make minor adjustments." (SELF-ADJUSTMENT) - "...Or when you're driving, you're sort of correcting as you're trying to drive in a straight line. So those were the things that I see, and then I make minor adjustments and hopefully I don't have to make major adjustments because I've been always making these corrections." (SELF-INITIATION) - "..., so I'm making sure everybody else had resources, and also other people would also feed back information to me." - "...So what I've noticed is that when I have a bit more outward kind of motivation and movement and being involved in the world in helping other people...that's really helpful in terms of keeping balanced in my own life."
Microsystem	(MENTAL HEALTH PEER SUPPORT) - "There's a regular bipolar group which I've been attending...I'm just thrilled. They are very open...If you need help..., they provide that help." (SOCIAL (FAMILY/FRIENDS) SUPPORT) - “I think my husband is really important because he will notice a depressive episode coming on before I will...He makes me aware of it..." - "Hanging out with friends is a big one, just have that down time. Just being yourself with people you're comfortable with, probably helps me keep well." (HEALTHCARE PROVIDER'S SUPPORT) - "I see my psychiatrist one or two times a year...he's available by email or phone anytime...I have that as a resource..." - "...the mental health counsellor gave me some good resources..."

Mesosystem	None
Exosystem	(INFLUENCE FROM INTERNET/CYBERSPACE/SOCIAL MEDIA) - "Reading lots of books, on the Internet... " - "I see my psychiatrist one or two times a year. And he's available by email or phone anytime I feel that it's needed. So I have that as a resource..." (INVOLVEMENT AND ENGAGEMENT WITH WORK OR ORGANISATIONAL COMMUNITY) - "...I've noticed is that when I have a bit more outward kind of motivation and movement and being involved in the world in helping other people...giving of my time, and energy, that's really helpful in terms of keeping balanced in my own life." - "...Eventually I ended up being the chairperson of the bipolar disorder group..."
Macrosystem	None

Other related terms indicating self-regulation:

Self-management, Self-monitoring, Self-awareness; Self-expertise

Other results (if relevant):

Based on the interview data collected, the researchers identified six self-management approaches by well-functioning individuals with bipolar disorder:
a) Sleep, rest, diet, and exercise
b) Ongoing monitoring
c) Reflective and meditative practices
d) Understanding bipolar disorder and educating others
e) Connecting with others
f) Enacting a plan

Challenges related to self-regulation (if any):

Individual	None
Microsystem	None
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

Management strategies used by well-functioning individuals with bipolar disorder overlapped with the existing psychosocial clinical interventions.
Reviewer's comments (if any): -

Study ID: 13	Date of data extraction: November 27, 2023
Title; Year of publication; Lead author: Beyond symptom monitoring: Consumer needs for bipolar disorder self-management using smartphones; 2017; Nicholas, J.	
Country in which the study was conducted: Australia	
Aim of the study: To investigate the use of smartphone apps for self-management among young adults with bipolar disorder.	
Study design: Cross-sectional study	
Study methods: Online survey was conducted among individuals with bipolar disorder. Qualitative and quantitative questions were used, and the data collected were analysed using descriptive statistics and thematic analysis.	
Study participants' description: Gender: (Female, n = 77; Male, n = 12) Mean age (s.d.): 24 (3.9) Employment: - Employed (full-time/part-time): 42 - Unemployed: 25 - Full-time student: 22 Mean age of bipolar disorder diagnosis (s.d.): 21.2 (4.5)	
Total number of participants: 89	
Socio-environmental contexts used to understand self-regulation:	

Individual	(SELF-CARE) - "Management of sleeping patterns"

	- "Doing regular exercise" - "Eating a healthy-balanced diet" - "Minimising or avoiding the use of caffeine, alcohol, and drugs" (SELF-MONITORING AND ACTION) - "Paying close attention to moods and activities so that I can understand personal behaviour patterns, recognise episode triggers, and early warning signs" - "Trying to maintain a stable day-to-day routine" (SELF-PLANNING) - "Having a wellness or stay-well plan, which outlines strategies to prevent an episode if early signs are detected" (SELF-REFLECTION) - "Meditative, reflective, or mindfulness practices" - "Writing or keeping a journal or mood calendar" (SELF-LEARNING) - "Learning about BD" (SELF-INITIATION) - "Actively managing stress" (SELF-DISCLOSURE) - "Educating others about BD" (TREATMENT ADHERENCE) - "Taking or attending treatment as directed" (SELF-HELP/ENJOYMENT/RELAXATION ACTIVITIES) - "Focusing on creative activities or projects" (SELF-EXPLORATION) - "Trying out new roles/activities to replace those that I have lost (e.g., volunteering if unable to work" (SELF-ACCEPTANCE) - "Accepting and understanding the diagnosis of BD" (POSITIVE SELF/MIDSET CULTIVATION) - "Finding ways to view BD as only part of who I am" (SELF-AVOIDANCE/ISOLATION) - "Isolating myself from others"

Microsystem	(HEALTHCARE PROVIDERS' SUPPORT) - "Contacting my healthcare provider when the need arises" (SOCIAL (FAMILY/FRIENDS) SUPPORT) - "Talking to friends/peers" - "Contacting members of my support network, including supportive family and friends" (MENTAL HEALTH PEER SUPPORT) - "Getting to know/meeting with other people who have BD"
Mesosystem	None
Exosystem	(INFLUENCE FROM INTERNET/CYBERSPACE/SOCIAL MEDIA) - "Using the Internet for support (e.g., forums, message boards"
Macrosystem	None

Other related terms indicating self-regulation:

Self-management

Other results (if relevant):

More than 90% of participants used a smartphone daily. Of those, 40% used apps for bipolar disorder. More than 60% who used the apps for bipolar disorder found that they were helpful particularly in the areas related to sleep management, plans to stay well, and understanding bipolar disorder warning signs and triggers.

Challenges related to self-regulation (if any):

Individual	None
Microsystem	None
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

Young adults with bipolar disorder are interested in the apps for self-management but are likely to be underutilised. Strategies to disseminate the apps and their work features must match the consumer needs.

Reviewer's comments (if any):

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Study ID: 14	Date of data extraction: November 29, 2023
Title; Year of publication; Lead author: Self-management in young adults with bipolar disorder: Strategies and challenges; 2017; Nicholas, J.	
Country in which the study was conducted: Australia	
Aim of the study: To explore self-management strategies and related challenges among young adults with bipolar disorder.	
Study design: Cross sectional study	
Study methods: An online survey was created and delivered via a research engine that ensured anonymous administration. Self-management data were collected in the form of self-reports and ratings of literature-derived strategies. Data were analysed using descriptive statistics and thematic analysis.	
Study participants' description: Gender: (Female, n = 77; Male, n = 12) Mean age (s.d.): 24 (3.9) Employment: - Employed (full-time/part-time): 42 - Unemployed: 25 - Full-time student: 22 Mean age of bipolar disorder diagnosis (s.d.): 21.2 (4.5)	
Total number of participants: 89	
Socio-environmental contexts used to understand self-regulation:	
Individual	(SELF-INITIATION) - "Actively managing stress" - "Trying to get out of bed and do one activity a day, like grocery shopping"

		(SELF-EXPLORATION) - "Trying out new roles/activities to replace those that I have lost (e.g., volunteering if unable to work)" (TREATMENT ADHERENCE) - "Taking or attending treatment as directed" - "...the strategies rated most helpful for managing the disorder were treatment adherence or attendance (89%)..." (SELF-DISCLOSURE) - "Educating others about BD" (SELF-HELP/ENJOYMENT/RELAXATION ACTIVITIES) - "Focusing on creative activities or projects" - "Try to do things that I enjoy, if not merely keeping myself occupied" - "Use CBT skills, such as the 'rational' and 'emotional' mind, mindfulness and the 'choice point'" - "Self-help strategies for me; books, writing, art, listening to music..." - "Meditation and relaxation practices" (SELF-LEARNING) - "Learning about BD" - "Self-management strategies were most often learned or developed from experience (84%)..." - "...the strategies rated most helpful for managing the disorder were...learning about the disorder (87%)..." (SELF-CARE) - "Management of sleeping patterns" - "Aim to get 8hrs sleep each night..." - "Doing regular exercise" - "Eating a healthy-balanced diet" - "Minimising or avoiding the use of caffeine, alcohol, and drugs" - "...the strategies rated most helpful for managing the disorder were...sleep management (86%)." (SELF-MONITORING AND ACTION) - "Paying close attention to moods and activities so that I can understand personal behaviour patterns, recognise episode triggers, and early warning signs" - "Monitoring smartwatch (Change in activity or sleep most accurately predictors of future mood changes)"

	- "Trying to maintain a stable day-to-day routine" (SELF-ACCEPTANCE) - "Accepting and understanding the diagnosis of BD" - "Finding ways to view BD as only part of who I am" - "The most commonly endorsed strategies were diagnosis acceptance (98%)..." (SELF-REFLECTION) - "Meditative, reflective, or mindfulness practices" - "Writing or keeping a journal or mood calendar" - "Write a diary that describes moods and what's happening in my life at that time (helps to track episodes and become more self-reflective)" (SELF-PLANNING) - "Having a wellness or stay-well plan, which outlines strategies to prevent an episode if early warning signs are detected" (SELF-AVOIDANCE/ISOLATION) - "The most commonly endorsed strategies were...social isolation (97%)..." - "Isolating myself from others" - "Remove myself from stimulation (noise, lights, people)"
Microsystem	(HEALTHCARE PROVIDERS SUPPORT) - "Contacting my healthcare provider when the need arises" (SOCIAL (FAMILY/FRIENDS) SUPPORT) - "Talking to friends/peers" " Letting family/partner know so that they can help to ensure I'm engaging in safe behaviour and assisting with moderation" - "The most commonly endorsed strategies were...support network contact (96%)." "Talking or contacting friends or seeking support from partners or family were the main avenues of social support." - "Doing 'normal person' things like catching up with friends" - "Contacting members of my support network, including supportive family and friends" (MENTAL HEALTH PEER SUPPORT)

	- "Getting to know/meeting with other people who have BD"
Mesosystem	None
Exosystem	(INFLUENCE FROM INTERNET/CYBERSPACE/SOCIAL MEDIA) - "Using the Internet for support (e.g., forums, message boards)" - "The leading source of advice about self-management was the Internet (49%)..."
Macrosystem	None

Other related terms indicating self-regulation:

Self-management

Other results (if relevant):
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Challenges related to self-regulation (if any):

Individual	(LACK OF ILLNESS KNOWLEDGE/UNDERSTANDING) - "unable to recognise whether moods are normal or abnormal" (FUNCTIONAL/WORK IMPAIRMENT) - "It is highly disruptive to my life and sometimes makes me feel discouraged about my future and feel that I'll never have a normal life" - "Disruption of work/study due to symptoms" (LOSS OF ILLNESS-/SELF-CONTROL) - "The constant state of harmony that is required for me to be well, related to: eating right, getting ample sleep, levels of stress etc. If one of these falls short, I fall in to a depressive state." - "Managing disorder and continuation of management when unwell" (SELF-STIGMA/FEAR/ILLNESS CONCEALMENT) - "have to hide it from my friends" - "…also fears about progressing on my career path..." - "Fear of stigmatisation"
Microsystem	(LACK OF ILLNESS KNOWLEDGE/UNDERSTANDING FROM OTHERS) - "making people understand why I do the things that I do...and not ruining my relationship with my fiance"

	- "Lack of understanding from others" (SOCIAL STIGMA/DISCRIMINATION/EXCLUSION/ISOLATION) - "Stigma from people who do not understand..." - "Feelings of isolation"
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

Young adults with bipolar disorder are not adequately utilising the strategies which are reported useful by those successfully managing their bipolar disorder.

Reviewer's comments (if any):

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Study ID:	Date of data extraction:
15	November 30, 2023

Title; Year of publication; Lead author:

Inpatient Self-Management of Bipolar Disorder; 1996; Pollack, L. E.

Country in which the study was conducted:

United States

Aim of the study:

To investigate illness self-management among hospitalised individuals with bipolar disorder.

Study design:

Qualitative research

Study methods:

Semi-structured interviews were conducted on the hospitalised patients with bipolar disorder. The focus of the interview was on self-management by hospitalised bipolar disorder patients. Data collection and analysis were informed by grounded theory methodology.

Study participants' description:

Gender: (Female, n = 20; Male, n = 13)
Average age: 35 (range: 20 - 57)
Average days of current hospitalisation: 23
Number of hospitalisation: (One, n = 4; Two-to-three, n = 13; More than three, n = 16)

Total number of participants: 33
Socio-environmental contexts used to understand self-regulation:

Individual	(SELF-AWARENESS/EVALUATION) - "Re-evaluate" - "Assess self" (SELF-DISCIPLINE) - "Follow schedule" (SELF-DETERMINATION/PERSEVERANCE) - "Keep trying" (POSITIVE SELF/MINDSET CULTIVATION) - "Work around it" - "Take things slower" - "Cool down/start over" - "Just live" - "Have a positive attitude" - "Enjoy life" - "Value self" - "Want to be well" - "Create enjoyment for self" - "Look for good in others" - "Don't be hard on self" - "Be open-minded" - "Don't let things get to you" (SELF-DISCLOSURE) - "Selective disclosure" (SELF-CARE) - "Run (exercise)" - "Maintain physical health" - "Stay active" - "Exercise" - "Avoid substance use" (TREATMENT ADHERENCE) - "Take medication" - "Follow professional advice" (SELF-PLANNING) - "Set goals" - "Schedule interaction time" - "Set daily goal" (SELF-LEARNING)

	- "Learn about the disorder" - "Read" - "Learn from others with disorder" - "Learn from others' experiences" (SELF-INITIATION) - "Seek information" - "Strive for normalcy" - "Try to help self" - "Think" - "Structure self" - "Function" - "Discuss disorder" - "Change appearance" - "Practice what reading" - "Educate family" - "Manage stress" - "Seek treatment" - "Manage anger" - "Have goals" - "Fight denial" (RELIGIOUS BELIEFS/PRACTICES) - "Pray" - "Go to church" - "Seek spiritual strength" - "Seek spiritual guidance" (SELF-ACCEPTANCE) - "Accept your disorder" (SELF-AVOIDANCE/ISOLATION) - "Avoid society when needed" - "Hide feelings" - "Withdraw when depressed"
Microsystem	(MENTAL HEALTH PEER SUPPORT) - "Attend bipolar group" - "Join groups" (SOCIAL (FAMILY/FRIENDS) SUPPORT) - "Maintain relationships" - "Seek supportive others" - "Seek information from others" - "Seek support" - "Talk with people" (HEALTHCARE PROVIDERS' SUPPORT) - "Be honest with psychiatrist" - "Therapy/counseling" (SUPPORTING/HELPING OTHERS) - "Help others"

Mesosystem	None
Exosystem	None
Macrosystem	None

Other related terms indicating self-regulation:

Self-management, Self-assessment, Self-initiation

Other results (if relevant):

Data collected and analysed revealed three areas important to understanding self-management from the perspective of hospitalised individuals with bipolar disorder:
a) factors affecting self-management
b) patient-initiated self-management interventions
c) information deemed by the participants to be important for other people with bipolar disorder

Challenges related to self-regulation (if any):

Individual	(SELF-DISTRUST/DEGRADATION) - "Shame" - "Low self-esteem" - "Not wanting to be a burden" - "Believing can't get well" - "Feeling sorry for self" - "No reason to live" - "No self-interest" - "Lack of motivation" - "Giving up too soon" - "Not trying to do best” (NEGATIVE PERCEPTION OF OTHERS) - "Abusing others" - "Blaming others" (SELF-DENIAL/IGNORANCE) - "Denial" - "Ignorance" (MEDICATION/SUBSTANCE ABUSE) - "Medication abuses" - "Substance abuses" (LOSS OF ILLNESS-/SELF-CONTROL) - "Fears" - Depression" - "Instability" - "Being suicidal" - "Unable to cope with the disorder" (NEGATIVE PERCEPTION OF

	TREATMENT/TREATMENT SIDE EFFECTS) - "On wrong medication" - "Medication side effects" (RESTRICTIONS IMPOSED) - "Having freedoms taken away"
Microsystem	(LACK OF SOCIAL (FAMILY/FRIENDS) SUPPORT) - "Sharing wrong knowledge with wrong people" - "Family attitudes" - "Being abused"
Mesosystem	None
Exosystem	(HOUSING FACILITY ISSUES) - "Poor living arrangement"
Macrosystem	(RELIGION-RELATED ORDEAL/DIFFICULTY) - "No spiritual support"

Author's conclusion:

Understanding the self-management of individuals with bipolar disorder is important to strategy development to help reduce and potentially prevent illness relapses.

Reviewer's comments (if any):

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Study ID:	Date of data extraction:
16	December 1, 2023

Title; Year of publication; Lead author:

Inpatients with Bipolar Disorder: Their Quest to Understand; 1996; Pollack, L. E.

Country in which the study was conducted:

United States

Aim of the study:

To develop a grounded theory of the self-management informational needs and activities of hospitalised people with bipolar disorder.

Study design:

Qualitative research

Study methods:

Semi-structured interviews were conducted on the hospitalised patients with bipolar disorder. Data collection and analysis were informed by grounded theory methodology. The interviews focussed on the participants' informational needs, self-management, understanding bipolar disorder, managing daily life, living in society, relating to others, and relating to self. The data analysis here examined the information-seeking activities by the participants.

Study participants' description:

Gender: (Female, n = 20; Male, n = 13)
Average age: 35 (range: 20 - 57)
Average days of current hospitalisation: 23
Number of hospitalisation: (One, n = 4; Two-to-three, n = 13; More than three, n = 16)

Total number of participants:

33

Socio-environmental contexts used to understand self-regulation:

Individual	(SELF-INITIATION) - "...I just stand up for myself...whatever I need, if I need what's on the other side, I'm going to get it myself." - "To help oneself" - "...make intrapersonal efforts" - "Make intrapersonal efforts" (SELF-LEARNING) - "...to pick up some forms, some information booklets, so that I can, you know, read..." - "The only thing I did was read up on what I could find..." - "Just knowing that I have learned more than what I knew before makes me know that it was successful." - "Keep informed" - "Study normalcy" - "...to know its cause and how to deal with the disorder" - "Read, write, listen" - "Read" - "...research normalcy" - "Seek...life-training courses" (SELF-AWARENESS/EVALUATION) - "Relating with self makes it easier to relate with others" (POSITIVE SELF/MINDSET CULTIVATION) - "… I am a normal person...not a handicap as

	long as I do take my medication...I can go on with my life just like any other person." - "Look to role models" (SELF-CONTROL) - "It's a lot easier for me to take control of my life than it is to have somebody else run it for me..." (SELF-DETERMINATION/PERSEVERANCE) - "… I feel like I have more incentive to keep trying. And if I do hit a barrier...then try again later..." (TREATMENT ADHERENCE) - "...take medication" (RELIGIOUS BELIEFS/PRACTICES) - "Pray..." - "Pray" - "Seek spiritual help..." (SELF-ACCEPTANCE) - "Accept severity of disorder" - "Acceptance of illness" - "Begin to like self' (SELF-DISCIPLINE) - "Structure self..." (SELF-ASPIRATION) - "Wants normalcy, to reach goals, to understand" - "Wants responsibility for self, a better life" - "Wants balance/normalcy..." - " Wants to change, stability" - "Desire and will to live, to be productive" - "Wants to change, to live in society" - "...to fit in and give back" - "Wants relationships with others, to be a part of society, to prevent hospitalization" - "Wants to change, normalcy, to get rid of anger"
Microsystem	(MENTAL HEALTH PEER SUPPORT) - "I've asked other bipolar patients how they feel...what do they mean when they say that manic episodes...that they can tell when one's coming on...how do you know what's the size of one coming on?" - "Ask others with disorder" - "Talk with others with the disorder, or with family members of people with disorder"

	(SUPPORTING/HELPING OTHERS) - "...just being able to help him helped me become more aware...I was telling him and I was hearing it for myself, and I became more aware, and I started acting upon what I was saying." (HEALTHCARE PROVIDERS' SUPPORT) - "...I've also learned by talking to my doctors and asking them questions about bipolar disorder..." - "The nurses have talked to me. There is one nurse who has talked to me and she has given me such a wide, much larger insight into this" - "Seek professional help, hospitalization..." - "...ask professionals" - "Seek support, professional help" - "Ask professionals"
Mesosystem	(INTERACTION AND ENGAGEMENT IN SUPPORT GROUPS) - "...when I am in the hospital, to go to the group. A manic-depressant [sic] group is very important..." - "Attend groups, observe and assess others"
Exosystem	(INVOLVEMENT OF LARGE ORGANISATIONAL/COMMUNITY SUPPORT SERVICES) - "...call the Mental Health...the Crisis Hotline, and talked to someone about it..." (INFLUENCE FROM INTERNET/CYBERSPACE/SOCIAL MEDIA) - "Learn from media..."
Macrosystem	None

Other related terms indicating self-regulation:

Self-management, Adaptive functioning, Learned resourcefulness

Other results (if relevant):
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Challenges related to self-regulation (if any):

Individual	(SELF-STIGMA/FEAR/ILLNESS CONCEALMENT) - "Fear of rejection, fear of being laughed at..."

	- "...fear of not being able to trust the information...because so little is known about what works per individual..." - "...fear of what's ahead...you don't know where you're going..." (SELF-DENIAL/IGNORANCE) - "refusal to admit that they're bipolar...They don't want to admit that there's something wrong with them."
Microsystem	(LIMITED/INEFFECTIVE HEALTHCARE PROVIDERS' SUPPORT) - "You'd be surprised how you can go to a psychiatrist, or go to a clinic that is set up for mental or emotional disorder, and you will just be put aside...you have the very real feeling of being rejected while trying to seek help." - "...the rejection of doctors when I ask them questions, and they act like the question is not so important." (LACK OF SOCIAL (FAMILY/FRIENDS) SUPPORT) - "When a person breaks and cuts you off and tells you, "We'll talk about that later," and every time you ask, he says, "I said we'll talk about that later."...they [sic] really don't want to talk about it at all."
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

Discussion needs to be made with individuals with bipolar disorder on how to obtain information about self-management, potential barriers related to the process of obtaining information, and responses to those barriers.

Reviewer's comments (if any):

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Study ID:	Date of data extraction:
17	December 7, 2023

Title; Year of publication; Lead author:

What works for people with bipolar disorder? Tips from the experts; 2010; Suto, M.

Country in which the study was conducted:

Canada

Aim of the study:

To examine self-management strategies used by high-functioning individuals with bipolar disorder.

Study design:

Mixed method

Study methods:

Potential participants were screened using the MINI International Neuropsychiatric Interview to confirm bipolar disorder diagnosis and the Multidimensional Scale of Independent Functioning (MSIF) to assess functioning levels for work, residential, and educational domains.
i) Quantitative
- measures used: Young Mania Rating Scale, Hamilton Depression Rating Scale (HAM-D 29), Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q), Social Adjustment Scale (SAS)
ii) Participants could choose either individual or group interviews. A semi-structured interview guide was used to guide the interview. Interviews were recorded and transcribed verbatim. Data were analysed using the thematic analysis method. Themes and subthemes were identified.

Study participants' description:

Gender: (Female: 20; Male: 12)
Bipolar type: (I: 25; II: 7)
Mean age (s.d.): 41.1 (13.3)
Mean # depressive episodes (s.d.): 14.79 (15.94)
Mean # manic episodes (s.d.): 8,3 (18.40)
Mean # hospitalisations (s.d.): 3 (4.64)
Job status: (With, n = 16; Without, n = 16)

Total number of participants:

32

Socio-environmental contexts used to understand self-regulation:

Individual	(SELF-MONITORING AND ACTION) - "...I'm very conscientious. I record the amount of sleep I get every night, so that I know exactly where I stand with it..." - "...Either you're eating too much or you are not eating enough...So you have to keep an eye on both sides of it." - "I'm more mindful. I keep a running commentary." - "I've learned my early warning signs [and] I make minor adjustments." (SELF-HELP/ENJOYMENT/RELAXATION

		ACITIVITIES) - "For me walking by the sea is the best therapy...I consider that a very important part of my overall balance, walking." - "I also do a lot of outdoor activities...I mountain bike, I hike, I run...The outdoors has really helped me." - "Other participants found that creative activities such as painting encouraged them to focus, stay well and gain insight into their actions." (SELF-CARE) - "The things that I need to do to stay in balance...exercise regularly, get enough sleep, and eat a healthy balanced diet." (SELF-DISCIPLINE) - "...I do at least 2 hours of exercise 5 days a week..." - "It's a lot of maintaining and you're constantly working on it." - "...I do my maintenance and it seems like the more well I am, the easier it is to be well." (SELF-REFLECTION) - "But what really allowed me to move and carry on from my episode was doing a lot of reflection and insight into myself..." - "...I often turn to journaling and I can get all the things that I'm thinking about out. It gets your thoughts down on paper and then you can look at them and think..." - "It's really just witnessing my thoughts and going 'oh look, self-hatred's coming up again..." (SELF-FORGIVENESS) - "...That was the thing- forgiving myself for things that I did during my episode and coming to terms with that..." (SELF-CONTROL) - "...if you are feeling high or something like that, you can say 'OK maybe I should hold back on talking for a bit.'" - "...So if I feel that way again, practicing that restraint..." (SELF-AWARENESS/EVALUATION) - "It's like a motor slowly turning off in my body" - "If there are over 9 things on my 'to-do' list, that's a danger sign...if there is no 'to-do' list that means I'm heading for depression"

	(SELF-PLANNING) - "If...I've just kind of felt down and blue, then I pull out my wellness plan and...will kind of help me out in that time..."
Microsystem	(WORKPLACE SUPPORT) - "The company itself does [affect my health] because they do have a fitness allowance and I'm encouraged to take classes...they're very proactive with all-around wellness." (SOCIAL (FAMILY/FRIENDS) SUPPORT) - "Spouses/partners were often mentioned as people who had learned the warning signs...and encouraged their loved one to initiate wellness strategies." - "So my support network, the people that are closest to me let me know that, 'OK, you haven't showered for three days'..." - "Meeting with friends, talking about how I'm doing, that's important..." (HEALTHCARE PROVIDERS' SUPPORT) - "I see my psychiatrist one or two times a year. And he's available by email or phone anytime I feel that it's needed. So I have that as a resource..."
Mesosystem	None
Exosystem	(INFLUENCE FROM INTERNET/CYBERSPACE/SOCIAL MEDIA) - "Well, some of the books were kind of self-help...it gave me more knowledge and helped me make choices and ask questions...and understand those things that happened to me in a new way..." (INVOLVEMENT AND ENGAGEMENT WITH WORK OR ORGANISATIONAL COMMUNITY) - "...So what I've noticed is that when I have a bit more outward kind of motivation and movement and being involved in the world, in helping other people or even just giving things away or giving of my time and energy, that's really helpful in terms of keeping balanced in my own life."
Macrosystem	None

Other related terms indicating self-regulation:

Self-management, Self-awareness, Self-monitoring

Other results (if relevant):

The analysed data generated six themes:
a) Sleep, rest, exercise, and diet
b) Ongoing monitoring
c) Enacting a plan
d) Reflective and meditative practices
e) Understanding BD and educating others
f) Connecting with others

Challenges related to self-regulation (if any):

Individual	None
Microsystem	None
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

The wellness strategies used by high-functioning individuals with bipolar disorder were in line with the proposed psychosocial interventions for bipolar disorder.

Reviewer's comments (if any):

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Study ID:	Date of data extraction:
18	December 13, 2023

Title; Year of publication; Lead author:

"Recovery" in bipolar disorder: How can service users be supported through a self-management intervention? A qualitative focus group study; 2012; Todd, N. J.

Country in which the study was conducted:

UK

Aim of the study:

To understand recovery and self-management among individuals with bipolar disorder, and to find out how their recovery can be supported.

Study design:

Qualitative research

Study methods:

Focus groups were used to conduct interviews with service users with bipolar disorder in the North West of England. Interviews were transcribed verbatim and thematic analysis was used to analyse the data to identify relevant themes.

Study participants' description:

Gender: (Male, n = 7; Female, n = 5)
Age: (Mean: 42; Range: 18 - 65)
Bipolar type: (I: 8; II: 4)
Employment: (Full-time: 6; Part-time/Voluntary: 4; Unemployed: 2)

Total number of participants:

12

Socio-environmental contexts used to understand self-regulation:

Individual	POSITIVE SELF/MINDSET CULTIVATION) - "...recognise the medical model and think outside it..." - "I regard the illness as a condition rather than an illness now as I am heading towards recovery..." - "I just thought having the right perspective is really good...to realise that there is perspective or chance of getting better and doing things better..." - "...you have to be able to dine out on your diagnosis...turning the symptoms of your illness to your advantage...having a better quality of life than your peers through your illness." - "...I am a strong person and I can get through this..." (SELF-ACCEPTANCE) - "You can't get rid of the illness, you have to acknowledge that it is there..." - "I am an expert because I have it for years..." (SELF-RESPONSIBILITY/ACCOUNTABILITY) - "I was just going to say that part of responsibility...anything you can do to help yourself..." (SELF-INITIATION) - "...I found things that help myself...I will do whatever it takes."

	- "...I have to go out and do it myself if I am going to have any chance" - "...I will try and force myself to pick up the phone and call someone or try and make a social commitment over the next few weeks..." - "...we do need something like this to be able to self-manage to make our own recovery..." - "...as long as the risk isn't too high, as long as you survive the risk, then do it, that is the way to self-management..." (SELF-PLANNING) - "...I was sort of sat there wondering what I need to do to get discharged." (SELF-LEARNING) - "...as I have got older I have got better at understanding what is going on..." - "I am recently diagnosed actually about 2 months ago...in the early stages of...trying to get medication right and that kind of thing..." - "...but now able to work and hold down a job for a considered period of years and I've learnt how to be in recovery..." (SELF-MONITORING AND ACTION) - "...I just check out 'are you talking too much?'...'Am I interrupting people?' and I do check myself..." (SELF-AVOIDANCE/ISOLATION) - "...sometimes I think 'yeh you did, you talked non-stop at that person'...so then I will avoid people for a bit..." (SELF-CARE) - "They also discussed the importance of exercise..." (SELF-HELP/ENJOYMENT/RELAXATION ACTIVITIES) - "...having something else to focus on...the ability to relax and unwind when manic." - "...enjoy things outside of work"
Microsystem	(SOCIAL (FAMILY/FRIENDS) SUPPORT) - "Family and friends were recognised as an additional means of support for managing their condition."
Mesosystem	None
Exosystem	(INFLUENCE FROM INTERNET/CYBERSPACE/SOCIAL

	MEDIA) - "...I went out and looked it up on the web, I bought books..."
Macrosystem	None

Other related terms indicating self-regulation:

Self-management, Coping

Other results (if relevant):

Data collected and analysed identified four key themes:
a) Recovery is not about being symptom-free
b) Recovery requires taking responsibility for your own wellness
c) Self-management: building on existing techniques
d) Overcoming barriers to recovery: negativity, stigma, and taboo

Challenges related to self-regulation (if any):

Individual	None
Microsystem	(LIMITED/INEFFECTIVE HEALTHCARE PROVIDERS' SUPPORT) - "I just think they are holding me back and I don't think they even encourage self-management...has been detrimental to be engaged with them for over two decades..." - "...for me personally it is self-deprecating...I feel sometimes when I engage with my CPN leader...rather than doing something to turn that round they can end up reinforcing it." (SOCIAL STIGMA/DISCRIMINATION/EXCLUSION/ISOLATION) - "...it's one of those things that's still taboo...keep it quiet, a bit embarrassing...CPN's and stuff have even told them to keep it secret that they've got Bipolar..." - "...people give you these 'oh it's a lifelong condition, you can't recover from it, you are never going to get rid of it'...and take that on very negatively."
Mesosystem	None
Exosystem	(LIMITED/SUBSTANDARD TREATMENT SERVICES) - "...because of the lack of care in the NHS you really have to after a while..."
Macrosystem	None

Author's conclusion:

The study results confirmed that recovery could be looked at from outside the medical model and that those affected can live with the illness symptoms by taking responsibility for their wellness using self-management techniques.
Reviewer's comments (if any): -

Study ID: 19	Date of data extraction: December 15, 2023
Title; Year of publication; Lead author: Expected possible selves and coping skills among young and middle-aged adults with bipolar disorder; 2014; Tse, S.	
Country in which the study was conducted: Other: China	
Aim of the study: To explore expected possible selves and coping skills among young and middle-aged adults with bipolar disorder in Hong Kong.	
Study design: Qualitative research	
Study methods: Narrative inquiry was used during the face-to-face interviews. The data was transcribed and analysed using the 7-step process. Themes and subthemes were identified.	
Study participants' description: Gender: (Male, n = 6; Female, n = 8) Age range: 22-65 Education level: a) Up until high school: 8 b) Up until degree: 6 Employment: (Employed: 5; Unemployed: 9) Mean age when first diagnosed with bipolar disorder: 26.9 (range: 15-55) Mean number of hospitalisations: 3.2 (range: 1-11)	
Total number of participants: 14	
Socio-environmental contexts used to understand self-regulation:	

Individual	(SELF-LEARNING) - "It is important to know what triggers the symptoms and to reduce the bad effects that are brought on by the symptoms..." - "...increasing the level of knowledge about the illness..." (SELF-ASPIRATION) - "I hope to treat my family members and friends better. I will no longer just care about myself, but also others. I want to have a better relationship with my family, so I will look after my parents..." - "Leave the hostel and apply for a single unit at public housing...be independent by myself when my mood (depression) gets better." - "I want to go back to the society and find a suitable job. I hope to earn money to support myself. I want to obtain public housing...Within half a year, I want to find a job...I hope to have enough money to support myself and maybe my own family...After retirement, I will do some financial investment and charity work..." (SELF-REFLECTION) - "Writing a blog: I type everything that I wanted to type...what happened to me...I created a story and typed it out..." (SELF-HELP/ENJOYMENT/RELAXATION ACTIVITIES) - "...engaging in cognitive restructuring, positive reappraisal, acceptance, or psychological distancing." - "They engaged in …watched movies...and painted." - "...walking frequently..." (SELF-PLANNING) - "...developing a list of people who can help when one becomes unwell..." (SELF-CARE) - "...we have to sleep early, not work for long hours at night, and take some specially prepared soup in order to stay healthy." (RELIGIOUS BELIEFS/PRACTICES) - "...meditated, listened to religious music and songs..."
Microsystem	(SOCIAL (FAMILY/FRIENDS) SUPPORT) - "...You can reduce the number of relapses by

	getting support from others." - "...gaining support from family (e.g. spouse, parents, or siblings)..." (HEALTHCARE PROVIDERS' SUPPORT) - "...seeking help from mental health professionals..."
Mesosystem	None
Exosystem	(INVOLVEMENT OF LARGE ORGANISATIONAL/COMMUNITY SUPPORT SERVICES) - "...accessing specific community support services such as vocational assistance." - "...attending lectures in public libraries..." (INFLUENCE FROM INTERNET/CYBERSPACE/SOCIAL MEDIA) - "...reading books to learn about BD...learning from the internet, studying information on medication packages..." (INVOLVEMENT AND ENGAGEMENT WITH WORK OR ORGANISATIONAL COMMUNITY) - "...as volunteers in health information centre...access the latest information."
Macrosystem	(CULTURAL NORM/PRACTICE) - "Consistent with Chinese cultural beliefs, many participants used a variety of practices and non-western traditions...acupuncture, a balanced diet, tai chi, qi gong, and Chinese tea to improve their sleep and bodily vitality." - "I went to the library and read books related to Chinese medicine..." (RELIGIOUS IDEOLOGY) - "...gaining support from religious activities or spiritual beliefs..."

Other related terms indicating self-regulation:

Coping, Self-help, Self-management

Other results (if relevant):

Interview data collected and analysed revealed the following three themes:
a) Expected possible selves from early to middle adulthood
b) The art of coping with bipolar disorder and achieving possible selves
c) Putting self-help methods into practice

Challenges related to self-regulation (if any):

Individual	(SELF-DISTRUST/DEGRADATION) - "...I have no children...I am 63 years old now. You tell me what I can do now. I can do nothing...I want to be a great man, but now I am a failure." (LACK OF ILLNESS KNOWLEDGE/UNDERSTANDING) - "I did not know what triggered my symptoms...I was not aware of the manic period...I did not know what triggered my manic symptoms, not to mention how to cope..." (LACK OF ILLNESS-/SELF-CONTROL) - "If I was in a manic state, I could not control myself." (MEDICAL/PHYSICAL ISSUES) - "...middle-aged adults spoke of experiencing such problems as chronic pain, mild stroke, and numbness..." (CONCURRENT PSYCHOLOGICAL CHALLENGES) - "...early adulthood described problems or complications related to personality difficulties, substance abuse, post-traumatic stress, and anxiety." (NEGATIVE PERCEPTION OF TREATMENT/TREATMENT SIDE EFFECTS) - "I enjoyed my manic state...I would not find ways to manage my manic state because I would not hurt myself."
Microsystem	(LACK OF SOCIAL (FAMILY/FRIENDS) SUPPORT) - "I find that my family experience still hurts me. They betrayed me in the past; they called the police when I did not follow their instructions."
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

The possible selves concept has been proven as an important motivating factor that helps shed light on the coping strategies used by individuals with bipolar disorder.

Reviewer's comments (if any): -

Study ID: 20	Date of data extraction: December 18, 2023
Title; Year of publication; Lead author: Identifying and describing patients' learning experiences towards self-management of bipolar disorder: A phenomenological study; 2015; Van den Heuvel, S. C. G. H.	
Country in which the study was conducted: Other: Netherlands	
Aim of the study: To understand the experiences of self-management of bipolar disorder among the service users.	
Study design: Qualitative research	
Study methods: In-depth face-to-face interviews were conducted with the study participants. Interviews were recorded and transcribed. Interview data were analysed using phenomenological content analysis. Categories to the service users regarding their bipolar disorder self-management were identified.	
Study participants' description: Gender: (Male, n = 8; Female, n = 8) Bipolar type: (I, n = 9; II, n = 7) Age range: 23-66 Education level: a) Vocational level: 6 b) Bachelor level: 7 c) Master level: 3 Marital status: a) Single: 5 b) Married: 9 c) Divorced: 2	
Total number of participants: 16	
Socio-environmental contexts used to understand self-regulation:	

Individual	(SELF-REFLECTION) - "...I am reading the piles of notes I made

	during that period of time...to realise that I was just ill." - "At a given moment, you start to reflect on things…" (SELF-CARE) - "...I gradually started going to the gym, and I eventually felt better..." (SELF-INITIATION) - "...it is important to do things to prevent a further downfall..." (SELF-MONITORING AND ACTION) - "I have a life chart...For me it has more value if I feel it is getting worse..." (SELF-AWARENESS/EVALUATION) - "…You start to think about what is not suitable for me right now, what does and does not help me at this moment." (SELF-LEARNING) - "You have to learn to recognise your signs..." - "...You have to experience it for yourself, just to know what your boundaries are..." (SELF-CONTROL) - "I now feel like a mother and a child united in one person. I refer to myself as a mother to her child. The child wants to take another ride in the carousel, but the mother says it has been enough for today..."
Microsystem	(HEALTHCARE PROVIDERS' SUPPORT) - "...So, [name of the nurse] said that it was probably the trigger of my manic episode...I believe him. I think that it is correct what [the nurse] said..." - "I did not practice sports anymore, but my appointed nurse advised me to do so to get me moving again...She [the nurse] made our mutual agreements very concrete and verified afterwards." (SOCIAL (FAMILY/FRIENDS) SUPPORT) - Well if my sister says it is better not to go to a party when I tend to be in a hypo-manic episode, she cannot say that to me straightforwardly because then I start getting angry...However, if she disguises the message, using our code phrase 'a little bit jumpy', I very well know that it is better to pick up this sign

	and listen carefully to her advice if I want to prevent a recurrence."
Mesosystem	(INVOLVEMENT FROM FAMILY AND HEALTHCARE PROVIDERS) - "...my psychiatrist and partner supported me by putting faith in me. Because of this confidence I was given, I was careful not to break our mutual trust."
Exosystem	(INVOLVEMENT AND ENGAGEMENT WITH WORK OR ORGANISATIONAL COMMUNITY) - "I was a volunteer at the Red Cross for about a week..."
Macrosystem	None

Other related terms indicating self-regulation:

Self-management, Autonomy, Self-determination

Other results (if relevant):

Interview data analysed revealed five categories of self-management in bipolar disorder:
a) Acknowledgement of having BD
b) Processing the information load
c) Illness management
d) Reflecting on living with BD
e) Self-management of BD

Challenges related to self-regulation (if any):

Individual	(SELF-DENIAL/IGNORANCE) - "I was opposing the diagnosis...I did not realise or acknowledged being ill...for the whole two years..." - "...It was simply something I could not accept for a long time..." (FUNCTIONAL/WORK IMPAIRMENT) - "...I used to read a lot and memorised...but now I am only able...to grasp small pieces of information. It takes me a considerable amount of time to read things and 'stick it' to my mind." - "...I used to do several things at the same time...But nowadays I cannot do that anymore, just one thing at a time." (LOSS OF ILLNESS-/SELF-CONTROL) - "So the way I see it, it's [the illness]

	hopefully something that belongs to the past...and never will come back...But despite all efforts...some kind of unpredictable wild animal, a predator, that is watching me closely waiting to strike me at any given time. It feels like it isn't something you can control."
Microsystem	(OVERLY INVOLVED/CONCERNED CARERS) - "...service users mentioned that good intentions of caregivers sometimes felt as overprotection and restricted them in their learning process towards self-management of BD."
Mesosystem	None
Exosystem	None
Macrosystem	(NEGATIVE CULTURAL/SOCIETAL PERCEPTION OF MENTAL ILLNESS) - "...This label of being mad - it seemed it came out of nowhere."

Author's conclusion:

Bipolar disorder self-management is a learning process in which individuals with BD learn to recognise and react to the outcomes of their actions after reflecting them. A supportive social network that allows individuals with BD to fall back on is helpful to help them learn about overcoming the fear of illness relapse, to explore personal boundaries, and to integrate BD into their lives.

Reviewer's comments (if any):

-

Study ID:	Date of data extraction:
21	January 14, 2024

Title; Year of publication; Lead author:

A shared lived experience of a psychologist battling a mental health crisis; 2022; Vierthaler, J. M.

Country in which the study was conducted:

United States

Aim of the study:

To provide an understanding of the lived experience of a psychologist with a mental health issue.

Study design:

Case report

Study methods:

The prosumer's and her friend's (a psychologist) experiences with bipolar disorder were descriptively written.

Study participants' description:

Gender: Both females
Age: Unknown
Job: Psychologist (n = 2)
Diagnosis: Bipolar affective disorder (n = 1)

Total number of participants:

2

Socio-environmental contexts used to understand self-regulation:

Individual	(SELF-ACCEPTANCE) - "Finding my voice within my illness helped to decrease my depression, anxiety, and other symptoms. It has been one of the most freeing parts of my recovery." (SELF-DISCLOSURE) - "Disclosure has not stopped me from working...choosing to disclose was, and continues to be, the most courageous and powerful thing I have done in the field." (SELF-LEARNING) - "...I have learned who to reach out to early on when experiencing symptoms…" (SELF-PLANNING) - "I can list...the number of people I can contact if I am experiencing suicidal thoughts, worrying I might be experiencing manic symptoms, or feeling as if something is just "off"."
Microsystem	(SOCIAL (FAMILY/FRIENDS) SUPPORT) - "The U.S. Army encourages having "battle buddies" who partner together both in and out of combat, attend to each other's well-being, and intervene when indicated. Erin played the role of a battle buddy for me..."
Mesosystem	None
Exosystem	None

Macrosystem	None

Other related terms indicating self-regulation:

Help-seeking

Other results (if relevant):

-

Challenges related to self-regulation (if any):

Individual	(FUNCTIONAL/WORK IMPAIRMENT) - "My first manic episode caused me to lose friends, hurt family members, and go under financially. I was left fighting to continue to practice even after my symptoms were stabilized..."
Microsystem	(SOCIAL STIGMA/DISCRIMINATION/EXCLUSION/ISOLATION) - "..."Juli, you are dangerous even if the doctors say you are stable; you should not be practicing.""
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

Support from society, including the workplace, is necessary to promote and reinforce prosumers' contributions as potential leaders in their fields.

Reviewer's comments (if any):

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Study ID: 22	Date of data extraction: December 21, 2023

Title; Year of publication; Lead author:

Self-management techniques for bipolar disorder in a sample of New Zealand Chinese; 2009; Wang, G.

Country in which the study was conducted:

Other: New Zealand

Aim of the study:

To understand self-management by New Zealand Chinese individuals with bipolar disorder in their condition to regain and maintain wellness.

Study design:

Qualitative research

Study methods:

Participants were interviewed. The interviews were transcribed and analysed using the inductive approach (i.e., reading, coding, displaying, reducing) to identify relevant themes.

Study participants' description:

Gender: (Female, n = 5; Male, n = 4)
Mean age (s.d.): 41 (+/- 12) (range: 20-56)
Employment status:
a) Student: 2
b) Housewife: 1
b) Employed (part-time/full-time): 4
c) Unemployed 2
Mean age of first diagnosis (s.d.): 30 (+/- 9) (range: 14-41)
Mean years with illness (s.d.): 10 (+/- 6) (range: 4-22)
Number of hospitalisations:
a) Five and below: 8
b) Above 6: 1

Total number of participants:

9

Socio-environmental contexts used to understand self-regulation:

Individual	(POSITIVE SELF/MINDSET CULTIVATION) - "I tell myself...be tough...I believe time will solve problems, I would not be like this forever, I will be fine." - "...I started to put myself in others' shoes and look at things from other peoples' perspectives. I also became more understanding of others and stopped forcing others to listen to me." - "I tried to avoid conflict with my mother-in-law. She is old fashioned and always has different perspectives. But I know she had good intentions." (SELF-CONTROL) - "...Here I could go by myself, I have a lot of control." (SELF-RESPONSIBILITY/ACCOUNTABILITY)

	- "You have to rely on yourself for most things..." - "...During those years, I had to rely on myself to find a way to deal with my illness." (SELF-ASPIRATIONS) - "…think belief and children are very important to keep my hope." (RELIGIOUS BELIEFS/PRACTICES) - "...more positive after believing in God..." (SELF-DISCLOSURE) - "...if others ask me, I will tell them." - "...Only here (in New Zealand) after this episode, I am willing to say it aloud. I don't feel shame any more..."
Microsystem	(SOCIAL (FAMILY/FRIENDS) SUPPORT) - "When I am in a difficult situation and want to give up, my family would encourage me by saying, 'You can do it'. Their support makes me keep going." (HEALTHCARE PROVIDERS' SUPPORT) - "...Medication definitely has side effects but the doctor will gradually reduce the amount you take." - "I could not do anything when I took one medication. Then I told my doctor and he changed it to another one for me. Now I don't feel any strong side effects and it works."
Mesosystem	None
Exosystem	(INFLUENCE FROM INTERNET/CYBERSPACE/SOCIAL MEDIA) - "...Especially here in New Zealand, there are lots of information and tools to help people with mental illness to speak up..."
Macrosystem	(RELIGIOUS IDEOLOGY) - "Religious belief was also cited by participants as their source of hope..."

Other related terms indicating self-regulation:

Self-management, Independence, Autonomy

Other results (if relevant):

From the analysed interview data, four themes were identified:
a) Viewing the current condition through a more positive framework
b) Understanding the importance of taking medications
c) Maintaining harmony
d) Being vigilant and cautious when disclosing the illness to others

Challenges related to self-regulation (if any):

Individual	(RESTRICTIONS IMPOSED) - ...When I went to see a doctor in China, I must take my family with me, which made me feel worthless..." (NEGATIVE PERCEPTION OF TREATMENT/TREATMENT SIDE EFFECTS) - "...The doctor only asks you to take pills, which makes you feel dizzy and gives you headache." (SELF-STIGMA/FEAR/ILLNESS CONCEALMENT) - "Because of taking medication every day, I could not find a boyfriend. Which man would like to see you take pills every day?" - "It is difficult to have a girlfriend. I can't talk about my illness to others..." - "That's funny, because the only person who stigmatizes me is myself. Most of my friends, even those that learned I have this problem- it does not bother them. I am the only one who stigmatizes myself."
Microsystem	(LACK/INEFFECTIVE HEALTHCARE PROVIDERS' SUPPORT) - "...He asked whether I become physically violent when I am sick. His words made me very disappointed. He was a doctor, but made such a comment." (SOCIAL STIGMA/DISCRIMINATION/EXCLUSION/ISOLATION) - "Some of my old friends stayed away from me after knowing about my illness, although we used to be very close. They thought I was worthless." - "...If I tell them, they may be afraid of me and think I become violent when I am sick."
Mesosystem	None
Exosystem	None
Macrosystem	(NEGATIVE CULTURAL/SOCIETAL PERCEPTION OF MENTAL ILLNESS) - "...not to tell Chinese people as they can't accept it." - "Don't disclose the illness to Chinese people as they really discriminate against people with mental illness." - "Chinese people find it hard to accept this illness."

Author's conclusion:

New Zealand Chinese responses to their bipolar disorder are complex due to their being exposed to Western and Eastern influences. Understanding their self-management techniques from their cultural perspective is important. Therefore, cross-cultural training in the healthcare profession is needed to improve the quality of health services provided.
Reviewer's comments (if any): -

Study ID: 23	Date of data extraction: February 18, 2024
Title; Year of publication; Lead author: Beyond the Clinical Model of Recovery: Recovery of a Chinese Immigrant Woman with Bipolar Disorder; 2014; Kwok, C. F. Y.	
Country in which the study was conducted: Other: Canada	
Aim of the study: To show that a holistic approach is needed for bipolar disorder recovery	
Study design: Case report	
Study methods: Narrative writing	
Study participants' description: Gender: Female Age: 41	
Total number of participants: 1	
Socio-environmental contexts used to understand self-regulation:	

Individual	(SELF-DISCLOSURE) - "It also makes me advocate for provision of psychoeducation to families to promote better understanding of mental health and to de-stigmatise mental illness." (SELF-ASPIRATIONS) - "...regaining forgotten dreams, restoring

	confidence, rebuilding hope, renewed social inclusion, spiritual connections, and leading a life with meaning and purpose." (SELF-LEARNING) - "…learning self-care techniques…" - "I now take an interest in knowing about different kinds of psychoactive medications and their side effects." - "Understanding my medications and how they work has been a vital self-care technique for me." - "I attribute this to having become knowledgeable about medications and holding out for what I know I need or do not need." (SELF-AWARENESS/EVALUATION) - "I am now aware of my triggers and early warning signs..." - "Awareness of my triggers has helped me to prevent relapses." (SELF-CARE) - "I pay attention to nutrition and exercise. I have learned to eat a balanced diet with vegetables and protein (fish and lean meat). I also take omega 3 fatty acids which have been shown to help in stabilising one's mood...I go to the gym for workouts as often as I can..." (RELIGIOUS BELIEFS/PRACTICES) - "...I thank God every day for my life. I find peace and comfort through my prayers." - "...I prayed to God for comfort and strength…"
Microsystem	(SOCIAL (FAMILY/FRIENDS) SUPPORT) - "...I have now regained my dreams and rebuilt my hope due to a number of factors. Most importantly, people I respect believe in me." - "Encouraged by an elderly friend, I attended a creative writing course...and this was a major turning point. My professor...motivated and supported me..." - "I have reconnected with old friends from high school and I have made new friends..." - "My friends provide me with social support no matter where they live..." (HEALTHCARE PROVIDERS' SUPPORT) - "My current psychiatrist understands my aspirations and encourages me to achieve them."

	(SUPPORTING/HELPING OTHERS) - "Helping those who are in the same boat as I provides me with a sense of usefulness." - "The readers of my book...have taken the initiative to contact me and consult with me about their mental well-being and that of their loved ones. This response is encouraging for me...This gives me a sense of purpose and meaning..."
Mesosystem	None
Exosystem	(INFLUENCE FROM INTERNET/CYBERSPACE/SOCIAL MEDIA) - "I read about the medications and I look their side effects on the internet." - "...this is easier now by universal access to email." (INVOLVEMENT AND ENGAGEMENT WITH WORK OR ORGANISATIONAL COMMUNITY) - "...I have been working as an ESL (English as a second language)/literacy teacher for immigrant psychiatric survivors at a Toronto centre..." - "...I was asked to be a plenary speaker at the World Federation for Mental Health Congress...I have given many talks and presented several workshops...in Asia and North America..." - "Exposures to survivors and professionals of various cultures..." - "...I have been asked to speak at a Chinese church in Toronto where I will share my experience of God's blessings."
Macrosystem	None

Other related terms indicating self-regulation:

Self-management

Other results (if relevant):

-

Challenges related to self-regulation (if any):

Individual	(NEGATIVE PERCEPTION OF TREATMENT/TREATMENT SIDE EFFECTS) - "I complained about side-effects of lithium..." (SELF-DISTRUST/DEGRADATION) - "I wrote about myself: "A hopeless nut. That was me alright...Confidence lost. Self-esteem low. A living corpse with a mental handicap."" (LACK OF ILLNESS KNOWLEDGE/UNDERSTANDING) - "I realise now that my episodes were mainly caused by a lack of emotional intelligence...not understanding the role of stress in my life...not appreciating the importance of adequate sleep."
Microsystem	(LACK OF SOCIAL (FAMILY/FRIENDS) SUPPORT) - "This complete lack of familial support made me feel alienated, socially excluded, guilt-ridden, and totally demoralised." (SOCIAL STIGMA/DISCRIMINATION/EXCLUSION/ISOLATION) - "To them, mental illness is a taboo subject that must be avoided." (LIMITED/INEFFECTIVE HEALTHCARE PROVIDERS' SUPPORT) - "Mental health professionals seemed to be only interested in my illness, not in me as a person. They did not seem to notice that I came from a different culture to theirs..." "Those who did notice that I was Chinese seemed to think I should comply with the stereotypes of Chinese women...When I did not fit the stereotype, they gave me more medications." - "I had always wanted to be a writer, speaker, and lecturer. Yet, when I would mention this to health care professionals, they say it as 'grandiose thoughts". I was never encouraged. In fact, my aspirations were actively discouraged..."
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

The real meaning of recovery is not confined to the traditional recovery model but ones that follow the empowerment recovery model principles.

Reviewer's comments (if any):

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Study ID:	Date of data extraction:
24	February 18, 2024

Title; Year of publication; Lead author:

A Personal Perspective on Recovery; 2008; Miller, L.

Country in which the study was conducted:

UK

Aim of the study:

To share personal meaning of recovery.

Study design:

Case report

Study methods:

Narrative writing

Study participants' description:

A female doctor working part-time in General Practice and Occupational Health.

Total number of participants:

1

Socio-environmental contexts used to understand self-regulation:

Individual	(SELF-RESPONSIBILITY/ACCOUNTABILITY) - "...and lucky to earn enough from a few hours of work each week." -"My luck depended on being a doctor." (SELF-CARE) - "Instead I found my answer in a healthy lifestyle...fresh fruit, fresh vegetables, omega 3 fish, daily exercise and a ban on junk food and alcohol..." (POSITIVE SELF/MINDSET CULTIVATION) - "And equally important, in a reasonable and rational set of beliefs and values..." (SELF-LEARNING) - "Learning social skills, developing

	appropriate social expectations and fine-tuning social judgements..."
Microsystem	(SOCIAL (FAMILY/FRIENDS) SUPPORT) - "I was lucky with having some true friends..." - "...and best of all, a few good and honest friends." (MENTAL HEALTH PEER SUPPORT) - "Self-management groups, providing security, support, wisdom and experience of the illness, help."
Mesosystem	None
Exosystem	(INFLUENCE FROM INTERNET/CYBERSPACE/SOCIAL MEDIA) -" The Internet helps enormously...writing blogs..."
Macrosystem	None

Other related terms indicating self-regulation:

Self-management

Other results (if relevant):

-

Challenges related to self-regulation (if any):

Individual	None
Microsystem	(LIMITED/INEFFECTIVE HEALTHCARE PROVIDERS' SUPPORT) - "I also had a string of bad psychiatrists and therapists...which made me realise that psychiatry and therapy would not give me the answer."
Mesosystem	None
Exosystem	None
Macrosystem	None

Author's conclusion:

Finding supportive and honest friendships is the hardest.

Reviewer's comments (if any):

-

2) Initial Semi-Structured Interview Guide

a) Opening

"Good morning/Good afternoon. I am Dr Leong, a researcher for this study. Thank you for your willingness to participate in this study. Before we go further, let me go through with you some important information about the study (use the Participant Information Sheet to explain). Please do not hesitate to stop me if you have any questions along the way. Shall we begin?"

"Are you clear with the explanation?" "Do you have any/further questions?"

"May I get your consent to join this study by having your name and signature with today's date on this form, please?"

b) Assessment of perception of experiences with bipolar disorder

(i) "How long have you been experiencing emotional disturbances?"

(ii) "When did you first receive psychiatric treatment?"

(iii) "Are you aware of your current diagnosis and are you comfortable with the diagnosis given?"

c) Key questions (Questions asked are dependent on the participants' responses)

(i) "What are your life experiences with bipolar disorder?"

(ii) "How did you cope back then?" "What had been your coping strategies?" "What did you find helpful in helping you to manage your illness?" "What are the ways you used to improve your life?" "How did you manage difficulties associated with bipolar disorder?"

(iii) What do you think are the factors that help in your management of bipolar disorder? What are the challenging factors that impact your management of the bipolar disorder?

Socio-ecological components	**Questions**
a) Personal (Refers to personal attributes or characteristics that affect one's life) - Age - Health condition - Personality	i) Looking back, would you think age has influenced your self-management then and now? How so? ii) Do you have other medical comorbidities besides bipolar disorder? What do you think about the impact of bipolar disorder and/or the medical illness on your ability to self-manage your well-being in general? iii) How would you describe your personality? How does your personality influence your overall

	well-being in general? How would you usually deal with stress or similar life-distressing events? iv) What do you usually do to stay well?
b) Microsystem (Refers to a person's immediate environment as an influencing system for him/her) - Family/relatives - Neighbours/neighbourhood - Friends/peers - Colleagues/workplace - Healthcare facilities/healthcare professionals and providers - Academic institutions (e.g., school, college, university, etc.) - Religious institutions (e.g., church, temple, mosque, etc.) - Recreation-related facilities (e.g., parks, gyms, indoor/outdoor sports stadium) - Different types of shops that 'support' the general well-being of the person (e.g., sundry, laundry, barber/hairdresser shops, etc.)	i) Who are you currently living with? How is your home environment affecting your well-being and your activities of daily living? How is your relationship with your family? ii) What are there in your neighbourhood that positively and/or negatively affect your living experience? iii) Do your close friends know about your having bipolar disorder? What role do they play in your illness experience, including its management? iv) Are you currently working? Is your employer aware of your mental health needs? How is your interaction with your colleagues? What is your work support like? What are your concerns regarding your illness at your workplace? "Do you usually bring your work back to your home?" "How does your work affect your home life?" v) How often do you go for follow-up treatment for your bipolar disorder? Do you experience any difficulty going to the treatment centre/facility? What is your experience receiving treatment at the hospital/clinic? What are your opinions regarding you're the support you received from the healthcare providers? Do the supports you received influence your illness management? vi) Is your school/college/university supporting your mental health needs? How do you manage your academic activities besides your general living activities? vii) Do you attend church (or other religious activities)? Can you tell me about your experience in well-being in relation to your religion? How does that help in your general life management? viii) How do you spend your free time? Are you involved in any outdoor

	or indoor activities that you find helpful? How do you find access to the recreational places nearest to you? ix) How easy for you to get access to places that have your regular needs fulfilled, for example, the sundry, laundry, and barber/hairdresser shops? What amenities do you find difficult to access in your living area?
c) Mesosystem (Refers to two or more of the microsystems that interact with each other that affect the person's management of well-being)	i) What do you think are the most significant things involved that others did that helped you manage yourself? Similarly, what are the things you think you did that helped you in managing yourself? ii) (Other relevant questions aim to find the interactions between two or more microsystems that directly involve the person- the question development will be guided by the discussion for the questions set above.)
d) Exosystem (Refers to two or more of the microsystems as above, but one of them cannot contain the person in that system) Additional: - Public transportation system - Mass media - Work policy	i) What do you think about the transportation services in your area? Have you ever used its service to get you around? ii) How often do you use the Internet? What do you usually use it for? Besides the Internet, do you access the TV, radio, and newspapers? How do you think the mass media influences your illness and general well-being? iii) Are you currently content and happy in your workplace? Are you aware of the work policy in your workplace? What do you think about the work policy at your current workplace? Is the policy affecting you in any way? iv) (Other relevant questions aim to find the interactions between two or more microsystems in which at least one of them does not directly involve the person- the question development will be guided by the discussion for the questions set above.)
e) Macrosystem (Refers to the person's culture and society function that affect the person's well-being)	i) What do you think about the mental health services operated here in your area specifically and the country generally? What do

- Mental health policy - Welfare policy - Cultural perspectives on mental health/illness - National economy - Religious beliefs	you think are the limitations, and what further improvements can be made? ii) Have you ever received welfare assistance for your bipolar disorder from the government? What do you make of the current assistance? iii) What is your opinion about our culture's acceptance of mental health and illness? What is your illness experience in relation to our cultural acceptance in this area? Are your illness and well-being management being affected by our cultural perspective on mental health/illness? If so, how? iv) What do you think about our current national economic state and its impact on our mental health system? What about its impact on yourself? v) What is your faith?" "How does your faith affect your overall self-management? Do other faiths in our culture affect you in any way?

d) Ending

(iv) Is there anything that you would like to add regarding the factors that assist or limit your living experiences with bipolar disorder?
(v) What do you think about the interview today? How are you feeling now?
(vi) Thank you very much again for participating in this study. Your participation is very much appreciated. Is there anything else you want to say before we end the interview?

e) Use of prompts or probing questions

(ix) Could you elaborate more on the issue of…?
(x) Could you give some examples regarding this?
(xi) Besides this, what about…?
(xii) Does anything else come to mind?
(xiii) What about the relationship between…and...?
(xiv) Is there anything else you would like to add?

3) Interview Transcripts with Coding

Interview transcript 1	Initial codes
Interviewer (I): Can you share your living experience after bipolar disorder?	
Participant (P): During the illness relapse, I was not aware of my actions. Usually, my husband would comfort me, but sometimes I would not listen to him. The only way for me is to take medication to feel better. At the beginning of the illness, I would refuse the medication. Just like my sister, who refused medication and her illness worsened.	CL1: Limited awareness of own actions during an illness relapse (O2). CL2: Husband's comfort during illness (O2). CL3: Taking medication is an important way to feel better (O1). CL46: Refusing medication when ill in the beginning of illness (O2).
I: I see that your mood is stable with treatment, and you are able to work, but what are the ways you use to help manage your life? P: I don't know what to say. I: I meant, what are the ways that you use to help improve your life, for example, by having regular sleep time or regular medication intake? What are your ways?	
P: Only take medication. The doctor who changed my medication said it can cause drowsiness and advised me to take it around 4-5 pm. He said olanzapine helps with sleep.	CL4: Using medication to improve life (O1). CL47: Receiving treatment and support from mental health professional (O2).
I: How is your sleep now? How do you regulate your sleep, or do you depend on medication to help you sleep? Do you have a particular time to sleep?	
P: I usually go to bed around 10-11 pm and wake at 8 am. I do not wake in between except to go to the toilet. I: So you don't have any sleep problems. P: Yes. No sleep problem. I: So, do you practice regular sleep patterns and medication intake? P: Yes. I: Would you say these are the ways you manage your life? P: Yes. I: Besides these, what other ways do you use to improve your life?	CL5: Practice regular sleep pattern (O1).
P: I do exercise, like playing badminton and swimming. I: How frequently do you do them?	CL6: Doing physical exercises (O1).
P: Once weekly, about an hour. Depending on the availability of the badminton court. I would follow him (the husband) and his	CL7: Regular physical exercises (O1). CL8: Using the badminton court to play badminton (O2).

friends to play there. For swimming, about once a week. I: Any other ways? P: No. I: So, what do you do to prevent life difficulties associated with bipolar disorder? P: No. When I first had it (bipolar disorder), I was very afraid of not being able to sleep. I was not sure why I couldn't sleep then. Then my weight got lighter. My husband encouraged me to exercise and not to take sleeping pills. Taking sleeping pills would not help sleep for long. I: So you don't take any sleeping pills now? P: Not since the medication change. Previously, I took Epilim. There's another yellow medication. I don't know its name. I only took one tablet. The hospital changed it. I: What do you think has helped in your life? P: What do you mean? I: What are the things in your surroundings that have helped you deal with life issues? P: Only medication. I don't know how to answer you. I: No worries. P: But now I have two children who live with my mother-in-law. They only return to Alor Star on weekends. When they are around, I focus on them. When I'm at work, I focus on work. I: You stay with your husband in Penang? P: Yes. I: How old are your children? P: One is ten years old, and another is four years old. I: Who in your life has helped you? P: My husband. He often encourages me. He said there was nothing much I could do but take medication. I: What other things did he do to encourage you? P: Nothing much. When I was unhappy at times, he would advise me. Another person is my mother, but I no longer stay with her. My husband encourages me more. My mother often advises me to take medication. Otherwise, the illness will relapse, just like what happened to my sister.	CL9: Joining husband and his friends to play badminton (O1/O2). CL10: Husband's encouragement in exercising and not taking sleeping pills (O2). CL11: Medication perceived as the only thing that helps (O1/O2). CL12: Mother-in-law helps look after the children (O2). CL48: Focussing on children when they are around, and focussing on work when at work (O1). CL13: Husband's frequent encouragement and his belief that only medication can help her (O2). CL14: Husband's advice when she's unhappy (O2). CL49: Mother's advice when she's unhappy (O2). CL15: Husband's encouragement (O2). CL16: Mother's frequent advice to take medication (O2).

I: Your mother-in-law also looks after your children. P: My mother-in-law does not advise me; only my mother does. But she (mother-in-law) helps me look after my children, so she reduces my stress. I initially looked after my children after my second childbirth. I felt bored at home, so I went out to work two years later. I asked my mother-in-law if she could help look after my children, and she agreed. So, I went out to work. Work can help reduce stress, although there is work-related stress. At least I won't think negative things that much. Better than at home. I: Could you elaborate on how work helps reduce stress? P: I tend to think negatively at home. When I was at home, I only looked after the children. I needed to cook for them. When the baby threw a tantrum, I could not do anything. I: You felt that taking care of children was stressful. P: Yes. I was afraid that they might fall and injure themselves. There was once the baby fell and injured his head, which required stitches in the hospital. I feel that after taking medication, my responses have become slower. At that time, only my child and I were at home, so I had to call my husband to bring him to the hospital. I: Does your medication now affect your work, like attention and concentration? P: Yes. It makes me sleepy. I: How frequently do you need to take medication in a day? P: Only once a day, around 4-5 pm. I: This timing is set by your doctor? P: Yes. I told the doctor that I was still sleepy upon waking up. He suggested that I take the medicine earlier. Before that, I took it at 7-8 p.m. I: Are the medication side effects an issue for you? P: Yes. My employer sometimes commented on my slower responses, but I did not inform him that I was taking medication. Only my colleagues knew. I: Why not?	CL50: Awareness illness will relapse without medication (O1/O2). CL17: Mother-in-law helps look after her children and reduces her stress (O2). CL18: Going out to work due to boredom at home looking after children (O1). CL51: Requesting help from mother-in-law (O1/O2). CL19: Work reduces stress by limiting negative thoughts (O2). CL20: Tendency to think negatively at home (O2) CL21: Only looks after children at home, and when baby throws tantrum, that disrupts her other work at home (O2). CL52: Afraid that children hurt themselves when she's caring for them which is due to past experience (O1). CL22: Medications are making responses become slower (O2). CL53: Calling husband for help to bring child to hospital (O1/O2). CL23: Medications cause sleepiness (O2). CL24: Regular medication intake (O1). CL25: Discussion with the doctor about medication issue and receiving advice what to do (O1/O2). CL26: Employer's comments about slower responses due to the medication (O2). CL27: Only inform selective work colleagues about mental health condition (O1).

P: Because my employer is easily angry. I dare not tell him. He tends to scold and comment on my slower response whenever he's angry. I: You mentioned earlier that being at work is helpful because it helps to reduce negative thoughts. P: Yes. I: What has been helpful to you in terms of the work environment? P: Like I said, less negative thoughts, not unhappy or worried because work is busy. Need to do this and that, answer the phone. I: Like a form of distraction? P: Yes. What about your relationship with your colleagues? I: Ok. The place I work is just a small company. There are a few foreigners with whom I don't talk much. There is one person named Miss Lim. I often speak to her as she has worked there for a long time. P: What about factors that are not helpful? I: What do you mean? P: You mentioned earlier that your employer is easily angry. Does that affect how you manage your illness? I: I don't really bother about him because he tends to scold everyone. Just don't bother about him. P: You managed to do that? I: Yes. Sometimes, I would think for a while, why did he scold me? But then, I just let it go because that is who he is. When I first joined the company, when he scolded me, I was afraid, but now I don't really bother. There was a time after he severely scolded me and blamed me for not doing my job. But after that, my colleague, Miss Lim, found the thing he wanted in another vehicle. Then he apologised to me. At that time, I was disturbed by his scolding, but I thought it was not my fault. After he apologised, I had to comfort him and tell him it was no issue. I: So, your employer does not know you're being treated for bipolar. Only your friends know. P: Yes. He didn't understand what bipolar was. I told him it's almost like depression. He wouldn't know even if I explained to	CL28: Not daring to tell employer about mental health condition due to his tendency to be easily angry (O2). CL29: Work takes the mind off from negative thinking (O2). CL30: Developing a work acquaintance (O1). CL31: Ignoring employer's negative attitudes (O1). CL32: Doing reflection after being scolded by her employer and then letting it go (O1). CL54: Being afraid when scolded initially but not being afraid now (O1/O2). CL55: Being convinced it's not her fault that led to his scolding (O1). CL33: Forgiving and comforting the employer after he apologises (O1). CL34: Employer does not understand about bipolar disorder (O2).

him. I also worried that if he knew I had bipolar, he would not hire me. I am also worried that others know that I have this illness, but they are not aware of what bipolar is. They need to go deeper to understand it. Before I got the illness, I didn't even know what bipolar was. I: Do you think that the people around you have affected you? P: I don't understand. I: For example, does the life of your husband, like his job, affect you? P: I still don't understand. I: Do the people around you and what's happening to them affect you?	CL35: Worry that if the employer knows about her illness, she would not be hired (O2) CL36: Worry that others may know about her illness but do not understand what bipolar is (O2).
P: Oh…when my husband was not happy at work, he would scold me at home when I refused to do housework as I was tired after the medication. He would say that I was lazy. At times, he would share his experiences at work with me, but not too much, as he was afraid that I would think negatively. I: So you felt that his work stress has made its way home and affected you?	CL37: When the husband is not happy at work, he scolds her at home (O2). CL38: Feeling tired after medication affects ability to do housework (O2). CL56: Husband shares work experiences with her at home (O2).
P: A little bit, but I don't bother because I know it's his work stress. I don't bother too much, or else I would think too much and become depressed. I: What about your friends?	CL39: Not bothering much about husband's scolding at home or it would make her depressed (O1).
P: I hardly go out. Only chat through WhatsApp and see Facebook. I: Do you make an effort to seek more information about bipolar disorder on the Internet?	CL40: Connecting with others through WhatsApp and Facebook (O1).
P: Not really. My husband did. When I first had bipolar, he searched for more information about bipolar disorder. I: So, now he's fully aware of what bipolar is?	CL41: Husband's initiative to understand about bipolar disorder (O2).
P: He's been with me for so long. And I don't have it before childbirth. My sister's illness was more severe. Before she got married, she was a mad person. She would constantly scold at a building. I am not like that. She didn't take medication then. My mother sent her to a private hospital for treatment, and she was hospitalised there. I: Now she's well? P: Yes.	

I: How do you help each other? P: We don't talk about it because she doesn't like it. It's likely that her illness causes her to be like this. But my mother encourages her to take medication. She's just given birth, and we are afraid that she may have another chemical imbalance. She takes medication regularly now. Now, she's seeing a doctor who discourages her from breastfeeding. I: Who else affects you? P: Do you mean colleagues, and how would they share their life problems with me? I: I meant, do you feel that their life situation has affected your life? P: Not really. I: What about the things in our society that you think have affected your management of bipolar? P: I don't understand. I: Factors like transportation and housing environments…do they affect your management of bipolar? P: The place I live has many uncles and aunties. Sometimes, they will ask if I have had my dinner and all. So, it did not have much effect on me. I: What about your treatment? Do you have difficulty going to the hospital? P: Sometimes, I need to wait quite a long time for treatment. I: What do you mean? P: I needed to wait for a long time to see a doctor and to get my medication. I would be upset, but then I thought that they must have a slower work pace, so I did not bother anymore. I: Was there a lot of people in the hospital? P: The hospital opens at 8 am; needs to wake up at 6 am. I have gotten used to it already. I: Is it cumbersome to go to the hospital from your house? P: My husband always accompanied me to the hospital. When the traffic was heavy, we would go by motorbike. I: A lot of traffic there? P: There is no parking space there. I used to see the doctor at 102 (clinic). Now, they	CL57: Needed to wait a long time for treatment (O2). CL42: Long waiting hours to see a doctor and to get medication (O2). CL43: Not bother about long waiting time for treatment anymore after rationalising about the staff slow work pace (O1). CL44: The husband's accompaniment to receive treatment at the hospital (O2).

shifted it to another place (near the prison). Easier to go there by a motorbike. I: Any other factor you can think of, like finance and faith? P: No. I: Is there anything else you would like to add or ask? P: No. But I would want to know if I can stop medication and become a normal person again. I: I think it is better that you discuss this concern with your doctor the next time you see him/her. P: Ok. I: Thanks once again for your willingness to participate in this research.	CL45: Difficulty finding parking space at the treatment centre (O2). (Total data fragments: 57)

Interview transcript 2	**Initial codes**
Interviewer (I): Can you share your experience living with bipolar disorder? Participant (P): When I was first diagnosed with bipolar disorder, I was having difficulty with the medication. I was prescribed lithium and quetiapine. I experienced side effects such as dizziness, nausea, and vomiting. I had difficulty waking up in the morning. Lithium had a metallic taste to it. I usually woke at 1-2 pm. So, I stayed with my aunt in KL for one year and was not able to work. After waking up, I cleaned the house, which I found satisfying. If I do nothing, I tend to overthink and feel depressed. I: I see you were having difficulty at the beginning of the treatment. How are you with your treatment now? P: I am getting used to quetiapine, but I am still struggling with lithium because I have thyroid issues. They monitored my thyroid function regularly. Some time ago, as I was beginning to adapt to the treatment, my father had a stroke. I blamed myself for that, and it worsened my condition. I returned home to Penang. I felt stressed when my father was in a bad mood and scolded my mother.	NA1: Experiencing side effects with medication (O2). NA44: Staying with aunt in KL while not able to work (O2). NA2: Doing something, like house cleaning, helps prevent overthinking and feeling depressed (O1). NA3: Experiencing medication issues due to thyroid problem (O2). NA45: Receiving psychiatric treatment support (O2). NA4: Her father's stroke makes her blame self and worsens her condition (O2). NA5: Feeling stressed when father scolds mother (O2).

I: I see. Can you tell me how you manage your life, or what are the ways you use to improve your life after being diagnosed with bipolar disorder?	
P: I tend to self-blame. My psychologist advised me to avoid overthinking. My psychologist taught me how to do that.	NA6: Psychologist advices and teaches how to avoid overthinking (O2).
I: So you have support from a psychologist.	
P: Yes. I need a psychologist. I meet with her every month. It would be difficult if we could not meet because I need her to help me manage my thoughts. Then I realise that I have become unstable. I am also a perfectionist. I find it hard to accept when unexpected things disrupt my plans.	NA7: Needing a psychologist and regularly meeting with her (O2/O3). NA8: Having a perfectionist trait causes difficulty accepting sudden unexpected plan changes (O2).
I: What about support from other professionals?	
P: When I was treated at HUPM, one specialist always attended to me. It is different here. I get a different psychiatrist every time. Some are good, and some are not. I once had a psychiatrist who said, "Why are you sad? Why do you need to be sad?" I thought, "Is it wrong for me to feel this way?" I do not put much hope on psychiatrists. If I do, then what they say would impact me. I meet them once a month and only discuss about the medication and their side effects. I will also arrange to see my psychologist on the same day before meeting the psychiatrist. I will discuss my condition with her, and it has helped me. When I see the psychiatrist, I will talk about my medication, but in other discussions, I do it with the psychologist. With this method, I am now stable for the past five to six months.	NA9: Being attended by different psychiatrists with different levels of perceived competency (O2). NA46: Encountering a psychiatrist who questions about her feelings (O2). NA10: Not putting much hope on psychiatrists due to the impact of what they said on her (O1). NA47: Regular meeting with psychiatrist and psychologist (O1/O2). NA11: Seeing psychiatrist only to talk about medication but discussing other issues with psychologist (O1).
I: Besides the professional help, who are the people around whom you find helpful?	
P: My friends, who are medical students, know about mental illness, but I am not open to all of them. Of all my relatives, my aunt, a medical staff member, is the most knowledgeable about mental health. My family believes that those with mental illness are crazy.	NA12: Friends and aunt with knowledge about mental illness found to be helpful (O2) (see NA15 below). NA13: Mental illness stigma from family (O2).
I: Do you experience any form of stigma from your family?	
P: No. I do not open up about my mental health condition to them.* They believe that	*Not coded as the section contradicted with her explanation below.

mental illness can just be treated with medication. My aunt and some friends explained it to them. I have also asked my doctor to explain to them. But I don't know if they truly understand. I opened up to my sister and mother when I returned to Penang. They asked me to continue my medical studies, but I told them I was not ready. If the main issue is not settled, it will be difficult for me to do these things. I: What is the main issue? P: To care for my sick father. I: But how accepting are your family with your mental illness? P: My mother and sister are aware that I am being treated, and when I take my medication, things are alright. But my father is egoistic. He wants everyone to care for him but does not look after his health. If he feels better, he will not monitor his diet. He also tends to scold my mother and make her work like a maid. I: How does his behaviour affect you? P: His behaviour would trigger me. That day, I was in my room upstairs, and suddenly, I heard my father scold my mother. It was not a big issue, but when I heard his voice, I was anxious and scratched myself. I called my sister to return home because I could not stand it. She rushed back and comforted me. There was a similar incident a few years ago when I had anxiety and difficulty breathing. I was brought to the emergency department. I had a bad experience there. The staff who attended to me said that I was not close to God. He pinched and scolded me and asked me to breathe properly. I said I had tried. I: What did he mean by you not being close to God? P: They said I was not able to control myself. After I was given an oxygen supply, a doctor attended me. He diagnosed me with stress and said I pretended. He then counselled me that when our parents argued, let them settle themselves, and we should not bother. I already told him that I have bipolar, and I was struggling with that. I was discharged subsequently. I also shared this	NA14: Family believes mental illness treatment is only medication (O2). NA15: Her aunt, some friends, and her doctor help explain her mental health issues to her family (O2). NA48: Asking her doctor to explain her mental health condition to her family (O2). NA16: Disclosing her mental illness to her mother and sister (O1). NA49: Telling family not ready for studies (O1). NA17: Caring for sick father prevents her from continuing her medical studies (O2). NA18: Taking medication make things alright (O1). NA19: Father's behaviour triggered her and made her anxious (O2). NA20: Calling sister to come home for comfort due to her father's behaviour (O1/O2). NA21: ED staff claims she is not close to God when she has an anxiety attack (O2). NA50: Not able to self-control is perceived by ED staff as not being close to God (O2). NA22: Doctor in ED claims she pretends and diagnose her with stress (O2). NA51: Sharing life experiences with psychologist and OT (O1/O2).

experience with my psychologist and the occupational therapist. I: You mentioned earlier that your sister comforted you. Can you share a bit about your relationship with her? P: We are good. Since my illness, she has tried her best to support me. We are all stressed with our father. The difference is that they can manage the stress, but I cannot. I: You also mentioned that you are seeing the occupational therapist… P: Yes. I am being taught some relaxation techniques. Every time we meet, it is like a sharing session. He's like my second psychologist. I: Does it help? P: Yes. I have someone to talk to. I was advised to speak to more people. However, I did not even inform my friends when I returned to Malaysia. I did not update my social media accounts. I only shared about my mental health condition with one of my three best friends. The other two are married, and I do not want to disturb them. I feel better once I meet them, even if they do not know my situation. I: So, going out for social activities is also one way you use to help yourself. P: Yes. I: What other ways do you use to manage life difficulties? P: I would keep myself busy. After being diagnosed with bipolar disorder, I am not the same. I was active with several organisations in the past. Last year, I started volunteering at a book festival. I was initially scared, but I wanted to regain my previous self. It was hard, but I tried. I woke up every morning and took public transport there. I enjoyed the process. I felt proud because I could do it. I also tried finding part-time jobs. I now teach at a religious school three times a week from 3-6 pm. This suits me because my daily routine starts after 12 pm. I am proud of myself. I: How is your work environment and your relationship with your colleagues? P: They do not know my mental health issues. I found it hard to handle the children	NA23: The sister trying her best to support her (O2). NA22: Being taught relaxation techniques by the occupational therapist and having someone to talk to (O2). NA23: Selective sharing with one of her best friends as not to disturb the others (O1). NA24: Feeling better after meeting with her best friends even though they are not aware of her mental health issues (O2). NA25: Keeping herself busy by being active in organisations, e.g., doing volunteering work (O1). NA26: Trying hard to regain previous self and enjoying the process (O1). NA27: Having a suited regular teaching job helps her feel a sense of achievement (O2). NA28: Not disclosing mental health condition with colleagues (O1).

initially. I would ask for their experiences in handling the children. It took me three months to learn. The work makes me busy, and after work, I go home, have dinner, and rest. This busyness prevents me from overthinking. I: Who else do you think contributes to your wellness? P: My siblings. I: Yes. You have mentioned them earlier. What about those who live near you? P: I am not that close to my neighbours. I: Who else do you think has negatively impacted your well-being besides the one you mentioned earlier?	NA29: Asking colleagues for their work advice/opinions (O1/O2). NA30: Busy work prevents overthinking (O2).
P: Only my father. I: What are the other factors that affected your well-being?	NA31: Her father is perceived to have negatively affected her (O2).
P: I jog in my neighbourhood. I like listening to songs and trekking. I also like to go to the library because I like to read books. The library is air-conditioned. I also like travelling and food hunting. I: What are the relationships between the factors you mentioned earlier that could impact your life management?	NA32: Likes jogging, listening to music, and trekking (O1/O2). NA33: Likes going to the public library to read (O1/O2) NA34: Likes travelling and food hunting (O1).
P: Everything that is related to my father. I can't think of the positive things. I also tend to blame myself for not being able to complete my studies. I want to continue my studies, but I am afraid I cannot do it. I: What about the societal factors like housing and transportation that have affected you?	NA52: Blaming self for not being able to complete her studies (O1). NA53: Wanting to continue studies (O3). NA35: Having self-doubt regarding continuing studies (O2).
P: I like to meet with people in my surroundings. I avoid engaging with people who knew me before, like my teachers and old friends, because I feel insecure. I like public transportation because it is convenient for me. I know what time the bus arrives and leaves. I: There is public transportation in your area? P: Yes. I can take a bus and travel around Penang like a tourist.	NA36: Likes meeting people around her (O1). NA37: Avoiding people who knew her due to being insecure (O1). NA38: Likes public transportation due to its convenience (O2)
I: How is the housing environment? P: I avoid my neighbours who like to ask personal questions. I: What about other factors like religion and economy that affect your living?	NA39: Avoiding neighbours who ask personal questions (O1).

P: Both of my parents are pensioners. Money is the cause of arguments in the family, especially my father. I am very careful with how I spend my money. I get stressed if I overspend. In religion, I don't agree with those who are narrow-minded and say those with mental illness are lacking faith in God. Therefore, I like to mingle with those who have the same struggles with mental health issues. I: Anything else you would like to add? P: I plan to continue my studies in occupational therapy, but I am afraid that I will not be able to cope. Some have asked me to take up a teaching course, but teaching is my hobby, not my ambition. My other concern is that, do I need to tell the in-charge of my mental health issues prior to learning or working? I: Any other issue you want to raise? P: No. I: Thank you for your participation in this study.	NA40: Money is a cause of arguments in the family (O2). NA41: Being careful about spending money to avoid stress (O1). NA42: Likes interacting with people with similar mental health issues (O1/O2). NA 43: Afraid of being unable to cope despite intending to further studies (O2/O3). (Total data fragments: 53)

Interview transcript 3	**Initial codes**
Interviewer (I): Can you share about your living experience with bipolar disorder? Participant (P): Whenever I am manic, I find it difficult to control myself. I keep having the urge to meet people… I: Let's talk about the ways you used to manage your life after bipolar disorder. P: I like to go sightseeing. I also go for exercise near where I live about twice a week. I: How do they help? P: They help me relax and stabilise my mood. I: I see. Who do you live with? P: I live with two friends. I: So, how is your living environment? P: It is just an apartment with basic amenities. No gym or swimming pool. I: How is your relationship with your friends? P: I'm fine with the friends I'm currently living with, but I have not contacted the friends I blocked when I was sick.	MI1: Difficulty controlling self when in mania (O2). MI2: Go sightseeing (O1). MI24: Regularly going for exercises near place of living (O1). MI3: Sightseeing and regular exercises help relax and stabilise mood (O2).

I: I see. Can you explain how your friends, whom you are living with, have contributed to your well-being? P: I do not tell them I have bipolar disorder. We do not see each other frequently as we work different shifts.	MI4: Not telling housemates about his mental health condition (O1).
I: Who else is close to you? P: My partner. He also lives in Penang. We frequently meet about two to three times a week. He has helped me a lot.	MI5: Being close to his partner with regular contact (O1/O2).
I: How does he help? P: He would accompany me whenever I came for a clinic follow-up. When I was sick, he was always there. He called me every day to ask about how I felt and my medication.	MI6: Partner's accompaniment to treatment and constant care and concern (O2).
I: Who else do you feel has helped you? P: I just recently informed my family about my mental health treatment. I did not inform them at first, but my mother saw my medication and she asked. My sister then searched online about the medication. My parents were 'ok' with the news.	MI7: Disclosing mental health condition to family (O1). MI25: Mother asks after seeing medication and sister checks them out (O2).
I: Is there a reason you did not disclose it to your family? P: I did not want my parents to worry. They are old now. My father is also concerned about my sister's cancer and my brother's debt. I did not want to burden them with the news further.	MI8: Not disclosing mental health issues to family initially because not wanting to burden them and make them worry (O1).
I: How is your relationship with your family? P: I am not too close with my siblings except my elder sister.	
I: Could you please elaborate? P: My parents were very strict when I was young. I did not tell them even when I was sick, as I did not want them to ask me much. When I was 10, I stopped talking to them until I was 17, and I stopped schooling at the same time. But when I was 18 years old, I went to a private school and subsequently took the SPM exam and continued my diploma. My diploma results were okay, and then I continued on to my degree.	MI26: Not telling parents when sick to avoid them from asking too much (O1).
I: So you stopped talking to your family and schooling from the age of 10 until you were 17? P: I still communicated but did not talk much with them.	MI27: Not much talking with parents (O1).

I: Can you further elaborate? P: My parents wanted me to study in a religious school. They insisted, but I rejected them, so they treated me differently than my siblings. They bought toys for my siblings, who attended a religious school, but I did not get them.	MI9: Differential treatment received compared to other siblings (O2).
I: How is your relationship with your parents currently? P: As I grow older, I notice that they have changed. My relationship with them is better now.	MI10: Better relationship with parents now due to changed perception over the years (O2).
I: Who else around you has impacted your life now, such as your neighbours and so on? P: I am not close to my neighbours. They once scolded me for feeding a stray cat.	MI28: Not being close to neighbours- history of unpleasant encounter with them (O2).
I: You mentioned earlier that you like sightseeing and exercising. What other ways have you used to help yourself or manage your life? P: I tend to meet up with strangers. I know them through mobile apps. I feel strangers are more friendly. That helps a lot.	MI11: Meeting up with strangers as they are friendlier (O1).
I: How does that help? P: I can spend time with them, like watching movies.	MI12: Spending time with new friends doing activities like watching movies (O2).
I: How is your work environment? P: It is better now that I have started my medication. Before that, I had anxiety besides bipolar disorder. When there were many people in the workplace, I could not perform. It has improved after the treatment.	MI13: Medication improves anxiety at workplace and helps work performance (O2).
I: How is your workplace support? P: It is ok. The supervisor understands my anxiety and often gives me night shifts because there are fewer people compared to day shifts.	MI14: Work supervisor understands his anxiety and arranges night shifts for him (O2).
I: So they are aware of your bipolar disorder? P: No. I did not tell them.	MI15: Not disclosing about bipolar disorder in workplace (O1).
I: Is there a reason why you do not disclose your mental health condition at your workplace? P: No specific reason, but I read on social media that you do not disclose sensitive information to your colleagues. I worry they might say that I pretended to get sympathy from others and did not want to work hard. I am stressed because I don't have career	MI16: Reading on social media not to disclose sensitive personal information to colleagues (O2). MI17: Worry that if colleagues know about his illness, they may think he just pretends and refuses to work hard (O2).

goals at my current workplace. As I was dealing with anxiety then, I was still reluctant to go for an interview for another job. I: Any other factor that helps contribute to your well-being? P: I spend time with stray cats. I sometimes bring them home. I: About your treatment, how do you come to the hospital? P: Usually, my partner will come with me. I: How difficult is it for you to get here? P: I get here by riding a motorcycle. It is not difficult at all. I: Who do you think is negatively affecting your well-being at present? P: No one. I: What other surrounding factors that are affecting your life management? P: What do you mean? I: Any factors that are currently affecting your life? P: Like I said earlier, my partner has been helpful in my life. He calls me every day to make sure I am okay. I: What about the life issues of other people that have affected you? P: My brother's debts and my sister's cancer. I: What factors related to religion, economy, and so on have affected your life? P: Economy…what do you mean? I: Is there anything related to financial factors that have affected your life? P: When I was ill and didn't have enough money, my parents called and asked if I had extra money. It made me sad as I couldn't help them. The loan sharks would come at night to collect payment from my brother, and I had to go out in the middle of the night to borrow money from anyone who could help. I: Is there anything else you would like to add? P: No.	MI18: Reluctant to go for a new job interview due to previous experience of anxiety (O2). MI19: Spending time with stray cats (O1). MI20: Accompaniment of partner to the hospital (O2). MI29: No difficulty going to the hospital for treatment (O2). MI21: Partner's regular contact helps (O2). MI22: Brother's debts and sister's cancer impact his life (O2). MI23: Parents ask for money when he does not have enough, and makes him sad (O2). (Total data fragments: 29)

Interview transcript 4	**Initial codes**

Interviewer (I): Can you share three ways you would use to manage life-related stress? Participant (P): Stay calm, try to overcome, and have the courage to face the issue. I: How do you stay calm? P: I try not to think too much. I: Could you elaborate on that? P: I try to empty my mind. I: Is there a place where you would go to do that? P: I usually go to this place where you can enjoy yourself. This place allows you to sing and relax. I: Is it like a club or something like that? P: Yes. I: Who do you go with? P: With my father. I usually stay for one hour. I dance and feel happy. I: Do you make new friends there? P: No. I only have random chats with those who want to chat. The uncles and aunties there will sometimes talk with me. I: What do you usually talk about? P: Just superficial talks, like about my children. I: Do you share your life issues with them? P: No. I: Could you explain why not? P: I was foolish previously until I was admitted to the ward, and a doctor told me not to tell others about my life problems because others might laugh at me. Since then, I have not shared my problems with anyone. I: So, how do you deal with them? P: Whenever I sit on a massage chair in the club, I feel calmer, and my mind feels empty. I also talk to my eldest son. I: How old is your son, and how many children do you have? P: He is 12 years old. I have six children. I: How old is the youngest? P: Six months old. I: Who helps you look after them? P: The children will look after themselves. I: Who are you staying with? P: My husband, children, and mother. I: Does your mother help look after the children?	ML13: Staying calm (O1). ML14: Trying to overcome (O1). ML15: Having the courage to face the issue (O1). ML1: Not to thinking too much by emptying her mind (O1). ML2: Going to an enjoyable place to sing and relax (O1/O2). ML3: Dancing and feeling happy at the club (O1/O2). ML4: Not sharing personal problems with others after doctor's advice to prevent others laughing at her (O1/O2). ML5: Feeling calmer after sitting on a massage chair in the club (O2). ML6: Talking to the eldest son as a way of dealing with life problems (O1).

P: No. She has to work. So does my husband. I: Are you working as well? P: No. I'm a full-time housewife. I: I see. Can you elaborate on the second way you mentioned to manage life stress? P: Trying to overcome.* I: Right. Could you please elaborate on this? P: Just my mind thinking to overcome. They told me there's a power which I need to overcome to prevent it from worsening my illness. I: Can you explain a bit more? P: I try to find things to do or play with my children. I also play with my phone and talk with my father. I: Regarding the third way you mentioned dealing with life stress, which is facing the issue, how do you do that? P: By cultivating an expectant heart. I: Can you please describe in more detail? P: You prepare with courage for the things you will eventually face. I: Where do you draw your courage from? P: From the club. I: You mentioned that your father usually goes there with you. What happens when your father is unable to go with you? P: I will go by bus. I: How is the public transportation in your area? P: The bus frequents the area. I: Do you find it difficult to go to town? P: No. I: Is there anything else you would like to add to what you said earlier? P: No. I: Thank you for your time and your participation in this study.	*Coded above ML7: Being intentional about overcoming life stress (O1). ML8: Finding things to do (O1). ML16: Playing with children (O1/O2) ML17: Playing with her phone (O1/O2). ML18: Talking with her father (O1/O2). ML9: Being expectant with potential life stress (O1). ML10: Being prepared and having the courage for unavoidable events (O1). ML11: Drawing courage from the club (the place she likes to visit) (O2). ML12: Going to the club on a bus if her father cannot accompany her (O2). (Total data fragments: 18)

Interview transcript 5	**Initial codes**
Interviewer (I): Could you tell me three ways you usually use to manage life stress? Participant (P): Music, TV/movie…(unclear)…watch programmes or movies.	J1: Listens to music, watches TV programmes or movies (O1).

I: So, you listen to music and watch TV shows or movies on television. What's the other one? P: Third one, I will go shopping. I: Where do you spend time listening to music or watching TV? P: TV at home. I: So you do them at home. P: Yes. I: Who do you stay with? P: Aunty. I: Is anyone else staying with you besides your aunty? P: My father comes for lunch and dinner sometimes. I: Your father will… P: Come for a meal, either lunch or dinner, or both, when my mum is not around. I: Where do your parents stay? P: Nearby. I: How long have you been staying with your aunt? P: Since I was a baby. I: I see. How is your relationship with her? P: Ok. Some of my family thinks we need each other. Sometimes, we fight and argue. I: Does she play a role in your well-being?	J2: Go shopping (O1).
P: Yes. I: Can you describe more about that? P: In the beginning, when I could not accept the illness, and I was struggling to cope with it, she used to look after my medication.	J27: Difficulty coping with illness at the beginning of illness (O2). J3: Aunt used to look after her medication intake (O2).
I: So she plays an important role in ensuring your medication intake. What other roles does she play to help you get well? P: By listening to me…(she went on replying to a message in her handphone)…Ok. I: Can we continue? P: Yes.	J4: Aunt listens to her problems (O2).
I: You mention that your aunt listens to you. Do you share your problems with her? P: Yes. I: How frequently do you do that? P: Daily.	J28: Frequently sharing her problems with her aunt (O1/O2)
I: You find it helpful talking to your aunt? P: Sometimes. I: Why is that? P: Sometimes, I feel she can give me solutions.	J5: Aunt gives her solutions when talking to her about her problems (O2). J6: Being unable to make decisions (O2).

I: So you go to her to get solutions. P: I feel like I am fickle-minded and can't make decisions. I: Who else do you go to besides your aunt? P: No one else. I: What about your friends and others close to you? P: I had friends when I was working. I used to share with them, and they used to help, but I stopped working. They were all busy, and we lost contact. I: When did you stop working? P: Before Covid. I: What caused you to stop working? P: Transportation issues and health worsened…(unclear). I couldn't get along with the boss and got fired. I: Could you please elaborate on the transportation issues? P: The changes in the transportation systems, where the train, ferry, and (unclear) were segregated. Also, the ageing process caused me difficulty in travelling. I: You mentioned your friends at work helped you then. How did they help you? P: They lent me their listening ear. I: What about your other friends now? P: No. I am more in touch with my family members. I: Who are they? P: My cousins. I share my medical and other problems with my cousins. I: How do you share your problems with them? P: I phoned them. I called and talked to them, or they came for a visit. I: How often do they contact them, or do you reach out to them? P: Two or three times a week. More often these days because their mother is sick. Call to ask how their mother is doing or if they need help. (Temporary pause as she looked at a letter that the doctor gave her.) I: May we continue? P: Yes. I: You said earlier about keeping in touch with your relatives. How do you find their support? Do you find them helpful?	J7: Used to share problems with her work colleagues (O2). J8: Lost contact with friends at work after stopped working (O2). J9: Stopped working due to transportation, health, and work-related issues (O2). J10: Changes made to the location of the transportation hubs caused her not feasible to travel to her workplace (O2). J11: Difficulty travelling to work due to ageing (O2). J12: Friends at work provided a listening ear (O2). J13: Sharing life problems with cousins (O1). J14: Talk to cousins via phone calls or them coming for a visit (O2). J15: Keeping a regular contact with cousins (O1). J16: Emotional dysregulation despite at a mature age (O2).

P: Yes. I still feel that at the age of 41, I am still emotional, sensitive, easily triggered, and irritable. I: How do you cope with these emotional issues? P: I take my medication diligently. I: Is taking medicine regularly helpful? P: To a certain extent. You have to come out of it. I: How do you make sure that happens? P: Listening to music, watching movies, and talking to others. I talk to my counsellor regularly. I: What do you think about the counselling support? P: I met someone, and the counsellor advised me that the person was not right for me. The counsellor saw that the issues were going to be repeated. I didn't listen, and in the end, I had to break the relationship off. I had to block that person. I saw the pattern repeated. We couldn't get along. He was too bossy, demanding, and seeking attention. I couldn't give him the time and other things. I: How does that relate to your counselling support? P: During the counselling session, I shared about the person and that I met someone. I: Do you mean that the counsellor gave you advice? P: Yes. The counsellor advised me that that person was not the right person for me and that it was not the right time for me to be with someone. I needed to be stable emotionally and in life before being with someone. I talked about my ex's behaviour before our break-up, and the counsellor mentioned that the unpleasant past was going to repeat itself. It happened. I: Did you find the advice from the counsellor helpful? P: Yes, but I didn't listen at that time. I: Are you currently involved with anyone? P: No. I: You mentioned earlier that the other way you coped was by going shopping. Could you elaborate on that? P: I would take advantage of the situation; if I couldn't sleep at night, I would shop online. I would go to Shopee and TikTok,	J17: Diligent medication intake (O1). J18: Awareness that she needs to overcome emotional problems despite being helped by medication (O1). J18: Coping with emotional issues by listening to music, watching movies, talking to a counsellor regularly (O1). J29: Received advice from the counsellor but didn't listen to her (O1). J19: Taking advantage by doing online shopping when not able to sleep (O1). J20: Doing online shopping and buying groceries (O1/O2).

see what I needed or didn't need, and buy cheap and affordable things. Lately, I changed my shopping habits to buying groceries. I: How do you feel about online shopping? P: Sometimes I feel great when I can afford to buy, and sometimes I would be like, "The things are quite cheap; I might as well get them here."…(unclear) I: How did you access those shopping sites? P: I used my phone. I: How else do you do your shopping? P: In the daytime, I go shopping in the mall. I: How do you get there? P: There's a mall near my house. I walk there. I: It is quite convenient. Do you go alone or with other people? P: Sometimes I go with my father or aunty, and sometimes I go there alone. I: Right. Are there any other ways you can cope with life stress? P: I used to read books, but I stopped. I find reading the same books boring, and I don't want to waste money buying new ones. There is not enough space in the house to keep them, and I feel bad if I can't keep them, so I stopped buying them. I: Is reading your hobby? P: Used to be. I: What other hobbies do you have? P: Gardening. (She checked her phone again.) I: Are you still doing the gardening work? P: I maintain my plants, but I haven't planted new plants for some time. I: You have the compound at home to keep the plants. P: Yes. I: How do you find the housing environment in your area? P: It's ok. It's quite quiet and not that noisy except during festivals. I: What about safety-wise? P: It's safe. I: Do you have anything else to add? P: No. I: Thanks for your participation in this study.	J30: Using phone to access online shopping sites (O1/O2). J21: Going to the shopping mall (O1). J22: A mall within walking distance from the house (O2). J23: Used to read books (O1). J24: Stop buying books to read as no more space to keep books at home (O1/O2). J25: Doing gardening (O1). J31: Quiet housing environment (O2). J26: Safe housing environment. (Total data fragments: 31)

Interview transcript 6	Initial codes
Interviewer (I): What are the three ways you use to manage life stress?	
Participant (P): Initially, I tended to eat whenever I was stressed. Over time, I gained significant weight. I then realised that that would not solve the problem. I started to exercise to help myself. I also used leisure activities, such as playing electronic games, to help myself to relax. These are my three coping strategies.	WJ1: Eating a lot when stressed (O1). WJ2: Using exercise after realising that eating alone will not solve the problem (O1). WJ3: Playing electronic games to help relax (O1).
I: Could you explain about your eating strategy? Do you cook at home or buy from outside?	
P: Previously, I often bought my food from outside. Recently, I have been learning to cook some foods that can help me relax.	WJ4: Learning to cook foods that help him relaxed (O1).
I: What kind of food is that?	
P: Like hotpot, barbecued food, and so on. I then realised that cooking could also be a form of leisure activity. Since then, I have been cooking at home, and it's healthier. So, I have developed a good habit.	WJ25: Developing a cooking habit at home (O1).
I: You find cooking relaxing.	
P: Yes. It's like food therapy for me.	
I: How often do you cook in a week?	
P: I won't cook in the daytime because I am working, but I cook in the evening. About three to four times a week. At other times, I will eat out.	WJ5: Regular cooking at home (O1).
I: Where do you usually buy your food?	
P: At nearby food stalls or Aeon Mall. I would usually go to Aeon Mall to buy as there are more varieties.	
I: So they are located close to your house?	
P: Yes. I sometimes buy from the night market there.	
I: Do you find it difficult to find food there?	
P: Do you mean finding food or their ingredients?	
I: Both.	
P: Finding food is not difficult, but to get the cooking ingredients, you need to travel further—like 20-30 minutes. It's not too hard to get there. Another coping strategy I use is to listen to podcasts when I drive. It's relaxing for me, so I don't find it difficult. I also find buying the ingredients relaxing. As	WJ26: Not difficult to buy food and cooking ingredients (O2). WJ6: Using the driving time to listen to podcasts (O1).

my work is stressful, doing these things is relaxing for me. I: Who do you stay with? P: I am currently staying with a colleague. We are ok. We do exercise and go swimming together. When he is busy, I will go there myself. I: Besides exercise, what other activities do both of you participate in? P: He is a Malay. So, in terms of food, we don't cook together. Sometimes, we both eat out. I: Do you find living with a person with a different cultural identity difficult? P: Not really. When studying at a university, I looked for a cheaper place to live because the rental fees in KL were expensive. So I rented a cheaper place where I stayed together with some Africans. The rental fee was about RM200- RM300 a month. I felt unusual during my initial interaction with them; why did they talk so loud? So, there were cultural differences, and I felt somewhat uncertain about staying with them. As we continued to interact, things got better. No cultural problems. As long as we do not carry any prejudice in us. I: Could you please describe your current living environment and its facilities there? P: I am staying in a housing area with a clubhouse. I would use their facilities, like the gym, about two to three times a week. I: How much time do you spend exercising each week? P: Thirty minutes in swimming, so about 150 minutes to two hours a week. Recently, I wake up around 5am- 6am and go for a jog around the area. I: You also mentioned playing electronic games as a method to cope with stress. Could you elaborate on that? P: I played games to relax. I spent one to two hours each time, two to three times a week. I: Is playing electronic games a hobby of yours? P: Yes. I: How does playing electronic games help you?	WJ7: Shopping for food ingredients a relaxing activity (O1). WJ8: Doing exercise with a housemate (O1/O2). WJ27: Eating out with his housemate (O1/O2). WJ28: Continued interactions improve things when staying with people from a different culture (O1/O2). WJ9: Not carrying any prejudice helps with staying with culturally different people (O1). WJ10: Regularly using the gym facility at the housing area (O1/O2). WJ11: Regular swimming and jogging (O1). WJ12: Playing electronic games regularly to relax (O1).

P: I know there is a tendency to face challenges in a game, so I learned about communication there. You can see the other person in a game, so for every step taken, there is a strategy behind it. You need communication to win the game. It's like a gaming therapy for me. It has helped me. When most people in the group were negative, it became an opportunity for me to learn to be optimistic to face challenges. I: What other things have you learned in a game? P: Mainly emotional control. They would show their bad attitudes in an online gaming community where no one can see each other. You can be a negative target in a game. You can get angry sometimes, and you need to learn how to control yourself and communicate with the person who sabotaged you so that you can win the game. I have learned most about emotional control and communication when playing games. I: Could you further explain how you control your emotions in a game? P: When I felt that my emotions got worse, I would ask the person to keep quiet. In a game, when a person repeatedly throws out negative comments, it is disturbing, so asking him to keep quiet prevents the spread of negative vibes in the team. Secondly, I look at the positive side of things by focussing on my objectives and avoiding being distracted by other things. If you are positive and look out for opportunities, the outcome will still be positive, no matter how bad the situation is. I: Do you mean that you focus on the positives rather than the negatives? P: Yes. Whenever I am angry in a game, I ask the person to keep quiet and then do what I can to be positive. I: Would you apply the positive values you learned in a game in your real life? P: Yes. In my job, where I help manage a company, gaming activity allows me to understand that everyone has a role. This helps me assign their jobs based on their strengths and weaknesses. It also helps me communicate with them better—just like in	WJ13: Learning about communication in an (online) game (O1/O2). WJ14: Playing (online) game is like a therapy for him (O1/O2). WJ15: Taking the opportunity to learn being optimistic in a game (O1). WJ16: Learning about emotional control and communication in (online) games (O1). WJ17: Being aware of own emotions and asking people to control their behaviour (O1/O2). WJ18: Being positive by focussing on his objectives and avoiding distractions (O1). WJ19: Being positive and looking out for opportunities (O1). WJ29: Doing what he can to stay positive (O1). WJ20: Gaming activity helps understand workplace roles, thus allowing better job assignment and communication (O2).

a game. So it's like a strategy. Different people have different roles to play. Some of the more experienced people will share their past experiences, and we can learn from them. I think things can be linked together. I: Do you also follow these principles in your other living activities? P: Generally, exercise and playing games are used to deal with stress-related issues. I believe I have applied these principles in my life, but I never really think deeply. I think in life generally, yes. I: Can you explain that in the aspect of bipolar disorder? P: When I have mood swings, I let myself rest for a while. I inform my staff that I need to take a short break to calm myself. In other situations, I take a walk or go to the toilet. I know I can't make important decisions when my mood is not good. Otherwise, my boss will scold me. So, I take a walk or buy a cup of coffee to calm myself before attempting to deal with the issue. I: I see. Are the other strategies you would use besides the ones you explained earlier? P: No. I: Thank you for your participation in this study.	WJ30: Learning from others' experiences (O1). WJ21: Exercising and playing games are used to deal with stress-related issues (O1). WJ22: Taking a rest or a short break to calm down during mood swings (O1). WJ23: Taking a walk, going to the toilet or buying a drink to self-calm before dealing with an issue (O1). WJ24: Being aware of the inability to make important work decisions during poor mood (O1). (Total data fragments: 30)

Interview transcript 7	**Initial codes**
Interviewer (I): Can you tell me three ways you usually use to manage life-related stress? Participant (P): You wanted three ways related to home or work life or what? I: Your life, including your home, work, and so on. Three ways to manage or reduce your life-related stress. P: If I am stressed with my husband, I will try to avoid him. If he chooses to slam the door, I try not to notice. I try my best to be patient with him. Secondly, I am a beautician. With the current economy, things are not good from Covid onwards. Beauty business is only done when there is excess cash. So, I spent these two years improving myself. I studied acupuncture in China and already graduated. I spent a	LF1: Trying to avoid and not notice husband when stressed with him (O1/O2). LF2: Trying to be patient with husband (O1). LF3: Spending time studying acupuncture to improve self (O1).

hundred thousand ringgit. Each time I was in China, I was there for one month. I went there many times. I just got back from China. So, I dealt with my stress by focusing on my career because I would be happy if I had the money. Thirdly, my children and my maid cause me a lot of stress. My children are disobedient. When you look after your business, you can't look after your family. My husband tends to engage in leisure activities outside. Sometimes, I feel stuck in between. I asked my mother to stay with me for two months to help me around. I asked my mother to give me some time and promised her that once my traditional medicine business opens by the end of the year or next year, I will give her some shares and that she will help me in the business. I will bring her on vacation when I earn my first pot of gold. She was happy. She put her hopes on this. So, I use this method to encourage myself. I: The first method you mentioned was avoiding your husband… P: Yes, because he did not trust me. I would spend one month in China each time. He trusted his friends a lot. Meaning to say…let me show you our picture…our age difference is fifteen years. You couldn't tell from my appearance that I am already fifty years old. His friends asked him if he felt confident enough to allow me to go to China and not afraid if I had an affair with another man there. So, he was suspicious of me. But what I want is my career. Beauty business is no longer viable, and we must do something new. Nowadays, many people focus on health. Health is more important than wealth. Two weeks ago, with a small alcohol influence, I took the courage to ask him if I was his wife. He answered yes. I asked him why he listened to his friends not to allow me to advance my career. His friends advised him not to let your wife be dominant. I don't know how men think. My thought is that I want to be a superwoman. My character has always been like that. I: So, your husband has been suspicious of you.	LF4: Dealing with stress by focussing on career (O1). LF31: Perceived money as source of happiness (O2/O3). LF5: Children and domestic helper causing her stress (O2). LF32: Unable to care for family and business at the same time (O2). LF6: Husband's seldom available to look after family (O2/O3). LF7: Asking mother to stay and help around (O1). LF8: Encouraging self by putting hopes on making her mother happy by the promises she has made to her (O1/O2). LF9: Husband's distrusting her (O2). LF33: Husband's suspicious of her (O2). LF10: Wants to focus on her career (O2). LF34: Intent to do something new due to changing business situation (O1/O2). LF35: Seeing health is more important than wealth as believing the people are focussing that now (O2). LF11: Using alcohol to build courage to confront her husband (O1). LF36: Perceiving husband's friends in influencing husband to discourage her to advance her career (O2). LF12: Aspiring to be a superwoman (O1).

P: He wasn't like that until his friends kept talking to him about this. Just two days ago, I heard his friends ask him what I did to look young. He suspected me of having an affair with a younger man who helped me look that way, but I did not. We know how to look young because we have learned about Chinese medicine. I: I see that you try not to bother about him as a way to help yourself. P: If I truly bothered, I would have killed him. I have had that character for a long time. Prior to 2018 and before I started seeing a doctor in the general hospital, I had thoughts of poisoning him. I shared my thoughts with my close friend, who advised me to see a doctor in the hospital. At that time, I was in Taiping and was admitted there. The psychiatrist asked for my husband to come and counsel us together because I had the intention to murder him. I: You were unwell at that time. P: At that time, I did not take psychiatric medication. I only took sleeping pills. He tended to make a lot of noise when he opened or closed the door. I would be startled and woke from sleep. I would be very frustrated when my sleep was disturbed. I have been using earplugs since 2018 to help me sleep better. Another thing is that every day when he wakes up, I have to look at him to decide whether he is happy or not. If he is happy, I can proceed with my work. If he is not happy, be it after drinking alcohol or having an argument with others the night before, he would lash out at me. I don't like it. I: When that happened, how did you manage? P: Avoid him. I pretended I did not see him. I can't kill him. I: Any other way that you communicate with him besides avoidance? P: I preferred to stay quiet and usually gave in to him. I: How is your relationship with your daughter? P: I feel sorry that I gave birth to her, as my husband prefers boys over girls. I try my best to give her everything. I want to	LF13: Husband's distrusting her due to friends' influence (O2). LF37: Husband's suspicion of her of an affair (O2). LF38: Maintaining physical outlook through learning Chinese medicine (O1/O2). LF14: Sharing disturbing thoughts with a close friend, and receiving advice (O1/O2). LF39: Husband's making noises disturbed her sleep (O2). LF15: Using earplugs to help in sleep. LF40: Observing husband's mood during that day, and deciding her next action (O2). LF16: Husband's lashing out at her when not in a good mood (O2). LF17: Avoiding husband when he's in a bad mood (O1). LF18: Staying quiet and giving in to her husband when husband's not in a good mood (O1).

become a successful person to help her, and hopefully, she can further her studies abroad. My elder son is studying in Japan. I: How many children do you have? P: Two. One son and one daughter. I: How old is your son and daughter? P: The elder is 26 years old, and the younger is 11 years old. The second child is from the second marriage. My first marriage ended when my son was three years old. His father owed a large sum of money in gambling, and he ran away. When my son was five years old, I left for America for six years. When I returned, I started my own business. I'm a businessperson. I met my current husband one year after returning here. Before meeting my current husband, I did not trust any man. He cared for me when I was unwell. I accepted him as I felt his sincerity towards me. I: Who are you currently staying with besides your husband and daughter? P: My maid and my mother. I asked my mother to come over about two months ago. I: You mentioned asking her to help you with your work earlier. How is your relationship with your mother? P: It wasn't good previously. We only met once or twice a year. Since she started staying here, she realised I looked good on the outside but not in reality. She thought my relationship with my husband was very good, and he was very rich. But when I tried to claim from him the things I paid beforehand, like shopping bills, doctors' consultations, and phone and internet bills, I was severely scolded. My mother knew then. I didn't use the money to gamble. I used it for our home. That's how he treated my mother's daughter. Since then, my mother knew I wasn't as blissful and was not keen to leave me. So, my mother has encouraged me a lot. I am planning to open a Chinese medicine business, and my mother asked me to proceed with my plan. She promised she would help with my business. She said not to be looked down by other people. I: Besides your mother, who else are you close to within your family?	LF19: Trying her best to give her daughter the best by being a successful person (O1). LF20: Receiving care from husband when unwell (O2). LF21: Receives severe scolding from the husband when trying to claim bills from him (O2). LF22: Receiving mother's encouragement and support (O2).

P: My younger sister. The siblings' relationships are not good, but they all gather when bad things happen. When I was scammed, they all came. When my younger sister knew that I was being scammed for half a million ringgit, she immediately drove from KL. She was worried that I would attempt suicide. I can see their support. I also invited my sister to work with me as she's being jobless. I: The second method you mentioned was about improving yourself, and you went to China to study Chinese medicine. Could you please elaborate on that? P: Very few women practice traditional Chinese medicine in Malaysia. Some of these women are the wives of husbands who are traditional Chinese practitioners, and they help out here and there. Mine is a full course. I: Why did you choose Chinese medicine? P: I need to give you a lesson now. Herbal medicine existed 5000 years ago. I didn't quite believe it in the beginning. After the second reading, it left some impression on me. After the third reading, I began to see it. After the fourth reading, I believed it. I used the knowledge to help myself. You will be surprised when you see my picture. I was constantly hospitalised in the past. As a practitioner, I can only sell the products but won't use them on me due to the costs. When I suffered from this, I didn't want to prolong this anymore. I took that many medications. I almost died during this Chinese New Year. Do you know that I had surgical operations almost on a yearly basis? My internal organs were unhealthy. If I didn't heal myself, I would have died. I also studied Feng Shui. I can know a person's health and illness in relation to one's birth and death by doing some calculations using their birthdays. I have learned about burial and cemetery rites. I: So, you have learned so many things. How do they all help you? P: They are all related to herbal medicine. You asked a very good question. This is the area above the umbilicus. The area around the umbilicus is important for one's health	LF23: Receiving siblings' support when bad things happen despite not in a good relationship (O2). LF24: Taking advantage that few women in Chinese medicine by learning about that (O1). LF25: Using knowledge learned to self-help (O1).

and longevity. I have read about a man who has a sexual disorder, and a traditional healer helped him in that area. See how I look better now. I was ill during the Chinese New Year and was admitted to the hospital. I spent RM 40 000 on treatment. I: Has your illness affected your mood? P: I had many inflammations in my body, including a kidney infection. And I can't use the traditional treatment at that time. After I had completed the traditional treatment, I returned to the hospital for further investigations, but nothing was found. No more breathlessness. So, why I needed to study this…regarding the elements water and air. ***[She went on describing things related to her practice which were not related to the methods that she used to help her manage her life-related stress.]*** They are related to circulation in the body. When you massage, you will get bloating if you don't keep the outlets closed. The things I see consist of five colours. Based on your birthdate, we will decide which colour to match. Fire will lead a person to have a heart attack. Wood is related to the liver, eye, and spleen. Water is related to the kidney. Soil is related to the skin. I feel that I am talking too much. Our skin influences our internal organs. Things get transported from our skin to the liver, heart, intestines, and so on. There will be many issues if our skin is not good. That's why you need to learn these things. I: Do you learn these things to help yourself? P: Yes. You need to learn all these elements. If you don't learn these when a client comes up to you and says that he has fire, fire means heart, but he has no heart issue. If he is given the two essential oils related to the heart, his life span may be reduced. If the person says I like green, but green is for women's problems. If he puts too much, he may have sexual disorder. That's why I go teach this in many places. I: Do you find yourself hectic with all these things? P: I like to be occupied and busy. I don't like to deal with	

my family. I like to be with outside people. I like it when people acknowledge and agree with me. I like it when the sacrifices I made to learn new knowledge and experiences are shared with people on stage, and they give me applause and also meet with the people who join the talk. You can use it to make you stronger if you have no illness. But if you have an illness, you need to go to the hospital because I'm not a doctor to treat you. After you have completed your treatment and you feel weak, you can come back, and I will help you. I: In addition to these three ways, are there any other ways that you would use to help with life-related stress? P: No. I like this the most. I like to learn. I: Did you spend a lot on your personal learning? P: Yes. I: And you are financially capable? P: Yes. I have no choice. I was scammed previously. I considered investing in this field to earn enough money to repay my husband. I don't want his scolding. I also owed the company money. I told myself that when my business succeeds, and all debt is paid, I can buy a car. I already have a house. I can then leave my husband. I can feed myself. I: How is his treatment of you now? P: He prefers me not working because he expects me to send him and pick him up from where he drinks with his friends. Then, you will be there playing with your phone for many hours. Sometimes, I will be honest with him that I dislike being there. He likes it there because they can talk about what they like. I: Thank you for your participation in this study.	LF26: Being occupied and busy to avoid dealing with family (O1). LF27: Meeting outside people to gain acknowledgement of and agreement from others (O1). LF28: Learning new knowledge and sharing with others on stage (O1). LF41: Earning money to repay her husband and avoid his scolding (O1/O2). LF29: Husband prefers wife not working, and to accompany him whenever he's out drinking with friends (O2). LF30: Being honest with husband about disliking to join him for drinks with his friends (O1). (Total data fragments: 41)

Interview transcript 8	**Initial codes**
Interviewer (I): Could you tell me three ways you usually use to manage life-related stress?	

Participant (P): Sleep, go for a walk, and watch movies. I: You mentioned first about sleep. How does that help you? P: Whenever I argue with people, I sleep to prevent myself from thinking about it. I: Can you explain further who is involved in the argument? P: My family. I have been doing that in the past. I was bullied at my school dormitory then, and because I had no way to go after arguing with them, I decided to sleep instead. I: Do you find it helpful every time you do that? P: No. I: How is your relationship with your family? P: We always argue. We don't agree with one another. For example, my parents will think one thing is right, and I will think the opposite. From something minor to something significant, we have different opinions. What they want is not the same as what I want. Their opinions are different. Even simple things like food tastes, we are different. When we go out, we have to follow what they want to eat. I am ok once in a while, but I have to always abide by their wishes. Just because I am their child, I don't feel right as I need to submit to them all the time. Some people may say it's just about food, but if I have to experience this every time, I won't feel good about it. I: You feel like this is not fair for you. P: Yes. I: Who are you currently staying with? P: My parents. I: Anyone else besides them? P: Only my parents. My elder brother works in Negeri Sembilan, and my younger sibling studies in Terengganu. I: You are the middle child? P: Yes. I: Who in the family whom you feel close to? P: I am close with both my siblings, but I feel close to them yet far because when we gather as a family, I feel excluded. I: Why?	NN1: Sleep to prevent thinking about her argument with other people (O1). NN2: Frequent arguments with family due to disagreements and different opinions (O2). NN3: The need to submit to her parents' wishes all the time (O2). NN23: Wants her desires and needs to be met and respected by her parents (O3). NN4: Feeling excluded from the family (O2).

P: Maybe we are different from each other, as we all do. I: Will you get help from your family when needed?	
P: No, especially my parents. Things will get worse if they do. For example, my father tends to take things lightly. He will say things like, "It's only a small matter. During my time, I could handle it. You are weak and not strong." He likes to do that. On the other hand, my mother tends to nag a lot.	NN5: Not requesting help from family as perceived things will get worse (O1/O2). NN24: Father takes things lightly and being critical and mother nags a lot (O2).
I: Do they treat all children the same way? P: Yes. I: Would you say that that's their character? P: Yes. Their character. They have been the same since I was younger. I: If you have any issue, whom would you ask for help?	
P: No one. I didn't have close friends when I was in primary and secondary school, and I was bullied. I only started having friends I could talk to when I entered university.	NN25: Not asking anyone's help if any issue (O1).
Even so, I did not fully share my problems with them because I worried they would be uncomfortable. I preferred to keep my issues to myself, and I was concerned that they might judge me when I shared with them.	NN6: Worrying that others might be uncomfortable or judge her when she shares her problems (O2).
I: Do you have close friends now? P: Yes. I: Have you asked for their help so far?	
P: I think only once or twice because I always feel uncomfortable telling others my problems. People say you will feel better when you talk it out, but not me. Whenever I share my concerns with others, I worry that I might be judged.	NN7: Feeling uncomfortable sharing her problems and worry about being judged (O2).
I: What type of help do you usually ask from your friends?	
P: Only problem-sharing. I: I see. The other way you mentioned earlier is going for a walk. How often do you go out, and to where?	NN26: Sharing problems with friends (O1/O2).
P: I used to go to the mall or some places, but nowadays, I seldom go out because of transportation issues. When I was studying at the university, we went out when there was no class. After I completed my studies and returned home, I did not go out often as my parents were working. So, there is this	NN8: Seldom going out due to transportation issues (O2/O3).

barrier preventing me from going out. In the past, when I went out, I felt a sense of stress relief. But now, even after I go out, I don't feel it helps, and I don't feel happy whatever I do. I: I see. How far is your house from the nearby shops? P: Some are about two kilometres, and some around five to six kilometres. My house is close to the Giant supermarket and Queensbay Mall. I: Do you find it challenging to access the facilities at your place? What do you think about the surrounding facilities there? P: Not really. There are sundry shops nearby. There is a place for recreational activities. If you have a transport, it is near. I: You mentioned using your phone earlier. What do you usually use the phone for? P: Watch movies and TikTok. I: How is that helpful? P: I won't think about my problems when I do that. I: Are there other ways you use to manage life-related stress besides those you shared? P: Artwork. I draw or do some colouring. I: Since when did you start doing that? P: Since I was young. However, I stopped doing that for a long time until the occupational therapist shared a few things I could do. That's when I picked up the activity again. I: How does that help you? P: I feel good when I look at the outcome of my work. I: How does the OT activity help you? P: It helps me to focus on the work, although it's not a complete focus. It helps me not to think about my problems. I: What about the support from the OT? P: I feel positive there. Probably, it's the environment, and it's away from home. I: Is anyone from OT close to you? P: No. I find it challenging to be close to anyone. I feel nervous around people, for example, at a gathering. I am afraid that people will offend me, or I will offend people. I: Did you discuss your fear with your psychiatrist?	NN9: Going out a form of stress relief (O1). NN27: Not difficult accessing facilities near housing area (O2). NN10: Watching movies and TikTok on the phone (O1). NN11: Not thinking about her problems when watching movies and TikTok on her phone (O1). NN12: Doing artwork (O1). NN13: Pick up artwork again after suggestions by the occupational therapist (O2). NN14: Feeling good when looking at her artwork (O2). NN15: OT activity helps to focus on the work and not think about problems (O2). NN16: Feeling positive about the OT environment (O2). NN17: Feeling anxious around people and worry about offending people and vice versa (O2).

P: Yes. I: How is your current treatment? P: It's ok because I take my medication. I find the medication quite sedative. It's ok now because I am not working. I: How often do you come for treatment? P: Once a month. I: How do you find coming here? Is there any difficulty coming here monthly? P: No. My parents are fine sending me here. No problem. I: Can I ask about your past work experiences after you graduated from the university? P: Yes. I have worked as a cashier and a salesperson in a boutique before. I worked as a cashier after I completed my studies. I was still in Kedah and was reluctant to return home to Penang due to some problems with my parents. So, I worked there while staying with my friend, who was still studying until she completed her studies. After that, I returned to Penang and worked at a boutique. I stopped working later due to some issues with my colleagues. I: Could you elaborate on your relationship with your colleagues? P: The ones I worked with when I was a cashier were okay, but the ones in the boutique were problematic. Before working there, I was informed that one full-time employee was difficult to work with, but I thought if I didn't cause any issues with her, then there would be no problem. But I found out later that what others said was correct, and I decided to stop working. I: Is there any other way that you would like to share? P: No. I: Thanks for your participation in this research.	NN18: Feeling sedated with medication (O2). NN19: Coming for regular monthly treatment (O1). NN20: No problem attending the clinic as being sent there by parents (O2). NN21: Avoid returning home after studies and staying back to work due to problems with parents (O1). NN22: Quit job due to some problems with colleagues (O1). (Total data fragments: 27)

Interview transcript 9	**Initial codes**
Interviewer (I): Can you tell me three ways you use to manage your life-related stress? Participant (P): I would talk to my friends or family, listen to music, or take a walk outside.	ZP1: Talking to family and friends (O1). ZP2: Listening to music (O1). ZP3: Taking a walk outside (O1).

I: So you mentioned talking to family or friends, listening to music and taking a walk outside. P: Yes. I: How is your relationship with your family? P: My relationship with my family is very good, especially with my brothers and mother.	ZP4: Good relationship with family (O2).
I: Who do you find is closest to you? P: My second brother. I can talk a lot with him.	ZP5: Shares many things with his brother (O1/O2).
I: So, do you share your life issues with him? P: Yes. I: Do you stay with your brother? P: Yes. We all stay together as of now. I: What position are you in terms of siblinghood? P: I'm the youngest. I have two older brothers. I: Do you share your life issues with other members of your family? P: Yes. My mother.	ZP6: Sharing life issues with mother (O1/O2).
I: How do they help? P: They will support and encourage me. When I tell them my problems, they will advise me from a more mature perspective.	ZP7: Family provides support, encouragement, and by giving advice (O2).
I: Do you mean that they share their opinions from a different perspective? P: Yes. I: What have you learned so far? P: I learned that a particular issue can be approached from a different angle, and what I perceived might not necessarily be true.	ZP8: Learning to see an issue from another perspective (O1).
I: I see. How else does your family help you? P: They mainly provide me with their moral support.	ZP9: Family provides mainly moral support (O2).
I: What about your friends? P: They are good. When I was in secondary school, they would help out whenever I had problems. They helped me in my studies by teaching me some subjects and taking notes. I: Do you seek help from your friends with life-related issues? P: I sometimes ask for their advice if I have life issues because we are almost the same age, and they can relate.	ZP10: Asking advice from friends of similar age as they can relate (O1/O2).

I: The second method you mentioned was listening to music. Is this your hobby? How often do you do it? P: Yes. When I am at home, I usually listen to music.	ZP11: Listening to music at home (O1).
I: How does music help you? P: I feel what the singers have written in their lyrics. I can relate to them.	ZP12: Feeling the meanings of the lyrics (O2).
I: Another method you mentioned was taking a walk outside. Could you elaborate on that? P: My family and I would spend time at Georgetown or Tanjung Bungah.	ZP13: Spending time with family outside (O2).
I: Is transportation an issue for you? P: Not really, because my parents are not working on weekends and we go then. I: Both your parents are working? P: Yes.	
I: So, how do you spend your free time on weekdays? P: When I am not studying, I will stay at home. Previously, I worked part-time.	ZP26: Staying at home when not studying at college (O1).
I: When did you work part-time? P: Last semester, after SPM results. I: You are not working currently? P: No. The semester break is over, and I am continuing my studies.	
I: How is your study environment? P: The environment is quite good. The institution compound is big, and more Chinese people are there. So, there is not much of an issue in terms of communication.	ZP14: Good study environment, and more people of the same race there helps in communication (O2).
I: How do you find the mental health support there? P: There is a mental health support service like Peer Support Society. I have joined them before and helped in campaigns for awareness, like bullying.	ZP27: Available mental health support service in college (O2). ZP15: Joining and helping with mental health awareness campaigns in college (O1).
I: What other areas do you think the institution can support you? P: I think participation in societal activities. I can meet and communicate with people with similar interests.	ZP16: Meeting with people of similar interests in clubs/societies in college (O1).
I: What is your interest? P: I like to listen to music and sing. So, I join the university's music society.	ZP28: Likes listening to music and singing (O1). ZP17: Joining music society (O1).
I: Do you play musical instruments? P: I am still learning. I learn from the Internet, like YouTube.	ZP18: Learning to play musical instruments from the Internet (O1/O2).

I: Do you frequently surf the Internet? P: Yes. I frequently surf the Internet to learn certain things. I also listen to music and watch movies. I: Let's talk about your previous work. What did you work as? P: I worked as a salesperson for women's clothes and accessories. The employer treated us well. I: What about the other colleagues? P: They were all good. I: Did they know about your psychiatric treatment? P: No, I did not tell them. I did not want them to worry or think too much about it. I: What about your university? P: A few of my friends are aware of my mental health condition. I: Are there other methods you haven't shared here? P: I will go to the temple to pray. I: How does that help you? P: There are certain temples with shamans, and I go seek their advice. It's like a guidance for me. I: How frequently do you go to temples? P: I only seek a shaman's advice when there is any significant issue. I go once a few months for casual temple visits. I: Is there anything else you would like to add? P: No. I: Thanks for your participation in this study.	ZP19: Using the Internet to learn, listen to music, and watch movies (O2). ZP20: Good treatment from the employer (O2). ZP29: Good relationship with work colleagues (O2). ZP21: Not disclosing mental health conditions to colleagues as not wanting them to worry or think too much about it (O1). ZP22: Disclosing mental health condition to a few friends (O1). ZP23: Going to the temple to pray (O1). ZP24: Seeking advice and guidance from shamans (O1/O2). ZP25: Regular temple visits for prayers (O1). (Total data fragments: 29)

Interview transcript 10	**Initial codes**
Interviewer (I): Could you please share three ways you usually manage life issues, such as stress? Participant (P): I will talk to other people when I am not happy. I realise that after talking to them, my mood will become better. Another way is to watch videos. Also, I eat sugary food. It helps improve my mood. If my mood is severely disturbed, I will talk to my mother. I: I see, so your first strategy is to engage in social interaction by talking to others when	KH1: Talking to others, watching videos, and eating sugary food help improve mood (O1). KH2: Talking to his mother when in a bad mood (O1).

you're feeling down. Could you elaborate on that?	
P: I am Buddhist and regularly attend meetings. In them, we are encouraged to talk to others. So, when I see someone with similar issues to mine, I encourage them. I feel happier when I encourage someone. It's better that we interact with others than be alone, or you will not be happy.	KH3: Attending religious meetings regularly (O1). KH4: Being encouraged in religious meetings to communicate with others (O2). KH 5: Encouraging others with similar issues makes feeling happier (O1).
I: Do you have anyone specific that you tend to communicate with?	
P: No one specific: strangers, friends or my clients.	
I: You mentioned earlier that you would talk to your mother when you were in a bad mood…	
P: Yes. I am close to my mother.	KH6: Being close to the mother (O1).
I: Who are you staying with at home?	
P: My mother and elder sister. My father passed away.	
I: How is your relationship with your sister?	
P: So-so. She doesn't care much about me but doesn't treat me harshly either. She's busy with her work. Sometimes we talk a bit.	
I: Besides talking to your mother, what other support do you think your mother provided you?	
P: She diligently helps manage the housework, such as preparing meals and cleaning clothes, allowing me to focus on my work. I know I can't multitask, unlike some who can care for their children, work, and participate in social activities. For me, just working alone has used up all my time. I am slower in doing things. This caused me a lot of stress when I was doing my matriculation studies, which triggered my illness.	KH 7: Mother helps provide his daily needs, allowing him to focus on his work (O2). KH 8: Not being able to multitask (O2).
I: So, your illness started back then?	
P: Yes. My condition has improved as I have experienced many things over time. My current job as a property agent is very busy; I need to reply to many messages and meet with clients. I used to be a math teacher, teaching the subject I liked. The school principal and colleagues were encouraging. After work, I would go out with colleagues for social activities. I struggled for those few years as a teacher	KH52: Illness condition improves due to many experiences over time (O2). KH53: Busy workload (O2). KH9: Teaching a subject he likes (O2). KH10: Colleagues who are encouraging (O2).

because of the heavy workload. I needed to mark assignments and help the school principal look after the students. I: What about your current job? P: I also like this job, but I am more occupied because I don't have a fixed time to rest. I feel stressed because when I wake up in the morning, I need to reply to a lot of messages. After that, I need to meet with clients. When I return from work, it's already nighttime. Sometimes, I envy other people who work on weekdays and rest on weekends. I: Do you find time to rest? P: Not much time to rest…only weekday. There was a time I felt high, around December or January until March or April, because of the high workload, and I needed to work almost every day. I: So, how do you cope? P: I cope by eating. I like eating, and my mood usually improves after that. I also feel that the approval I receive from my clients after talking to them makes me happy. So, I find that after talking to people, my mood improves. My mood was not too good, but I feel better after just talking to the doctor a while ago, and now you. I: Can you tell me about your work environment? P: The current work environment is quite good because no politics is involved. Besides, the working hours are flexible. I can arrange my work after I have had sufficient sleep. If I work at regular hours, I will have to wake up around 5 or 6 am, and I may get caught in traffic. I will be tired upon reaching the office. I do not like mechanical engineering, even though I graduated with a good degree. I wanted to take up a teaching degree but did not. So, being a property agent suits me as I can talk with them and help them solve their housing or legal issues by introducing them to the right professionals. The work is not difficult, but recently, the workload has been heavy. I must deal with many things, like seeing clients, prior preparations, and office meetings. When I have more free time, I need to reply to around 100 messages.	KH11: Going out for social activities with colleagues (O2). KH12: Struggling with teaching due to heavy workload (O2). KH13: Feeling stressed due to the amount of work and no fixed time to rest (O2). KH54: Envying other people with fixed time for rest during weekend (O3). KH14: Limited rest time (O2). KH15: Cope by eating as it helps improve mood (O1). KH16: Talking with others and getting their approval help improve mood (O1/O2). KH17: Pleasant work environment without politics (O2) KH18: Flexible work hours (O2). KH55: Start working after sufficient sleep (O1). KH19: Using his talking and helping skills in his work (O1). KH20: Heavy workload (O2).

I: I see that you can be very busy at times. Does any of your colleagues help to lighten your workload in any way? P: Yes. My previous colleague left the company, and I reassigned her work to another colleague. So, she helped me set up the slides, create the advertisements, and prepare some documents. I: If needed, would you ask for your colleague's help? P: Yes. Whatever profit gained afterwards will be shared accordingly. I: Are your colleagues aware of your current psychiatric treatment? P: No, they don't know. I: Is there a reason why you do not disclose your treatment to them? P: No, but my close friends and relatives, like my aunt and cousin, know about my condition. My relatives are concerned about me, and my aunt called my mother yesterday to ask about me. I: How is your relationship with your relatives in general? P: We are good. We sometimes talk on the phone. When I call my aunt, we usually talk for about 30 minutes to one hour. We talk about life and work. Sometimes, she talks about her life issues, and I tell her about my condition. Yesterday, she called my mother and asked how I had been doing. I: Can you talk a bit about your close friends? P: I have one close friend who has bipolar disorder. He is a lecturer in Kampar. We knew each other in USM. His illness is more severe in that he was previously hospitalised for that. I know he is taking four types of medication. He usually calls me once a month, and we update each other about ourselves. When I notice changes in how he speaks, I will inform his wife. I: So, what have you learned from your friendship with him? P: Initially, I did not know too much about my illness condition. My mother also talked with his mother. Now, we are more aware of the presentation of illness. My friend is not the type who can express himself or counsel others. We care for each other like normal	KH21: Reassigning work to another colleague (O1). KH22: Sharing workload and profit earned with colleagues (O1). KH23: Not disclosing mental health treatment to colleagues (O1). KH24: Awareness of illness by the people close to him (O2). KH25: Receiving concerns from relatives (O2). KH26: Close relationship with relatives and sharing of personal issues (O1/O2). KH27: Sharing about patient's condition among family members (O2). KH28: Mutual support with a friend of similar illness condition (O1). KH29: Supporting a friend with a similar condition by alerting the friend's family when the friend was unwell (O1). KH30: Becoming more aware about the illness through involvement of their families (O2).

friends would do. He would look at his condition from a Christian perspective, and I would do the same from a Buddhist perspective. Sometimes, I would join his church meetings, and he would do the same. We support each other.	KH31: Seeing illness and supporting each other from a spiritual perspective (O1/O2).
I: Do you mean that you have also learned about bipolar disorder through your friendship with him?	KH56: Joining religious meetings (O1).
P: Yes. I am now more aware of the illness presentation. Also, when he is depressed, I would counsel him. I also realise that when you talk to someone who has no previous experience of bipolar disorder, he will not fully understand you. But when you talk to someone who has bipolar disorder, even though he may not be able to answer, he can understand you.	KH32: Being aware of the illness through friendship with someone with similar condition (O2). KH57: Counsel friend when he's depressed (O1/O2). KH33: Realisation that people with similar condition understand each other better (O2).
I: Do you have other friends who can provide you with similar support besides the friend you talked about?	
P: Sometimes, I would tell my other friends about my mood condition, and they would help monitor me. But they don't really understand about my illness condition. I have another friend who has depression but not bipolar disorder. We would encourage each other.	KH34: Receiving help from friends to monitor his mood (O2). KH35: Mutual support with a friend with depression (O2).
I: I see. The second way you would help yourself was by watching videos. Can you tell me more?	
P: I like to watch YouTube videos about psychology and counselling. In the evening, I watch movies.	KH36: Watching videos about psychology and counselling, and movies (O1).
I: How does this method help you?	
P: It helps me by focussing on the present and not on something unhappy. It helps me not to ruminate about negative things.	KH37: Watching videos helps to focus on the present moment and prevents rumination (O2).
I: Right. You also mentioned using eating to help yourself…	
P: My family and I love eating. I am happy when I eat. Sometimes, I travel with my family to eat. Also, after work, I sometimes find the food I like to eat.	KH38: Travelling with the family to eat (O1). KH39: Finding preferred food to eat after work (O1).
I: How easy is it to travel from where you live to buy food?	
P: No nearby places sell food, and you need to drive around three minutes to the location. My mother will also prepare food at home. Like recently, my mood was not	

good, and my mother was not at home, but I was still able to go out to buy food despite feeling not too comfortable in public. I: So, when your mood was not good, did you seek professional help? P: Yes. I also managed to find an online counselling service and seek treatment from a private psychiatrist. I: What do you think about your current treatment? P: The medication I am taking causes sedation and drowsiness. But they can help control mood and prevent manic symptoms like excessive spending, feeling grandiose, and talking loudly. I: So medication can help control mood, but also they come with side effects. P: Yes. Hopefully, new medicine in the future can help stabilise mood without causing excessive sedation. I: Besides medication, how's your interaction with your treating doctor? P: The interaction is fine. However, I find that the Malaysian mental health system could be improved in that the treatment should include counselling. In the UK, where my friend works, they give both treatment and counselling. But in Malaysia, when you have a problem, you will be given medication mainly. Maybe in our lives, we face a lot of issues. For example, at work or when we have negative thinking, taking medication can only stabilise the emotion, but how do I tackle the negative thoughts or rumination thoughts? Or what do I need to do every day to maintain well-being? I have tried counselling therapy in this hospital, and it was done in Malay. So, I have difficulty expressing myself. Maybe it was also a lack of professionalism. It did not help much. I: What do you mean by lack of professionalism? P: I was not given much help, and I did not see the result. Also, the person did not appear to be attentive to our conversation. I: I see. Besides the ones you have just talked about, are there any other methods or ways that you would use to help yourself?	KH40: Seeking and receiving mental health support when mood is not good (O1). KH41: Experiencing sedation and drowsiness with medication (O2). KH42: Medication helps control mood (O2). KH43: Needs medication that does not cause excessive sedation (O3). KH44: Needs improved mental health treatment in Malaysia, i.e., to include counselling, and not focus on medication mainly (O3). KH45: Difficulty expressing self in counselling when done in Malay (O2). KH46: Counsellor not attentive during conversation (O2).

P: Another thing is related to work. You will feel happy working daily when you focus and do the things you like that align with your character. This is what I did with my studies, teaching, and current profession. So, I am doing what I like to do. When I worked as a teacher, I only took minimal medication. Maybe I also had a bit of mania at that time, but it helped me in improving my thinking. In exams, I spent two hours answering six questions when normally the same duration to answer four questions, but I got good results. The mania increases my self-esteem, gives me confidence, and helps me learn faster. But you can't exceed the limit. Once it is exceeded, your mood will become unstable, like easily irritable, excessive spending, many ideas, and strong sexual desires. I: Were you aware when they happened? P: Sometimes, but initially, you would think you are normal. Later, you realise that you are high and irritable, then you will know something is not right. In the beginning, you feel good because your productivity increases. Gradually, your ability to focus deteriorates. But I have not had any hallucinations before. I: Is there anything else you would like to add? P: I prefer to live simply because I can't multitask. I am not planning to get married and do not intend to buy many things so as not to give myself too much commitment. Sometimes, I feel sad, but at least I do not need to worry about them. When I worry less, this will also help in my illness. I: I see. Any other thing you want to add? P: No. I: Thanks for sharing your experiences and willingness to participate in this study.	KH47: Focussing and doing the things that he likes (O1). KH48: Mania helps in thinking, self-esteem, confidence, and learning (O2). KH49: Mania, when it has exceeded its limit, causes mood instability, excessive spending, flight of ideas, and strong sexual desires (O2). KH50: Realising that something is not right when mood becomes high and irritable (O1). KH51: Preference for simple living to have less worry, and in return, helping illness condition (O1). (Total data fragments: 57)

Interview transcript 11	**Initial codes**

Interviewer (I): Could you share with me three ways you would do to manage life-related stress?	
Participant (P): Firstly, I smoke cigarettes. However, I don't do it at work. When I return home from work, I use smoking to help me relax from the work stress.	WP1: Smoking cigarettes to relax from work-related stress (O1).
Secondly, I use medication in the morning…because I work the night shift. When I return home from work, it's already 1 am. So you can't immediately fall asleep.	WP2: Taking medication (O1).
For those who work night shifts like me, we sometimes have trouble sleeping in the morning. So, I need to depend on the medication. You all call it a sleeping pill, but for me, it's only useful to help induce sleep because it will lose its effect if you don't sleep within half an hour, and it can only stay asleep for one hour.	WP31: Trouble sleeping due to working night shifts (O2). WP32: Depends on medication to help sleep (O1).
I also take this medication (he took another prescribed medication out of his bag), and it helps me maintain my sleep throughout.	WP3: Taking medication helps maintaining sleep (O2).
I: So, do you mean you use both cigarettes and medication to help yourself?	
P: Yes. With a controlled quantity as long as you don't overuse them. For example, two to three sticks of cigarettes a day should not be a problem.	WP33: Controlling cigarette and sleeping pills used (O1).
I: How exactly does smoking help you?	
P: I sometimes feel tired and stressed when I return from work. Smoking a cigarette gives you a relaxing sensation. But if you smoke more than 10 cigarettes a day, you will not feel anything. Also, listening to music is another very good method to help with relaxation.	WP34: Stress and tired from work (O2). WP4: Smoking cigarettes is relaxing (O1). WP5: Listening to music helps with relaxation (O1).
I: How much do you smoke in a day?	
P: I tend to smoke more when I am stressed, such as when I am anxious or worried.	WP35: Increase smoking when stressed, anxious or worried (O1).
I: Right. How's your emotional state with the current medication?	
P: My emotions are stable at the moment. My current medication regime maintains them. There was a time when they kept changing my medication, and I could not tolerate it, so I made a complaint to the department. They were not helping with my bipolar illness. Due to that, I could not work for three to six months. Some of the doctors seemed inexperienced. They increased my	WP6: Current medication regime helps maintain stable emotions (O2). WP7: Making a complain to the department after repeated intolerable medication changes which resulted inability to work (O1/O2).

medication, which I thought could help me sleep better, but it did not. It made me sleep until I did not feel like getting up. So, a doctor asked me to report to a department. Since then, they have maintained the current regime that works for me. It has been the same for many years now. If they keep changing medication, it will not benefit the patients like me. I: So, this regime is the best for you? P: Yes. It was this regime in the beginning, but they changed the medication, and they said the medication supply was not under their control. I told them it would be very difficult for us as we really need this medication that could help us to stabilise the illness. I: What do you think about your current relationship with your treating doctor? P: We are ok. They are all friendly. I: How often do you come here for follow-up? P: As I am currently stable, it is once every six months. I usually sleep in the daytime after breakfast. I will also wake up for lunch. Towards the evening, I will have my dinner before I go to work. I: What are you working as? P: I work at Batu Ferringhi selling souvenirs. My working hours are from 7 pm to 12 am. Although the work time is short, it has turned my day and night upside down. I need to be energetic at work. It is not a simple job because I need to stand for five hours to serve customers and arrange things there. I: Are you able to manage your job so far? P: It's better now that there are two of us. Due to the economic downturn and to reduce costs, my boss only hired one person. As the situation improved, he decided to hire another. It was difficult when one person needed to do two people's work. I: How is your relationship with your boss? P: We are good. We have known each other for many years. We are friends. I: What about your relationship with your colleague?	WP8: Experiencing excessive sedation with medication (O2). WP9: A doctor's advised to report the treatment issue with the department to resolve the issue (O2). WP10: Repeated medication changes by the doctors not benefitting (O2). WP11: Initial medication regime discontinuation as their availability is beyond the treating doctors' control (O2). WP36: Speaking up with the doctor for his (and others') treatment needs (O1). WP12: Treated by friendly doctors (O2). WP13: Attending regular clinic follow-up (O1). WP14: Work time turns the day and night upside down (O2). WP37: Job requires standing for many hours (O2). WP15: Job management is better when working with another colleague (O2). WP16: Good relationship and a friend of his employer (O2).

P: We also worked together for many years but stopped during the COVID-19 pandemic. We only started to meet again in the last two years. I: You mentioned listening to music as another method you use to manage life-related stress. Are there other ways you have not mentioned?	
P: I think it would be good if I could exercise. I don't really have much time to exercise because I sleep during the day. Sometimes, after work, I would take a shower and go to my friend's apartment, which is 30 stories high. I would climb from the ground floor up to the 30th floor. Then, I would take a life down and climb up again. I could do it all in 15 minutes if my stamina is good. If you need more than 15 minutes, it means that your stamina has reduced. If you don't do it regularly, you may not be able to do it… every 30 stairs is 7 minutes. But individual stamina is different…I feel 7 minutes is the standard. If you don't do it often, it can take 8 minutes. If you do it more often, then it improves to 7 and ½ minutes. If you do it more consistently, it goes back to 7 minutes. So, exercise is good for our bodies, and we need to exercise regularly.	WP17: Lacking time for physical exercises due to sleeping in the day and working at night (O2/O3). WP18: Engaging in climbing stairs as a form of exercise after work sometimes (O1). WP40: Awareness of the importance of exercise for him (O1).
I: So, how often do you exercise?	
P: It depends on my mood sometimes. I really want to do it, but at times, I don't have the mood.	WP19: Frequency of exercise depends on mood (O2).
I: How does exercise help you specifically?	
P: If you reach a certain level of exercise, you will feel good and satisfied. You will feel happy when you do the exercise and sweat it all out. That feeling is priceless. You need to reach that level of exercise before you get to feel it. But the good feelings don't last for one or two days but only a few hours.	WP20: Exercise helps by gaining good, satisfied, and happy feelings after that (O2)..
I: Besides exercise, are there other ways you would use to deal with life stress? P: No. I: Let's talk about the place you live. Does it have exercise facilities, such as a gym? P: No. Not anymore. No one wants to go there. All apartments or condominiums are the same. When you first bought it, you	

would be impressed with the swimming pool and gym, but when you got home from work, you would be too tired to use them. Maybe in the beginning, you would bring children there, but after some time, you would not feel like going there. I: What about the facilities near your place? P: I am living at Jalan Sultan Ahmad Shah. The opposite is the sea, so the air is good. Good air is very important. I have been to my friend's place, where the air was stuffy. I wasn't comfortable there, as I have good air quality at my place.	WP21: Good air quality in the housing area (O2).
I: Speaking about your friendships, would you ask for their help when your condition or mood was not good? P: When my mood was not good, I would call and talk to my friends. They would advise me.	WP22: Calling and talking to friends when the mood is bad, and receiving friends' advice (O1/O2).
I: So, they have been helpful. P: Yes. I: Do they know about your mental health treatment? P: Yes. They know. I will only tell my close friends.	WP23: Only discloses mental health condition to close friends (O1/O2).
I: Who do you live with currently? P: I live with my father. My wife and I have been separated for more than 10 years. My son works at KL, and my daughter is also studying at a university there. I: How is your relationship with your family? P: My relationship with my children is not good. They sided with their mother.	WP38: Relationship with wife and children not close (O2).
I: Who are you closest with in the family? P: My siblings and uncles. Our relationship is good.	WP24: Good relationships with siblings and uncles (O2).
I: How do they help in your life? P: At the moment, they don't help in any way. Instead, I helped them in the past. I: You mentioned that your relationship with them has been good. P: Yes. They have loved me since I was young and to this day.	WP25: Being loved by his siblings and uncles (O2).
I: So love keeps the bond among you all. P: Yes. Whatever I have done wrong in the past, they have forgiven me, like unconditional love.	WP26: Being unconditionally forgiven of his past mistakes by his siblings and uncles (O2).
I: Is there anything else you would like to add?	

P: During my illness relapse, I tend to sleep a lot, almost a month, especially if I don't take medication. My mind would be different than usual. Everyone is different, and all doctors know about it. It all depends on whether it exceeds the limit. Mine is bipolar 2, which does not exceed the limit. But if you take medication that can cause you to exceed the limit, then this is not advisable. Some medicines can cause you to exceed the limit. The medications I am taking now won't cause that. I have previously taken some medications that caused that, which resulted in excessive spending and all. I then realised I was not right, and I told the doctor that the medication did not suit me. The disadvantage of that state is that it caused me to be unable to work, but on the positive side, it helped my mind to become more sensitive and cleverer. I would be able to perceive things which I normally couldn't. I have heard from a specialist who told me that an engineer was surprised when he could help him solve a problem when he was in that state. However, the effect of that state only lasted for a few days, although many people wanted to remain in it for a long time. I would write down all the ideas that I had during that time. Otherwise, I might forget them. I: So you think that is the positive side of bipolar disorder? P: Yes. Reading an account's report was beyond my ability, but I could do it when I was in that state. I then advised the person regarding the account details. He also agreed with me. So, you would have that kind of idea. I: Any further things you would like to say or add? P: No. I: Thanks for your participation in this study.	WP27: Taken medication, which resulted in mania (O2). WP28: Self-awareness of being unwell and informing the doctor about it (O1). WP29: Positive mania experience is perceived as improved cognitive function (O2). WP39: Writing down ideas developed during mania (O1). WP30: Uncommon experience of being able to read an account's report during an illness state (O2). (Total data fragments: 40)

Interview transcript 12	**Initial codes**

Interviewer (I): Could you please tell me three ways you would use to manage life-related stress?	
Participant (P): Before this, I used sleep to help me. I would feel better after I woke up. I am not fully okay, but I feel relieved.	SA1: Sleeping to help feel better (O1).
I: What about the second method?	
P: Eating. I would go out for good meals, and when I return, I feel ok.	SA2: Eating good food (O1).
I: Third method?	
P: Watch movies.	SA3: Watching movies (O1).
I: Could you describe your first method, which is sleep, in more detail? How often do you use it?	
P: Before this, I used to practice it very often, and I would sleep to help me feel better. But I slept in the daytime and would have difficulty sleeping at night.	SA4: Sleeping in the daytime disturbs sleeping at night (O2).
I: How was sleep helping you?	
P: I could forget my problems for a while. Although I knew things were not okay, it helped for a moment.	SA5: Sleep helps to forget the problems for a while (O2).
I: How long did you sleep each time?	
P: Minimum three to four hours.	
I: Do you work?	
P: Yes.	
I: What do you work as?	
P: As a nurse.	
I: Whereabout?	
P: USM.	
I: You mentioned you slept in the daytime. How was your work then?	
P: Prior to this, I did not work. When I first married, I was a housewife until I was divorced. I started working in 2021. I was not working from 2011 until 2020. I started shiftwork as a nurse at the confinement centre. I usually did the night shift because I needed to sleep in the daytime.	SA6: Doing night shift to allow daytime sleep (O1).
I: How many hours do you work currently?	
P: I work office hours from eight to five if I do not need to be on standby. If I need to do that, it will extend until the night.	
I: Do you think this method applies to your current situation?	
P: I have adjusted many things. Prior to this, I depended on sleeping pills. I have stopped them and adjusted myself so I can sleep at night and not affect my work in the daytime.	SA7: Doing some adjustments to allow sleep at night without using sleeping pills (O1).

I: What do you do now when you are stressed and can't use the method of sleep in the daytime?	
P: There is a lot to do at work, so I don't feel it. I feel it when I am on holiday or not working, such as on weekends.	SA8: Work helps against feeling depressed (O2).
I: Could you please elaborate on how you felt when you were not working?	
P: I would feel depressed. I would sleep it off and again take sleeping pills at night.	SA9: Sleeping when feeling depressed and take sleeping pills again at night to sleep (O1).
I: Why do you feel depressed when you are not working?	
P: I am staying alone. I only talk to others when I am at work. I have no one to speak to when I am at home. I feel lonely.	SA10: Feeling lonely as staying alone and no one to speak to at home (O2).
I: You mentioned about staying alone. Where is your family?	
P: In Kedah.	
I: Do you have children?	
P: No children.	
I: How often do you go back to Kedah?	
P: It depends. Sometimes, I need to be on standby on the weekends. If no further work is needed, I will go back almost every week.	SA11: Returning to hometown to be with family almost every week (O1/O2).
I: Who do you think support your mental health now?	
P: My siblings. But everyone has their own life to live. If I am not okay, I will see them and tell them. I will ask if I can stay with them until I feel okay, and then I will go home.	SA12: Seeing and informing siblings if unwell (O1/O2). SA49: Asking to stay with sibling until she's ok (O1/O2).
I: How is your relationship with your siblings?	
P: We are okay except for my eldest sister. I haven't seen her in a long time.	
I: How do you think that staying with your siblings helps you?	
P: It helps because I have company to talk to.	SA13: Having someone to talk to when staying with siblings (O2).
I: Who else besides your siblings helps in your life?	
P: My friends at work.	SA50: Friends at work being helpful (O2).
I: Do you only meet them at the workplace, or do you also meet them outside the workplace?	
P: Before this, I only limit our interaction at the workplace, but for the past three to four months, I have started joining them in activities like hiking and playing badminton.	SA51: Limiting interaction with colleagues at workplace initially (O1). SA14: Joining colleagues in outdoor physical exercises (O1/O2).

I: Are they aware of your mental health issues? P: Yes, they know. I: Can you tell me when you told them and how you felt about sharing it with them?	
P: I felt okay because before I joined the workforce, I declared my medical issues and informed them about my psychiatric treatment. So, they understood.	SA15: Declaring and disclosing mental health condition at the workplace, and feeling okay about that (O1).
I: How was your supervisor and other colleagues taking it?	
P: They knew and were okay.	SA16: Work colleagues were aware and okay with her mental health issues (O2).
I: How is your work arrangement compared to others? P: Same with others. I: If you have work-related problems, who do you seek help from?	
P: I would seek my matron.	SA17: Seeking matron's help when having work-related problems (O1).
I: What else in the workplace do you find helpful for you?	
P: There is no discrimination in the workplace. They don't judge your capabilities. They give me tasks and trust me to handle programmes or projects, so I feel I am given opportunities to do something significant at work.	SA18: No workplace discrimination (O2). SA19: Given equal work opportunities to perform (O2).
I: Can you handle the tasks you have been given so far? P: Yes. The work they assigned me to do at the university level has reached the state level, so I feel okay. I: Is finding help a challenge for you at the workplace? P: No problem. I: You mentioned about your friends at the workplace, but what about your other friends?	
P: No. I don't have any other friends. My life consists of my family, friends from work, and the workplace.	SA52: No other friends outside work (O2).
I: Any reason why you don't have other friends?	
P: I want to limit my social circle. I am content with what I have now.	SA20: Limiting social circle (O1).
I: Can you describe this in more detail?	
P: I feel that sometimes those who don't know us tend to judge us. Three years ago, I had a friend on Facebook who wanted to know me and made a statement. Even though it was a small issue, it had a	SA21: Being judged by someone not close or familiar (O2).

significant negative impact until I was in no mood to work and kept crying. The person commented on my food and my weight. At that time, I was very depressed, and the doctor advised me to be admitted to the psychiatric ward, but I refused. I was depressed for two weeks. The person didn't know me but judged me. I prefer to interact with someone whom I really know. I: Your past unpleasant experience has contributed to your friendship preferences. P: Yes. I have been married twice and divorced twice, so I don't want to talk to people who gossip about me. I feel insecure, and when people judge me, I feel more unhappy. If I don't mix with people like that, my problems stay with me only. I: May I know the reason behind your divorce? P: My ex-husband had someone else. That person was my friend, and they had an illegitimate child together. I: Did the same incident happen for your other divorce? P: Yes. The other husband did the same thing. I: You mentioned your negative experiences with a friend on Facebook earlier. Do you frequently use social media? P: Yes. I: Can you describe it more? P: I love to write and share. I use Facebook to express myself, but I do it discreetly. If I have a mental breakdown, I will temporarily deactivate my Facebook account because I worry that I may share more than I should, maybe something emotionally driven. If there are things I can share, I will share, but if I am sad, angry, or upset, I will avoid it so as not to embarrass myself. I: You are still actively using Facebook? P: Yes, the account is still active. I will avoid it when I am not feeling well. I: You seem to be aware of your emotional state and try to limit your exposure to it. P: Yes. I: But how sensitive are you towards your emotional change? P: When I feel that I am not okay, I will find my friend to accompany me to talk, find my	SA53: Refusing doctor's advice for admission (O1/O2). SA22: Interacting with someone familiar (O1). SA23: Not talking to people who gossips about her (O1). SA54: Not mixing with people to avoid being judged by others (O1). SA24: Self-expression through writing and sharing discreetly in Facebook (O1). SA25: Temporary deactivating Facebook account during a mental breakdown to avoid sharing emotionally driven information and prevent self-embarrassment (O1). SA26: Avoiding Facebook when not feeling well (O1). SA27: Finding friends or siblings to talk, and travelling to hometown (O1)

siblings, go back to my hometown, or go on a holiday. I: When you were emotionally unwell, you mentioned that the doctor once suggested that you be admitted. What do you think about the treatment you have received up till now?	SA28: Go for a holiday when not feeling well (O1).
P: At the moment, I am depending on medication. I think the major issue happens when I am not able to sleep. When that happens, I cannot commit at work, become easily angry, and be easily triggered.	SA29: Poor sleep affects mood and work (O2).
Therefore, I ask for sleeping pills so that I can have enough sleep and my mood will be good. I: Other than medication, what do you think about the treatment you are receiving, such as your communication with health professionals?	SA55: Asking for sleeping pills to improve sleep and mood (O1).
P: Sometimes I think medication alone is enough, but when I come here, there is something…like my diagnosis changes from major depressive disorder with psychosis to borderline personality disorder to bipolar mood disorder. So, do I really get the correct treatment?	SA30: Unsure if the treatment received is correct due to changing diagnosis (O2).
But I try…I think I can identify and focus on dealing with my problems, like sleep.	SA31: Trying to identify and dealing with own problems (O2).
Prior to this, I depended fully on medication. I believed that when I took medication, I could sleep, and everything would be okay. But there was a time when I decided not to be dependent on medication.	SA56: Stopping sleeping pills as not to be dependent on it (O1).
Since February 2024, I have stopped taking sleeping pills for two months while continuing other medications. One of the medications was for weight management, and it could help me sleep. I was okay until April 2024, when they diagnosed me with bipolar mood disorder. The doctor advised me to stop the medicine as he said it was not suitable for me to take it.	SA57: Listening doctor's advice to stop weight reduction medicine (O1).
So, I have to retake zolpidem because I am afraid that when my sleep is disturbed, the same issue will repeat itself.	SA58: Retaking sleeping pills as worried sleep problem might trigger mood disturbance again (O1).
But at the same time, I try to change or adjust my routine. Since May, I have started running, hiking, and playing badminton with my friends. So, when I engage in those physical activities, I will become tired and able to sleep at night.	SA32: Trying changing and adjusting routine by engaging with outdoor physical exercises to help in sleep (O1).

I: Regarding your question about your diagnosis, did you discuss this with your doctor?	
P: I don't think I can talk to all the doctors because some want to speak with you and understand your problem and what you have been through, but some ask if I am okay and proceed to give me a prescription and appointment. So, I feel that if the doctor is not interested in exploring my issues further, I will not tell them. But if I see a doctor who asks me more about my condition, I am okay to tell them more. I feel some are okay, and some are not okay.	SA32: Different levels of interest from the doctors to explore personal problems (O2). SA33: Not sharing concerns with the doctor if they are not interested in exploring the issues further (O1/O2).
I: If you have any questions, would you take the initiative to ask the doctor?	
P: No, because when we meet someone, we can either be comfortable with them or not. If we see that they are not interested in further conversations, maybe they need to see many patients, or sometimes we have already waited downstairs for four hours. I am also fed up and not keen to talk more.	SA34: Doctor's interest in conversation, long waiting hours at the clinic affects mood and interest to talk with the doctor (O2).
I: Do things like waiting time and all have an effect on you?	
P: Sometimes, it affects my mood. We wait two hours for registration and two hours to see a doctor, but we only get to see the doctor for less than fifteen minutes. So, I feel it is a waste of time.	SA35: Seeing a doctor for less than 15 minutes after hours of waiting (O2).
I: You mentioned earlier about outdoor activities, like sports. How often do you do them?	
P: Three times a week.	SA36: Regular outdoor physical activities (O1).
I: How do you think these activities help?	
P: I will feel tired and sleep better at night without the need to take sleeping pills. Secondly, it makes me happy.	SA37: Outdoor physical activities improve mood and helps sleep better (O2).
I: Besides sports, what other activities would you do?	
P: No. That's all.	
I: Could you describe the other method you mentioned, which is eating?	
P: I like to eat and go food hunting, but since May 2023, after I consulted a family physician for weight management and started on medication, I have reduced my diet intake. This has also reduced my appetite. Sometimes, once or twice a month, I choose a place with good food to eat.	SA38: Reducing diet intake despite liking to eat for weight management (O1). SA39: Still regularly eating out at places with good food (O1).

I: How does eating help you? P: I feel happy when I choose a good place to eat. I usually go with my younger sibling. When we eat and talk, I feel happy.	SA40: Feeling happy when eating out with sibling at a good place (O2).
I: Since you are looking after your weight, does this method conflict with your approach? P: No. Previously, I was in conflict because I had problems with binge eating. I still ate despite feeling full. So, I consulted the family physician because when my weight increased, I would be emotional. So, I sought their help with body weight management. When I was able to control my diet intake, I felt okay. Now, I do it to feel better.	SA41: Seeking help from physician for weight management (O1). SA42: Controlling diet intake to feel better (O1).
I: Why did you binge eat? P: I didn't know, but I always ate. I always felt hungry despite being already full. Maybe I just wanted to be happy. I don't know, but I kept eating nonstop.	SA43: Used to binge-eat to feel happy (O1).
I: When did this binge-eating stop? P: Since this February. I: The third method you mentioned was watching movies. How does that help you? P: I usually do that during the weekend because I am tired on weekdays, so I don't go out. Sometimes, I feel the need to spend my time outside so that I don't have too much time at home. So I watch a movie for about two hours and go home to help with my mood. There's something I could do that day.	SA44: Spending time outside to reduce time at home (O1). SA45: Watching movies at the cinema to feel better (O1).
I: Who do you go with? P: Sometimes by myself. I: How often do you do it? P: Usually, once a month. I: What about some other days? P: Some weekends, I need to be on standby. I will be on campus for the whole day or until the night. If I am free on weekends, maybe just once or twice a month, I will return to my hometown and spend time with my parents.	SA46: Regular movie-watching in the cinema (O1). SA47: Spending time with parents in hometown (O1).
I: If you are at home and not going anywhere? P: I will tidy my house and do other things to fill my time. I: So you will make yourself busy with housework. Do you have other ways that	SA48: Tidying house and doing other things to fill time (O1).

you have used to manage your life-related stress? P: No. I: Do you have anything else to add? P: No. I: Thank you for your participation in this study.	(Total data fragments: 58)

Interview transcript 13	**Initial codes**
Interviewer (I): Could you please tell me the three ways you manage your life-related stress?	
Participant (P): Through exercise.	SP1: Using exercise to manage stress (O1).
I: Second method?	
P: I find other people to talk to when I have life issues. It's almost like sharing my experiences with others.	SP2: Finding other people to talk (O1).
I: Third method?	
P: Be consistent with medication intake. I believe that medication can help me.	SP3: Being consistent with medication intake (O1).
I: Let's discuss the first method, exercise. Can you describe it in more detail, such as what type of exercise you do, when you do it, and how it helps you?	
P: I like aerobics dance a lot because it uses music, and I enjoy myself when I do it. In addition, I can join my friends. Being with my friends makes me happy. We all like aerobics dance.	SP50: Enjoys doing aerobics with music (O1). SP4: Joining friends to do aerobic dance (O1).
I: Where do you do the aerobics dance?	
P: I used to do it in a park with a group of people. But I have not done it for a long time now due to my leg pain, so I am sad. When I was well, I would dance for one hour, and after that, I would chat with my friends.	SP5: Doing aerobic exercise in a public park (O2). SP6: Not being able to do the aerobic exercise for a long time due to leg pain (O2). SP7: Doing aerobic dance and then chatting with friends (O1/O2).
I: How long have you not been doing that?	
P: Since MCO. I have started going to the park again but do not join the aerobics dance. I only do some light exercises with a group of elderly people. The exercise is not intense, unlike what I used to do. At least I can leave home and go to the park for an hour to be with my friends for some light exercises. I just did some exercises with my hands but not my feet cause my feet are in pain. I feel exercise is very important to me.	SP8: Being with friends for light exercises at the park (O1/O2). SP51: Awareness of the importance of exercise for her (O1).

I: How often do you do the physical exercise now? P: Twice weekly, Monday and Thursday. The activity only runs on these days, from five to six pm. There was also an activity today. I: You would often join them twice a week? P: Yes. I: So, is the aerobics dance exercise no longer there after the MCO? P: It has resumed. It takes place every morning from seven to eight am. The exercise is more intense and is for younger people, such as Zumba. It uses leg movement a lot. I: So, you can't join. P: Yes, that is one reason. The other reason is that I find it difficult to wake up early these days. I need at least eight hours of sleep to feel okay the whole day, so I can't join the activity. I really liked it because it helped me relax. I: I see. Now you are joining the other activity which is less strenuous exercise. P: Yes. Less intense activity for older people. I: How do you think this activity you are joining now is helping you? P: At least it's better to be at home doing nothing. But I can't join if it rains. I will do some exercises at home with YouTube on. I don't like other forms of exercise. I like music. When my mood is not good, I will listen to the music. I am a Christian. I like listening to worship songs. I feel that the Christian songs help me to stabilise my mood. When my mood is low, I listen to Christian songs. When I think negatively, I use Christian songs to encourage myself. Because I am a Christian, I use God's Word to encourage myself. So, I feel okay, and it has helped me. I: How is your relationship with the people you exercise with? Are they ordinary friends or good friends? P: They are just ordinary friends. We just meet to exercise. I have very few close friends because, for about twenty years now, I have served mainly elderly people in the church. So, I seldom interact with my	SP9: Engaging in regular physical exercise (O1). SP10: Can't join aerobic activity because finding it difficult to wake up early (O2). SP11: Aerobic exercise helps to relax (O2). SP12: Doing simple exercise outside is better than staying at home not doing anything (O1/O2). SP13: Doing exercise at home with YouTube when can't do it outside (O1/O2). SP14: Listening to Christian worship songs when mood is low with pessimistic thinking mood to encourage self (O1/O2). SP15: Using God's Word to encourage self (O1/O2). SP16: Very few close friends due to limited interactions with younger counterparts in church (O2/O3).

younger counterparts. We just nodded in acknowledgement. I: You mentioned earlier about talking to others about your life issues. Who are those? P: My church pastor and my husband. I: So these people are close to you and trusted by you. P: Yes. I: How do they help you? P: When I was not well, my husband took very good care of me. When I suffered from an illness relapse, he accompanied me. He gave me a sense of security. He didn't leave me just because I was unwell. He accepted me and took good care of me. I: Is he a Christian? P: Yes. He is a Christian. I: What other things do you think he has helped you? P: He always makes sure I take my medication. Because I tend to forgo my medication when I feel well, and every time I relapse, it requires a very long time to recover. He will be there when I take my medication. Until now, he has prepared the medication I take daily. All these years, he has made sure that I take my medication every day. I am grateful for him. I: How does your pastor help you? P: My pastor will listen to my problems and pray for me. He has given me much emotional support. In the past, I used to work in the church. Whenever I was unwell, I only needed to tell him, and he would ask me to work only half a day and then allow me to rest. He understood my condition. If I were to work at other places, I might not have gotten similar benefits as you are expected to work according to your pay. In addition, I couldn't bear much stress, and the pastor understood that too. I stopped working at the church because I could not bear the stress, and I could only do some volunteer work. However, the church has been very supportive and gives me monthly allowances. My husband also works in the church as a van driver. He also has been working there for many years, but recently, he has had a problem ambulating, so he	SP17: Sharing life issues with church pastor and husband (O1/O2). SP18: Husband takes good care and provides constant accompaniment during illness (O1). SP19: Husband making sure about medication intake (O1). SP20: Tendency to not taking medication when well (O2). SP21: Husband's preparing and making sure about medication intake (O2). SP22: Pastor listens, understands, prays, and provides emotional support (O2). SP52: Telling pastor when she's unwell (O1/O2). SP55: Limited ability to deal with stress (O2). SP23: Stopping regular work and starting volunteer work as not able to withstand stress (O1/O2). SP24: Church has been supportive despite not working there and provides monthly allowances to her and husband (O2).

can't drive the van anymore. The church has been very kind and supportive and still gives us monthly allowances. I feel that involving the church in our lives really helps me.	SP25: Involvement of church in her life is helping her (O2).
I: What about your relationship with other brothers and sisters in Christ? P: I mostly interact with the elderly, and I seldom have the chance to meet with the younger ones. We meet at the Sunday service, and I have to serve the elderly there. So, I listen to the elderly more than they listen to mine. When I am well, my job is to care for the elderly and arrange some programmes for them. I have been doing this all these years. I don't have a small group in church. I usually serve people rather than others serving me.	SP26: Not having a small group in church and serving others rather than being served in church (O2/O3).
I: How does volunteering work help you in particular? Does this work affect your emotions? P: Not really. I feel that I am still useful. My husband, who is now in a wheelchair, has depression, but I encourage him. He is able to drive me to the hospital. I ask him to bring me to visit the elderly people in the nursing homes. This work is meaningful to me. I feel worthy of living. Also, no one is giving me stress because I don't get paid. They only give me allowances. Previously, my salary was a few thousand ringgit, so they have work expectations. I could do many things back then because I was well. I could plan many activities for them. But now I have stopped working, and no one gives me stress. I only do it based on my condition, time, and preferences. No one controls me. So, I am very happy. At least, I feel I am still useful.	SP27: Doing volunteering work makes her feeling useful (O1). SP53: Encouraging husband who has depression (O1/O2). SP28: Husband helps to drive her to the hospital and also to visit the elderly in the nursing homes (O2). SP29: Visiting the elderly in nursing homes is meaningful and makes her feel worthy (O1). SP54: No one gives her stress (O2). SP30: Only doing what she is capable of doing, and feeling useful (O1).
I: You are living with your husband, correct? P: Yes. I don't have children. Only myself and my husband. No children or other family members are around. I: What about your siblings? P: They are in other states. We are not close. I came to see the doctor today because I didn't feel good. I have been stable for the past twenty years. But recently, I think that I have anxiety and depression. My	SP56: Seeking treatment when not feeling good (O1). SP31: Being self-aware and coming for earlier treatment due to feeling unwell (O1).

appointment should be next month, but I come earlier to get help. I know my own condition, so I came earlier to get the doctor's help. Maybe in the area of medication adjustment. I don't want to wait until full relapse. It will be too late if that happens. My husband is no longer as capable as in the past in looking after me. Therefore, I must look after myself so that I can care for him. If I am not well, what about him? If he is not well, then what about me? So, we look after each other. He is still waiting for me downstairs. He is a very patient person. He really takes care of me. So I came to see the doctor today, and the doctor increased my medication a bit. Hopefully, that can help me. I: So, you don't feel too good recently. Can you differentiate between when you are well and when you are unwell? P: Yes, I can. I: You came today to get earlier help to improve your condition. How long does it take for you to realise the changes in you? P: It only takes a short period for me to be unwell, but it takes me longer to recover each time I am unwell. As I didn't feel good recently, I quickly came to get help. Actually, I was in a conflict for some time before coming here because I was already comfortable with the current medications all these years. I was worried that the doctor would change my medication and that I would have to adapt to the new medication again. I have been taking these medications for so many years without any changes made, and you can check my record. So, it took me a lot of courage to come here to see a doctor today. I also hoped to see a Chinese doctor so that I could express myself better. If an Indian or a Malay doctor attended me, my Malay and English were not good. I could only tell them I had anxiety and was very difficult to communicate. I am very happy that I could see a Chinese doctor today, and she helped me a lot. I: Besides seeing a doctor and being aware of your own condition, what other ways would you use to help yourself?	SP32: Looking after self to be well and care for her husband (O1). SP33: Mutual care between husband and wife (O2). SP34: Worrying that the doctor may change medication and has to adapt to new medication again when receiving treatment (O2). SP57: Hoping to see a Chinese doctor for better communication (O3). SP35: Difficulty communicating with an Indian or a Malay doctor due to language barrier (O2).

P: I force myself. Sometimes I manage to do so, but at times I can't. For example, I know that exercise is helpful for me, and every time I exercise, I feel relaxed and can sleep better. So, I force myself to exercise. Sometimes, I force myself to exercise about two days a week, but I can't on other days because I don't feel like doing it when I am depressed. When my mood is bad, I don't feel like doing anything but just lying there. I know that not doing anything will not help me. So, I force myself to get up to do some exercise. However, there are times I can't do it. When that happens, I feel guilty, but I will tell myself it's okay. At least I can do it at least twice a week. It's better than nothing. I console myself. I also go out for shopping with my husband. He likes shopping, and I will accompany him. It helps him and me relax. We will then have lunch before returning home. I feel it is helpful for me.	SP36: Forcing self to exercise on days when motivation was low (O1). SP37: Consoling self when being disappointed with self (O1). SP38: Going out shopping with husband helps to relax (O1/O2).
I: How do you find the treatment you have received so far? P: Today is the best. I have been treated for so long, and today, I saw the best doctor. The whole environment was different. Today was the first time I entered the room to talk privately with the doctor. Over there, several doctors cramped in a room together with their patients. It was very noisy sometimes, and it was difficult to communicate properly. So, the treatment was affected by the environment.	SP39: Talking privately with a doctor with a good treatment environment (O2/O3). SP40: Difficulty communicating with the doctor due to several doctors and patients in a room (O2).
I: What do you think about your current medication besides the environment? Are there any side effects? P: I don't feel any side effects. Now that the doctor wanted to increase the dosage of the medication. I asked the doctor not to increase the dosage too much but to do so slowly to allow my body to get used to it. The doctor was okay with that.	SP41: Requesting the doctor to only increase the medication slowly so as to allow time to get used to it (O1).
I: Talking about the environment, how was your living environment? P: I live on the 20th floor. It isn't good for me. People with depression sometimes can have suicidal thoughts. I had that when I was unwell, but I no longer have it. I can still remember my husband locked me in the	SP42: Living in high rise building is not good due to suicidal thoughts when unwell (O2).

house when he was off to work as he was afraid of me jumping off the building. At that time, I refused to be admitted. He had to go to work, and no one at home to look after me. So, he had to lock me in the house. After that incident, I agreed to be admitted for subsequent relapses. I had many times of ECT. Over time, I gradually understood that I should ask for help when unwell. I learned about this later. In the past, I was not adherent to medication.	SP43: Learning about asking for help when unwell (O1).
I: Any reason why you were not adherent to medication?	SP58: Not adherent to medication as feeling well then (O2).
P: I felt I was well. I had once attempted suicide, whereby I overdosed myself with an antidepressant. I did not take the medication my husband served me, but I collected them over time and took them all at once in a day. That was the first time I was sent to the ward and seen a psychiatrist. That was how I started seeing a psychiatrist.	
I: Was there a reason every time you had a relapse?	SP59: Life stressors as reasons of illness relapse (O2).
P: Yes. There were stresses in life.	
I: Did you have any stress recently?	SP44: Husband's mood condition affects her mood (O2).
P: Yes. My husband has difficulty walking due to leg weakness, so he has to sit in a wheelchair when he's outside. I have to be with him all the time, and he has depression. His mood has affected my mood. He is unlike me. I like to talk things out, but he keeps everything to himself. He has no close friends. He only has me in his life. I am better at speaking out when I have issues. He is depressed because he cannot accept the fact that he has leg weakness and is not as independent as he used to be. He also can't work due to a spinal cord problem. He also has other medical problems, such as prostate enlargement. His medical issues also affected his mental health. He cannot sleep well, as he needs to wake up regularly to urinate; sometimes, he can't stop urinating, and at other times, he can't pass urine. He's not energetic in the morning. He has many bodily complaints at home. He's depressed, and his mood has affected mine. I think this explains it because I am not working and have no work-related stress. There are only both of	SP45: Speaking out when there are issues (O1). SP46: Husband's condition causes stress (O2).

us at home. So, I think it is him causing me stress. I think my condition will worsen if this is ongoing, so I ask him to let me go out twice a week, and each time for two hours. I need exercise, my friends, and my own space. Initially, he disagreed because he worried he might fall at home if I was not around. But I told him he had to help me so I could help him. If anything happens to me, who will take care of him? If anything happens to him, who will take care of me? I persuaded him to let me out on Monday and Thursday for two hours. I experienced natural environments at the park, exercised, and talked to my friends. When I reached home, I felt relaxed and could sleep better. I: What about your neighbours? P: We seldom interact. The people living on the same floor are many single working adults who work during the day and return at night. If anything bad happens, it's difficult to get them to help. The other day, both the lifts were faulty. We could not get home, and we waited downstairs. Now, there's already such an issue. I: Do you find that leaving your house to seek treatment or buy daily necessities is a problem for you now? P: Yes. It's uphill from my house to the bus stand. My doctor said that my legs are too weak to hike now. I can only walk on flat surfaces. Whenever I need to go out, my husband will drive me. He can still do that, but his legs are weak. It's a miracle that he can still drive. I: Do you find it difficult to come here for treatment? P: Not difficult. I: The third method you mentioned was medication intake, which we discussed earlier. What other methods would you use besides exercising, listening to Christian songs, and talking to others? P: Only those. I: Anything else you want to add? P: I hope that I can take care of myself, and then I can take care of my husband. I: Thank you for your participation in this study.	SP60: Asking the husband to let her leave his side to go out to prevent worsening of her condition (O1/O2). SP47: Being in nature, doing physical exercise, and meeting with friends helps with relaxation and improves sleep (O2). SP48: Limited interaction with neighbours and difficulty asking for help if needed (O2). SP49: Difficulty walking from the house to the bus station due to weak legs (O2). SP61: Needing husband to drive her around whenever she goes out (O2). SP62: Not difficult coming for treatment (O2). SP63: Hoping to be able to care for self and husband (O3). (Total data fragments: 63)

Interview transcript 14	Initial codes
Interviewer (I): Could you tell me three ways you would use to deal with stress in life?	
Participant (P): I pray and perform my religious duties. If I am stressed or depressed, I will take a long, deep breath, calm myself, and think about God. I will also busy myself with activities.	MA1: Praying and performing religious duties, and thinking about God (O1/O2). MA2: Taking deep breaths to self-calm (O1). MA3: Busying self with activities (O1).
I: Is that your second method; make yourself busy with activities?	
P: Yes. If I have any problems that make me stressed, I will leave home and meet with friends or do some work.	MA4: Meeting friends or doing some work (O1/O2).
I: What is the third method?	
P: I do exercises. When I exercise, it helps me a lot.	MA5: Doing exercises (O1)
I: Back to the first method you mentioned about religion, could you explain how the things you practice related to your religion have helped you?	
P: In Islam, we see that all the good and difficult things that happen to us come from God. God decides them all. So, I will observe my prayer routine. In Islam, we are commanded to pray five times. When I have issues, I will say God's name. When I do that, I feel the burden in me being relieved little by little. I do a lot of saying out God's name.	MA6: Observing prayer routine (O1). MA7: Saying out God's name to relieve burden (O1).
I: You also mentioned taking in deep breaths when you are stressed. Can you elaborate on that?	
P: A doctor from this hospital taught me that when I am anxious, I can take a deep breath, hold it for seven seconds, and then release it. I repeat this three times, and I get less anxious.	MA8: Being taught by a doctor to take deep breaths when anxious (O2).
I: As you said about prayers, do you do them at home or a mosque?	
P: I go to the mosque. I feel comfortable going to the mosque. I feel calmer because the environment is good there.	MA9: Going to the mosque and feeling calmer there (O2).
I: Can you describe the environment there?	
P: There are religious classes taught by religious teachers, ustaz. Also, there is a positive aura when there is a group praying. When the head of the prayer group, the	

imam, reads out (religious texts), I feel calmer and more able to pray. I don't feel too comfortable at home because of the environment. At the mosque, I feel happier when we pray together. I: Do you know anyone in particular at the mosque? P: Yes. I know most of them. I: How do they help you in terms of stress management?	MA48: Feeling calmer at mosque than at home, which helps in his praying (O2).
P: If I have any problems, such as stress, I will share them with the religious teacher. He will give me suggestions on what to do. For a person with monetary debt, for example, there's a prayer to settle their debt. So when I practice the prayer, I feel more confident, and things go smoothly for me. If I feel anxious or stressed, the teacher will read al-Quran into the water, and he will give it to me to drink and bathe. I think this is extremely helpful. I: How does that help?	MA10: Sharing problems with religious teacher (O1/O2). MA11: Religious teacher giving advice on what to do (O2). MA12: Practicing the prayers and feeling confident (O1). MA13: Drinking and bathing into the religious water (O2).
P: When I can't sleep at night due to anxiety, and I drink that water, I will feel calmer a bit. If I feel excessively stressed, I will go to the mosque straight away. I: How far is your house from the mosque? P: About 200 metres. I: Is it far? P: No. It's nearby. I: Do you find it difficult to go there? P: No difficulty going to the mosque. I: Do you walk or ride a bike… P: By bike. I: Besides the imam or ustaz, who else from the mosque whom you think has helped you?	MA14: Drinking religious water when can't sleep at night due to anxiety (O1). MA15: Going to the mosque immediately if excessively stressed (O1/O2). MA16: No difficulty going to the mosque as it is nearby (O2).
P: My father, who also frequently goes to the mosque, advises me frequently. For example, he will ask me not to play with my phone if I sleep late at night. One more thing: When I am busy with social media, I have difficulty sleeping at night, I feel heavy-headed, and I experience stress. I: So your father will advise you to reduce the time spent on those. P: Yes, and he's also very diligent in going to the mosque. He never missed praying five times a day. He will advise me on ways to reduce my stress.	MA17: Father giving frequent advice (O2). MA18: Having difficulty sleeping and experiencing stress when spending too much time on social media (O2). MA19: Father's giving advice on stress reduction (O2).

I: What other aspects do you think your father has helped you? P: My father will buy good food for the family, like fruits and health supplements. Sometimes, I will pay him, and sometimes, he will pay himself. Every day, he prepares fruits at home. I: So you are living with your father… P: I am living with my father, mother, and siblings. I: Are you married? P: No. I: About family, who else in the family has helped you or otherwise? P: My siblings don't care much about me. They don't understand my condition. So, they are not that supportive of me. Because of that, I seldom stay at home. I: Who in the family you are closest to? P: I am closest to my parents. I: Do you share your problems with them? P: Yes. I: How do they help? P: I take the medication being prescribed to me, but my father will also buy me supplements, including essential oil, because I often have headaches. He will also give advice. I: About medication, how do you find the medicine you are currently taking? P: I think the medication was helpful in the first five years of taking them, but now I think they are not helpful. I: Can you elaborate? P: For example, I had no problem with sleeping with the medicine venlafaxine in the past, but for the past seven to eight years, I have been having difficulty sleeping at night. Also, I did not have any disturbed thoughts in the past when taking this medicine, and I don't know why I have them now despite taking a higher dose. I: Besides these, what other aspects do you feel the medication is not helping? P: I have researched the Internet and read from magazines. I have also heard from others who took Effexor that when they stopped the medicine for two days, they experienced withdrawal symptoms, like	MA20: Father's buying good food for the family (O2). MA21: Limited support from siblings (O2). MA22: Seldom staying at home because of limited siblings' support. MA23: Being close to parents (O2). MA49: Taking medication as prescribed (O1). MA24: Father's buying health supplements and giving him advice (O2). MA25: Medication losing its efficacy (O2). MA26: Doing own research, reading, and understanding from others' about own medication (O1/O2).

feeling nervous, sweating, and difficulty waking up from sleep. I: Did you experience the same thing? P: Yes. I: So you have stopped using Effexor before? P: Previously, I stopped Effexor for one month together with Epilim. Within the first month, I felt okay. After that, I could not proceed with my daily activities. I: What motivated you to stop medication at that time?	
P: I stopped because of their side effects. I felt too sedated. I thought at that time that I was not ill and did not need medication. I did not want to become sick and dependent on medication. Also, some people who worked at a drug agency told me that long-term intake of medication can harm our health. Because of that, I stopped taking medication.	MA27: Stopping medication due to side effects, did not think of being illness, and not want to be dependent on medication (O2). MA28: Stopping medication upon advice from others regarding the harmful effects of medication to health (O2).
I: Have you informed your doctor about the medication's side effects?	
P: Yes. When I told the doctor about it, the doctor changed Epilim to some other medicine like lamotrigine, but the condition did not improve. So the doctor just maintained with Epilim. When I was on lamotrigine, I found it difficult to do my activities of daily living. I: What do you think about the treatment you have received so far?	MA29: Informing the doctor about side effects of the medication (O1/O2).
P: When I see the doctor, they ask about my condition. Sometimes, I don't tell them I have stress because they will continue the medication regardless. If I have severe stress and I can't sleep at night, only then will I tell the doctor. The doctor will ask about the medication dosage that I take, and they will add the dosage to the medication. I: Is there any specific reason you did not tell the doctor when stressed?	MA50: Not telling doctor about stress as they tend to continue same treatment (O1/O2). MA30: Only tell the doctor if severe stress and can't sleep at night (O1).
P: I did not tell the doctor because I felt that the doctor did not give any tips to help relieve my stress. They only focussed on the medication. Only a few doctors informed me about the breathing exercises. For the past 15 years, no doctor has ever informed me. Only recently did they give some tips.	MA31: Not telling the doctor as they only focus on medication and do not provide tips to deal with stress (O2).

I: How do you get to this hospital? Do you find it difficult to come here from your home? P: Not difficult. But if I am unwell, I find it difficult to come here. I: Do you come here by yourself most of the time? P: Yes. I: You mentioned earlier about using the method of making yourself busy with activities. Can you talk about that? P: I want to say that worry and anxiety are much reduced now compared to two years ago, even though I am taking a lower medication dosage than before. What did you ask? I: The second method you mentioned is making yourself busy to help yourself. What did you mean by making yourself busy? P: I go to work by delivering food, or I will busy myself with business. I do some perfume business. I will go out and do business in the mosque area. When I work, my thoughts are better. I can work like normal people. I: So you perceive work as something that can help you. P: Yes. I: What is your main job? P: Doing Grab food. I: What about selling perfume? P: I do it part-time. I: What do you think about your job now? P: It has helped me a lot by allowing me to do normal living activities, maintain health, and earn some money for living. I can also give some money to my family. I: Are your earnings sufficient to meet your daily needs? P: My earnings at the moment are sufficient. I: You also mentioned about going out with friends. What are their roles in helping your life? P: I go to the mosque to attend religious classes. I meet my friends there. I don't have many friends there, and I will talk to them about what was taught in the class by the religious teacher. I: What about friends outside the mosque?	MA32: Not difficult going to the hospital (O2). MA33: Working helps in thinking (O2). MA34: Current work allows living normally, maintaining health, earning money, and providing for the family (O2). MA35: Talking to friends at mosque about religious lessons (O1/O2).

P: I don't have many friends outside the mosque. Only two or three people. I: Do you share your problems with your friends? P: No. I: The final method you shared was about exercising. Can you talk about that? P: I will jog at Bukit Dumbar, do aerobic exercises, and stretch. When I do these exercises in the morning in areas with many trees, I feel no stress. I: How often do you exercise? P: Three times a week. After this, I think I will go every day. I: Who do you exercise with? P: I do it alone. I: How do you get there from your house? P: If I have more free time, I will ride a motorbike to Bukit Dumbar. Otherwise, I will exercise on the jogging track below my apartment. I: So there is also a facility there. P: Yes. I: What about other facilities in your housing area? Are they okay? P: Not many facilities there. But there are many facilities near my housing area. If I stay at home, I feel stressed. I: Why is that? P: There are three blocks in our housing area. The neighbours always have negative attitudes, like teasing and criticism. They don't give positive encouragement. I: How is your relationship with your neighbours? P: I am okay with the neighbours in the same block, but they always ask about personal matters like marriage, which I don't like. I: You didn't feel comfortable when they asked personal questions. P: Yes. I: Is there anything else you would like to add? P: When I was first diagnosed with bipolar disorder, I did not understand it initially. However, I feel that my illness is more towards depression as I have never been hyperactive or become aggressive by destroying things. In bipolar, there is a	MA36: Not sharing personal problems with friends (O1). MA37: Doing physical exercises at a natural park and feeling no stress (O1/O2). MA38: Doing regular physical exercise (O1). MA39: Doing exercise at the housing area (O1/O2). MA51: Many facilities near housing area (O2). MA40: Feeling stressed if staying at home (O2). MA41: Neighbours with negative attitudes causing stress if staying at home (O2). MA42: Neighbours tend to ask about personal matters, which he doesn't like (O2). MA52: Not understanding bipolar disorder in the beginning of illness (O2).

manic episode. Maybe in my life, I have experienced those two or three times, and I feel that when a doctor has diagnosed us with bipolar disorder, they should provide counselling and tips on managing the illness rather than beginning with medication. I also feel that when my sleep is good, I will not be stressed on that day. When I don't have enough sleep, I will have that problem. I: Do you understand what bipolar disorder is now? P: Yes, I understand. Bipolar disorder is a mood swing illness; for two weeks, we feel good, and then for two weeks, we feel down. We don't feel good about doing our daily living activities. I: Right. What other things you would like to share? P: When we have this illness of depression or bipolar disorder, I feel that for us to overcome this, it is most important to have family support. When there is family support from our father and mother, including our siblings, and they understand our condition, it will be helpful. They understand and will not burden us with financial issues, and we will feel more motivated to overcome this illness and live life usually. I: Do you get the family support you just mentioned? P: I receive support from my father, but I don't receive it from my mother and siblings. I: In what aspect do you think they have not supported you? P: They don't communicate properly, like asking about my condition or having good social interaction. My mother and father are all right, but my siblings are not supportive. I: Do you have anything else you would like to say? P: No. I: Thanks a lot for participating in this study.	MA43: Doctors should provide counselling and management tips about bipolar disorder instead of using medication (O3). MA44: Being aware that sleep quality determines the occurrence of stress (O1). MA45: Important to have family support to overcome bipolar disorder (O3). MA46: Not receiving support siblings (O2/O3). MA47: No proper communication and interaction from siblings (O2/O3). (Total data fragments: 52)

Interview transcript 15	**Initial codes**

Interviewer (I): Could you please share three ways that you use to manage life-related stress?	
Participant (P): My first method is spending time with my cats. I hug them but will just pet them if they are in a bad mood. I will sometimes feed the stray cats and dogs. This is one of the things that make me happy.	SS1: Spending time with cats (O1). SS2: Feeding stray cats and dogs (O1).
I: What about your second method?	
P: My second method is watching horror movies. When I feel eerie, I think that my stress is released. My third method is watching cartoons like Doraemon. Things related to my childhood make me feel peaceful. I do not put any boundaries on what to watch at this age, so I can still enjoy watching cartoons. That makes me feel peaceful, and I still feel like being myself. So, my true self is never lost. I mean, there are two sides to me; one side is childish, and the other is mature.	SS3: Watching horror movies helps release stress (O1/O2). SS4: Watching cartoons related to childhood helps feeling peaceful (O1/O2). SS5: Not putting boundaries on what her watch made her peaceful and being herself (O1).
I: So, the first method you mentioned was playing with your pet, and the second was watching movies or cartoons. One more?	
P: The other one is that I like driving. Vacationing is costly. I like to travel, but not now because it requires a lot of money. So I use driving as an alternative. I will drive on highways. I feel fun as I listen to music while driving.	SS6: Driving (O1). SS7: Using driving as an alternative to vacationing due to latter high cost as a means to deal with stress (O1/O2). SS8: Listening to music while driving provides the fun (O1/O2).
I: Back to your first method, playing with your pet. How does that help you?	
P: It makes me feel loved. I feel appreciated.	SS9: Playing with pets makes her feel loved and appreciated (O2).
I: Right. How about the interaction with the people around you?	
P: When I interact with them, I check their mood to see if they are okay. If they are, I will interact normally with them. If not, I will say what is important. I will keep the rest to myself.	SS10: Checking others' moods prior to interacting with them and adjust interaction accordingly (O1).
I: Who do you mean by them?	
P: My father and mother. The people living with me.	
I: Who are those living with you currently?	
P: My father, mother, and my cats.	
I: How is your relationship with your parents?	
P: My relationship with my father is better than my relationship with my mother. If I need to vent, I can do it with my father. I	SS11: Venting out to father (O1).

need to be careful with my mother. There are many things to consider, like her mood and what to talk to her about. If not, the thing can trigger her or make her angry. I'm more afraid of her than my father. I: Who among your family that you are closest to? P: My second elder sister. I: Why is that?	SS12: Being careful when talking to mother to avoid triggering or upsetting her (O1).
P: Because when she was in her 20s, we shared similar interests; for example, we loved K-Pop, and we went to concerts together. My mother also perceived her as a black sheep of the family. I felt sorry for her. She had no friends growing up and was not close to other siblings. She was not close to me initially due to our age gap, as I was the youngest. But we became closer gradually as we spent time together cleaning the house and cooking. We shared things like our emotions, how I went through bipolar disorder, and how to explain to my father what bipolar disorder is. So, I need her to help make my father understand bipolar disorder. My mother will not understand it, and I just let it be.	SS13: Sharing similar interests with sister (O2). SS14: Sharing experiences with her sister, e.g., house chores, emotions, thoughts (O2). SS15: Using sister's help to make her father understand about bipolar disorder (O1/O2).
I: Do you share your life issues with that sister? P: Yes. I: Besides sharing life issues with her, how else has she helped you?	SS16: Sharing life issues with sister (O1/O2).
P: From what I can remember, she helped prevent me from hurting myself. She told me that if I committed suicide, the people with whom I was angry or those I felt had neglected me would continue their lives as usual. It's me that would lose everything. It made me think. I was 23 years old then. She's right. Everyone's life would continue, but mine would just end like that. At least I had to get something out of this life first, and dying…everyone will die. So, I gave myself a chance. I: She encouraged you to continue living and supported you. P: Yes. I: What else do you think this sister has helped you besides giving you emotional and social support? Or other family members whom you think have helped you?	SS17: Sister's advice helped her avoid self-injurious behaviour (O2). SS18: Sister's advice made her reconsider regarding self-injurious behaviour (O2). SS19: Giving self a chance to live after sister's advice (O1/O2).

P: My late brother-in-law. He helped in my business and took care of my sick cats. My mother refused to let any sick cats stay at home, so I had to send them to him for care. When he passed away, it left a big impact on me. Even though, in the beginning, I thought it would be alright, it still impacted me because when my cats were sick, I could not bring them anywhere else, but I still had to. Recently, there was a cat he had taken care of before, and it has found a new owner because I can no longer look after it. I felt sad when I saw the cat with its new owner, but I had to let it go. I could not control my mother, and the house did not belong to me.	SS20: Late brother-in-law helped in business and took care of her sick cats when her mother refused to let sick cats stay at home (O1/O2). SS21: Brother-in-law's passing left a big impact on her (O2).
So, I have to find ways to calm myself.	SS22: Finding ways to calm herself (O1).
Regarding my siblings' support, my eldest sister is like a rebel. If I want enjoyment, I can look for her, but not for serious matters. My eldest brother thinks that my mental issues are jokes. My second elder brother focusses only on his work. I am only close to my father and my second elder sister. So,	SS23: Not receiving close support from other siblings (O2).
besides emotional support, they help support in financial means. I: So both your father and sister support you monetarily? P: Yes. They are providing me with financial support after I closed down my business.	SS24: Father and sister provide emotional and financial support (O2).
Thankfully, my bipolar disorder is better now, and I do not spend impulsively. I: I see your father and sister have supported you emotionally and in practical aspects like money, and I understand that your relationship with your mother has not been good. P: Actually, I was very close to her from the time I was growing up until she changed.	SS25: Improved bipolar disorder condition (O2).
It became obvious when she was okay with my brothers making mistakes, but when her daughters made mistakes, it became a big issue, even if they were minor, just like my brothers did. Over time, I felt hurt and asked why she did that. Then, I found out that her maternal family also acted that way. They are okay if their men do not work, sleep from sunrise to sunset, and do not clean the house. But it is different for the daughters. However, my mother is okay with my eldest sister being lazy, but it's different for my	SS26: Relationship with mother strained due to the mother's preferential treatment of her children (O2).

second elder sister and me. She would nag all day long. Before she had OCD, we hugged her, but after that, she refused to be touched by others. I understand, but she has kept stressing me about not working since I closed my business. When I was first treated for bipolar disorder, she took it lightly. She thought I was not ill. She thought I just wanted to sleep and be lazy. Those things gradually created a gap between her and me, and now the gap has reached its limit. I still care for her. I: Does your family now understand your bipolar disorder? P: It can be said that they now understand, but those who don't understand still say that that's not serious. I: What do you think about your illness control? P: Much better now compared to when I was first diagnosed. There are a lot of differences. I: What have contributed to the differences? P: Maybe the age factor. I have become more mature. After age 25, I learned that there were things I had to let go of. However, when I was triggered, I would still keep the issue in my mind. When I couldn't think anymore, I would sleep because I didn't know what else to do. Even after taking the medication, my mind would still be actively thinking. In the end, I would just sleep it off. During those sleep, I would have weird dreams. I would know I was stressed then. I: You mentioned that when you were thinking a lot, one way you used to cope was sleep. How often do you use that method? P: I sleep regularly at night. If I am free during the day, I will sleep. I: How does sleep help you? P: It stops me from thinking. If I don't sleep, I will think a lot. I: How do you think about the treatment you have received? P: I have seen five doctors. All five doctors gave me different experiences. Only when I saw the fifth doctor did I feel the doctor was suitable for me. I feel motivated to see that	SS27: Physical bonding with mother stopped after she refused to be touched due to OCD (O2). SS28: Mother keeps stressing her about her unemployment (O2). SS29: Mother took it lightly about her bipolar disorder (O2). SS30: Some family members take her illness lightly (O2). SS31: Improved illness control (O2). SS32: Attributed better illness control to age and maturity (O2). SS33: Learning about letting certain things go (O1). SS34: Keeping the issue in mind when being triggered (O2). SS35: Use sleep when couldn't think anymore (O1). SS36: Sleep stops her from thinking a lot (O1). SS37: Think that the 5th doctor was suitable for her and feel motivated to see the doctor (O2).

doctor, and I don't worry about whether they* (the doctor) want to hear what I'm going to say or whether the advice given suits me. My first doctor did not seem like a doctor to me but like a grown man who gave me a lot of advice. I have received many advice, but I want advice from a consultant. The second doctor had a bad attitude. They touched their patient without consent. The third one, they only listened and prescribed medication. Their medication was very expensive. The fourth only focussed on wanting me to have psychotherapy. They gave me one medication to try, and I returned in two months to change the medication—no change in my condition. When I asked for advice, they advised me to pay for psychotherapy. So, I felt stressed, and there was a gap until I met my fifth doctor. I thought I wouldn't know what else to do if the fifth doctor were not helpful. Maybe I needed to find another doctor. But I am grateful that my fifth doctor, Dr L, suits me. I: How has the doctor helped you, and what do you need in treatment? P: I need to improve. He has made me want to improve myself. If I feel I have not improved before the clinic visit, I must wait until I have improved first. I do not want to disappoint the doctor. I don't bother about previous doctors because I don't feel that they care. But this doctor has made me feel that I need to improve myself. So, when I see the doctor, I am better than previously. I: What do you think about the treatment, including the medication? P: There's one medication I have tried, and it helped, but its side effects caused me to feel nauseous and vomit. When I told the doctor, they listened and changed it. When I told the doctor I did not want medication that would make me drowsy because I had to drive, they listened and gave me the medication to try. So, the treatment I receive now is different than before. My previous doctors appeared to be forcing me to take the medication based on what they wanted without being aware that this is my	[*This pronoun is used as it is gender neutral] SS38: Not worrying when seeing the doctor (O2). SS39: Needing consultant's advice (O3). SS40: Doctor's bad attitude (O2). SS41: Expensive medication (O2). SS42: Feeling stressful as the doctors couldn't help her until she met the 5th doctor (O1/O2). SS43: Needing to improve self (O3). SS44: Doctor has made her wanting to improve self (O2). SS45: Would wait until she feels improved before seeing the doctor as not wanting to disappoint them (O1). SS46: Seeing the doctor helps her becomes better (O1/O2). SS47: Telling her doctor her issues (O1). SS48: Doctor listens to her complaints and changes medicines accordingly (O2). SS49: Feeling forced to take medication prescribed by her previous doctors (O2). SS50: Being aware of own responsibility in her illness and treatment (O1).

responsibility that I need to handle. So, now I have less stress in that area. I: You mentioned about your responsibility. What do you think your responsibilities are in your condition? P: To prepare meals for my parents besides my responsibilities, such as waking up, getting ready, showering, and other things. I: So your responsibilities are not only for yourself but also include your parents as well. P: Yes. I: You mentioned watching movies earlier. How does that help? P: It helps bring me into the storyline. So I have the time to feel their life and experiences. I also like to watch true stories. It allows me to understand their experiences and life conditions. Sometimes, we feel that our lives are bad, but there are people who are worse than us and need to fight for their lives. I also watch documentaries. From there, I learned about people's life experiences. When I feel eerie from watching a horror movie, it makes me feel funny because humans are scarier than ghosts. I: How often do you watch movies or TV programmes? P: I watch the TV every day. If there is a cooking programme, I like to watch it. If none, I will watch cartoons or horror movies. I: The third method you shared earlier was driving. Can you share how it has helped you? P: I listen to songs while driving to buy cooking ingredients or just to drive on the highway from SP North to SP South. I feel as if I can run away from home, but I do return home. At that moment, I felt that I had escaped. I went for a car wash and did some shopping. It's like therapy for me. I: Is shopping also a coping method for you? P: Yes, but not that type of shopping for clothes and all, but shop for things used in the kitchen. It's weird. I like to buy things for the kitchen. When I was doing my business, I liked to buy pens. But the pens	SS51: Being responsible for self and parents (O1/O2). SS52: Watching movies allows her to feel and understand the life experiences of the characters in play (O2). SS53: Watching TV daily (O1). SS54: Listening to songs while driving (O1). SS55: Driving helps her feel as if she has escaped from home (O1/O2). SS56: Driving out and going for shopping and car wash are like therapy for her (O1/O2). SS57: Shopping for things for the kitchen a coping method for her (O1).

are expensive now, and I stopped buying them. Now, I only buy necessities. I feel weird about buying kitchen things, but I enjoy it. I: So, does buying things make you happy? P: Yes. I also heard that people with bipolar disorder love to shop. So, rather than buying things that are not needed, I buy useful things. I change to something useful. Previously, I liked to buy toys for decoration, which was a waste of money. So, I buy things I can cook, like pasta and spaghetti.	SS58: Changing shopping strategy from buying something wasteful to something useful (O1).
I: Is cooking one of your methods? P: No. I only like to watch cooking programmes because cooking there looks simple. And I can learn from there when I need to cook for myself or my family. But it's not a therapy for me.	SS59: Learning to cook for family and self from TV cooking programmes (O1/O2).
I: You also mentioned that you like to travel or take vacations. P: Yes. It was previously. I would save money to go to Langkawi because I liked the journey. We woke up and drove to Perlis Jetty. We took the ferry there. When we reached Langkawi Island, I felt I was in a different place, which made me happy. I had not been ill then. At that time, I was very excited about the trip. I didn't sleep the whole night, and it was no issue. But when we were to return, my mood went down. I did not feel the same after the illness. There were times when I was depressed when we went on vacations. The things I used to like, I disliked. But now I feel happy even if I travel to KL using ETS.	
I: So you feel happy while travelling. P: Yes. The feeling returns. Previously, it was gone. At that time, I escaped from my mother, and she knew it.	SS60: Travelling brings happy feelings (O2).
I: Who do you usually go out with? P: My father, because he also likes to go out. He has to go out with me now because he's in a wheelchair. Sometimes, I go out by myself.	
I: Do you have any close friends? P: My second elder sister. None other than from my family.	SS61: No close friends (O2).
I: Is there a reason for that?	

P: Usually, people make friends in school, but I already had issues because sometimes I went to school and sometimes I didn't. I also moved a lot, so there were no permanent friends. When I was doing my business, there were workers, and we couldn't be friends. I still befriend my sister's employee, but she has her own life. I always feel there's a gap. For others, they can bring their friends to their home, but my mother does not like it. My eldest sister has informed me that my mother does not like us to bring people home. So, I have never experienced a good relationship outside the family. For other people, they are good, even with their cousins, but not me. I: Based on your life experiences, what do you think you need to improve your condition? P: I need to reduce my social anxiety. That is difficult because I tend to sweat and palpitate when I meet people in public. I always feel that I am being judged. I feel that they know me, but they don't. I: You mentioned feeling judged by other people. P: Yes. I: Are there other things you need but have not gotten it? P: Money for treatment. Previously, I thought of using money for enjoyment or driving nice cars. Those things are okay, but health comes first now. At the end of this month or early next month, my father will undergo left cataract surgery. Luckily, my sister can get a loan for that. That got me thinking that money is needed because if we go for government service, there's a wait for a year or two. I see because there's money, my father can be helped. Some people say money can't buy happiness. I agree. I have been through that. My business was successful, but I wasn't happy. I didn't even look at the bank account. I realised then that money can't bring true happiness, but people need money. I: Anything else that you want to share or add? P: If you can escape from a narcissist or a toxic person, try your best to escape. Don't	SS62: Drawing a boundary between employer-employee relationship (O1/O2). SS63: Limited friendship experience as her friend is occupied with her own life (O2). SS64: The mother does not like her to bring friends back home (O2). SS65: No good relationship outside the family circle (O2). SS66: Need to reduce social anxiety (O3). SS67: Feeling being judged by the public and causes her to be anxious (O1/O2). SS68: Need money for illness treatment (O3). SS69: Changing perception about how money is spent, and seeing health is more important now (O1). SS70: Not feeling happy despite having a successful business (O1). SS71: To have the ability to escape from a narcissist or a toxic person (O3).

try to stay in their circle or be dependent on them. I see how my father depends on my mother until he can't leave the circle. That's a real suffering. We only live once, and why do we need to waste our lives on those who don't appreciate us even though we have done all we can for them? That's how I feel. I: Thanks for your participation in this study.	(Total data fragments: 71)

4) Initial-Current Coding Development

Transcript 1 analysis

Initial codes	Current codes
Medication CL3: Taking medication is an important way to feel better. CL4: Using medication to improve life. CL11: Medication perceived as the only thing that helps. CL50: Awareness illness will relapse without medication. CL23: Medications cause sleepiness. CL24: Regular medication intake. CL25: Discussion with the doctor about medication issue and receiving advice what to do. CL22: Medications are making responses become slower. CL38: Feeling tired after medication affects ability to do housework.	Regularly taking medication helps feel better and improves life (CL3, CL4, CL11, CL24) ***As CL 1*** Being aware of illness relapse if letting go of medication (CL50) ***As CL2*** Experiencing medication side effects, i.e., slower responses and sleepiness, affecting personal and work activities (C22, C23, C38) ***As CL3*** Discussing with the doctor about the medication issue (CL25) ***AS CL4***
Exercise CL6: Doing physical exercises. CL7: Regular physical exercises. CL8: Using the badminton court to play badminton. CL9: Joining husband and his friends to play badminton.	Doing regular physical exercises (CL6, CL7) ***As CL5*** The availability of the badminton court for playing badminton (CL8) ***As CL6*** The involvement of her husband and his friends in her physical exercises (CL9) ***As CL7***
Husband CL2: Husband's comfort during illness. CL10: Husband's encouragement in exercising and not taking sleeping pills. CL13: Husband's frequent encouragement and his belief that only medication can help her. CL14: Husband's advice when she's unhappy. CL15: Husband's encouragement. CL53: Calling husband for help to bring child to hospital.	Husband's involvement in providing support and encouragement in her life and treatment (CL2, CL10, CL13, CL14, CL15, CL41, CL44, CL53) ***AS CL8*** Ignoring husband's negative attitude (CL39) ***As CL9*** Husband's problem at work affects his treatment of her at home (CL37) ***As CL10***

CL37: When the husband is not happy at work, he scolds her at home. CL56: Husband shares work experiences with her at home. CL39: Not bothering much about husband's scolding at home or it would make her depressed. CL41: Husband's initiative to understand about bipolar disorder. CL44: The husband's accompaniment to receive treatment at the hospital.	Husband's sharing personal work issues with her at home (CL56) ***As CL11***
<u>Mother-in-law</u> CL12: Mother-in-law helps look after the children. CL17: Mother-in-law helps look after her children and reduces her stress. CL51: Requesting help from mother-in-law.	Involvement of her mother-in-law to look after her children reduces stress in her life (CL12, CL17, CL51) ***AS CL 12***
<u>Mother</u> CL49: Mother's advice when she's unhappy. CL16: Mother's frequent advice to take medication.	Mother's involvement in giving life and treatment advice (CL16, CL49) ***As CL13***
<u>Home</u> CL20: Tendency to think negatively at home. CL21: Only looks after children at home, and when baby throws tantrum, that disrupts her other work at home. CL52: Afraid that children hurt themselves when she's caring for them which is due to past experience.	Tendency for negative thinking and worry at home and about the children (CL20, CL21, CL52) ***As CL14***
<u>Work</u> CL18: Going out to work due to boredom at home looking after children. CL19: Work reduces stress by limiting negative thoughts. CL26: Employer's comments about slower responses due to the medication. CL27: Only inform selective work colleagues about mental health condition. CL28: Not daring to tell employer about mental health condition due to his tendency to be easily angry.	Going out to work outside to prevent boredom and negative thoughts at home (CL18, CL19, CL29) ***As CL15*** Workplace influences selective disclosure with colleagues about mental health conditions due to concerns about misperceptions from others (CL26, CL27, CL28, CL30, CL34, CL35, CL36) ***As CL16***

CL29: Work takes the mind off from negative thinking. CL30: Developing a work acquaintance. CL31: Ignoring employer's negative attitudes. CL32: Doing reflection after being scolded by her employer and then letting it go. CL54: Being afraid when scolded initially but not being afraid now. CL55: Being convinced it's not her fault that led to his scolding. CL33: Forgiving and comforting the employer after he apologises. CL34: Employer does not understand about bipolar disorder. CL35: Worry that if the employer knows about her illness, she would not be hired. CL36: Worry that others may know about her illness but do not understand what bipolar is.	Doing self-reflection helps her let go of negative feelings and forgive the employer (CL31, CL32, CL33, CL54, CL55) ***As CL17***
<u>Treatment</u> CL47: Receiving treatment and support from mental health professional. CL57: Needed to wait a long time for treatment. CL42: Long waiting hours to see a doctor and to get medication. CL43: Not bother about long waiting time for treatment anymore after rationalising about the staff slow work pace. CL45: Difficulty finding parking space at the treatment centre.	Long waiting hours to receive treatment and limited vehicle parking space at the treatment centre (CL42, CL45, CL47, CL57) ***As CL18*** Not bothering about the long waiting time after rationalising it to be due to the staff's slow work pace (CL43) ***As CL19***
<u>Illness</u> CL1: Limited awareness of own actions during an illness relapse. CL46: Refusing medication when ill in the beginning of illness.	Limited health awareness during illness (CL1, CL46) ***As CL20***
<u>Independent others</u> CL5: Practice regular sleep pattern. CL48: Focussing on children when they are around, and focussing on work when at work.	Practices regular sleep pattern (CL5) ***As CL21*** Selective focussing at home and work (CL48) ***As CL22***

Transcript 2 analysis

Initial codes	Current codes
Father NA4: Her father's stroke makes her blame self and worsens her condition. NA5: Feeling stressed when father scolds mother. NA17: Caring for her sick father prevents her from continuing her medical studies. NA19: Father's behaviour triggered her and made her anxious. NA20: Calling sister to come home for comfort due to her father's behaviour. NA31: Her father is perceived to have negatively affected her.	The father's condition and unpleasant behaviour negatively affect her (NA4, NA5, NA17, NA19, NA 31) ***As NA 1*** Calling her sister for comfort after being triggered by her father (NA20) ***As NA2***
Other family and friends NA44: Staying with aunt in KL while not able to work. NA13: Mental illness stigma from family. NA12: Friends and aunt with knowledge about mental illness found to be helpful. NA14: Family believes mental illness treatment is only medication. NA15: Her aunt, some friends, and her doctor help explain her mental health issues to her family. NA16: Disclosing her mental illness to her mother and sister. NA49: Telling family not ready for studies. NA23: The sister trying her best to support her. NA23: Selective sharing with one of her best friends as not to disturb the others. NA24: Feeling better after meeting with her best friends even though they are not aware of her mental health issues.	Support and involvement of her aunt, friends, and her doctor in providing support and explaining her mental health condition to her family (NA12, NA15, NA23, NA24, NA44) ***As NA3*** Negative perceptions about mental illness from her family (NA13, NA14) ***As NA4*** Selective sharing about mental health condition with her friends as not wanting to disturb the others (NA24) ***As NA5*** Telling her family that she's not ready for studies (NA49) ***As NA6*** Disclosing her mental health illness to her family (NA16) ***As NA7***
Medication NA1: Experiencing side effects with medication. NA3: Experiencing medication issues due to thyroid problem. NA18: Taking medication makes things alright.	Experiencing medication side effects and issues (NA1, NA3) ***AS NA8*** Taking medication makes things alright (NA18) ***As NA9***

<u>Mental health support</u> NA45: Receiving psychiatric treatment support. NA6: Psychologist advices and teaches how to avoid overthinking. NA7: Needing a psychologist and regularly meeting with her. NA9: Being attended by different psychiatrists with different levels of perceived competency. NA46: Encountering a psychiatrist who questions about her feelings. NA10: Not putting much hope on psychiatrists due to the impact of what they said on her. NA47: Regular meeting with psychiatrist and psychologist. NA11: Seeing psychiatrist only to talk about medication but discussing other issues with psychologist. NA48: Asking her doctor to explain her mental health condition to her family. NA21: ED staff claims she is not close to God when she has an anxiety attack. NA50: Not able to self-control is perceived by ED staff as not being close to God. NA22: Doctor in ED claims she pretends and diagnose her with stress. NA51: Sharing life experiences with psychologist and OT. NA22: Being taught relaxation techniques by the occupational therapist and having someone to talk to.	Mental health support teams from the psychiatrist, psychologist, and occupational therapist help address her different treatment needs, i.e., medication, life issues advice, and relaxation (NA6, NA7, NA11, NA22, NA45, NA47, NA51) ***As NA10*** Different levels of competency and unhelpful approaches from medical professionals who attended her for mental health issues (NA9, NA10, NA21, NA22, NA46, NA50) ***As NA11*** Asking her doctor to explain her mental health condition to her family (NA48) ***As NA12***
<u>Work</u> NA2: Doing something, like house cleaning, helps prevent overthinking and feeling depressed. NA25: Keeping herself busy by being active in organisations, e.g., doing volunteering work. NA27: Having a suited regular teaching job helps her feel a sense of achievement. NA28: Not disclosing mental health condition with colleagues. NA29: Asking colleagues for their work advice/opinions.	Keeping herself busy by being active at work and doing something helps prevent overthinking and feeling depressed (NA2, NA25, NA30) ***As NA13*** Being a teacher gives her a sense of accomplishment (NA27) ***As NA14*** Not disclosing mental health condition with colleagues (NA28) ***As NA 15***

NA30: Busy work prevents overthinking.	Asking colleagues for work advice (NA29) ***As NA16***
<u>Desires</u> NA26: Trying hard to regain previous self and enjoying the process. NA52: Blaming herself for not being able to complete her studies. NA53: Want to continue studies. NA35: Having self-doubt regarding continuing studies. NA 43: Afraid of being unable to cope despite intending to further studies.	Being afraid and having self-doubt about her desire to continue her education (NA35, NA43, NA52, NA53) ***As NA17*** Trying hard to regain her previous self-capacity (NA26) ***As NA18***
<u>Interaction with others</u> NA36: Likes meeting people around her. NA37: Avoiding people who knew her due to being insecure. NA39: Avoiding neighbours who ask personal questions. NA42: Likes interacting with people with similar mental health issues.	Meeting and interacting with people around her with similar mental health issues (NA36, NA42) ***As NA19*** Avoiding those whom she knew and those asking her personal questions (NA37, NA39) ***As NA20***
<u>Money</u> NA40: Money is a cause of arguments in the family. NA41: Being careful about spending money to avoid stress.	Money is one cause of stress in the family (NA40) ***As NA21*** Being careful with spending money to avoid stress (NA41) ***As NA22***
<u>Independent others</u> NA8: Having a perfectionist trait causes difficulty accepting sudden unexpected plan changes. NA32: Likes jogging, listening to music, and trekking. NA33: Likes going to the public library to read. NA34: Likes travelling and food hunting. NA38: Likes public transportation due to its convenience.	Likes going to the public library and prefers public transportation (NA33, NA38) ***As NA23*** Likes jogging, music, trekking, travelling, and food hunting (NA32, NA34) ***As NA24*** Having a perfectionist trait causes difficulty accepting sudden, unexpected plan changes (NA8) ***As NA25***

<u>Transcript 3 analysis</u>

Initial codes	Current codes
Illness disclosure MI4: Not telling housemates about his mental health condition. MI7: Disclosing mental health condition to family. MI25: Mother asks after seeing medication and sister checks them out. MI8: Not disclosing mental health issues to family initially because not wanting to burden them and make them worry. MI26: Not telling parents when sick to avoid them from asking too much. MI15: Not disclosing about bipolar disorder in workplace. MI16: Reading on social media not to disclose sensitive personal information to colleagues. MI17: Worry that if colleagues know about his illness, they may think he just pretends and refuses to work hard.	Not disclosing mental health conditions to family, housemates, and colleagues as not wanting to make them worry, avoid them from asking too much, and worry that the colleagues might perceive him as pretending and not working hard (MI4, MI8, MI26, MI17) ***As MI1*** Not disclosing about bipolar disorder in the workplace (MI15) ***As MI2*** Reading on social media not to disclose sensitive personal information to colleagues (MI16) ***As MI17*** Disclosing mental health condition to the family after the family discovers and asks about his medication (MI7, MI25) ***As MI3***
Relationships MI5: Being close to his partner with regular contact. MI6: Partner's accompaniment to treatment and constant care and concern. MI27: Not much talking with parents. MI9: Differential treatment received compared to other siblings. MI10: Better relationship with parents now due to changed perception over the years. MI28: Not being close to neighbours-history of unpleasant encounter with them. MI11: Meeting up with strangers as they are friendlier. MI12: Spending time with new friends doing activities like watching movies.	Close contact with his partner who provides constant accompaniment, care, and concern (MI5, MI6) ***As MI4*** Improved relationship with his parents due to their changing behaviour by providing equal treatment among him and other siblings over the years (MI9, MI10, MI27) ***As MI5*** Meeting up and making friends with strangers as they are friendlier (MI11, MI12) ***As MI6*** Not close to neighbours due to previous unpleasant history with them (MI28) ***As MI7***
Supports MI14: Work supervisor understands his anxiety and arranges night shifts for him. MI20: Accompaniment of partner to the hospital. MI21: Partner's regular contact helps.	Partner's regular contact and accompaniment to the hospital (MI20, MI21) ***As MI8***

	The work supervisor understands his anxiety and arranges night shifts for him (MI14) ***As MI9***
Personal activities MI2: Go sightseeing. MI24: Regularly going for exercises near place of living. MI3: Sightseeing and regular exercises help relax and stabilise mood. MI19: Spending time with stray cats.	Going for regular exercises and sightseeing, and spending time with stray cats help him relax and improve mood condition (MI2, MI3, MI19, MI24) ***As MI10***
Stressors MI22: Brother's debts and sister's cancer impact his life. MI23: Parents ask for money when he does not have enough, and makes him sad.	Brother's debts and sister's cancer have impacted his life (MI22) ***As MI11*** Feeling sad when his parents ask him for money when he does not have enough (MI23) ***As MI12***
Independent others MI1: Difficulty controlling self when in mania. MI13: Medication improves anxiety at workplace and helps work performance. MI18: Reluctant to go for a new job interview due to previous experience of anxiety. MI29: No difficulty going to the hospital for treatment.	Difficulty controlling self when in mania (MI1) ***As MI13*** Taking medication improves his anxiety and work performance (MI13) ***As MI14*** Reluctant to go for a new job interview due to previous unpleasant experience with anxiety (MI18) ***As MI15*** No transportation issue to the hospital for treatment (MI29) ***As MI16***

Transcript 4 analysis

Initial codes	Current codes
Personal enjoyment ML2: Going to an enjoyable place to sing and relax. ML3: Dancing and feeling happy at the club. ML5: Feeling calmer after sitting on a massage chair in the club.	Going to the social club to relax, draw courage, and to feel calm and happy (ML2, ML3, ML5, ML11) ***As ML1*** Going to the club by bus if her father cannot accompany her (ML12) ***As ML2***

ML12: Going to the club on a bus if her father cannot accompany her. ML11: Drawing courage from the club (the place she likes to visit).	
Personal activities ML8: Finding things to do. ML16: Playing with children. ML17: Playing with her phone.	Finding things to do (ML8) ***As ML3*** Playing with her children (ML16) ***As ML4*** Playing with her phone (ML17) ***As ML5***
Communication ML6: Talking to the eldest son as a way of dealing with life problems. ML18: Talking with her father.	Talking to her father or her son as a way to deal with life-related stress or problems (ML6, ML18) ***As ML6***
Issues perception ML9: Being expectant with potential life stress. ML10: Being prepared and having the courage for unavoidable events.	Being ready with courage for potential stressful events (ML9, ML10) ***As ML7***
Issue management ML13: Staying calm. ML14: Trying to overcome. ML15: Having the courage to face the issue. ML1: Not to thinking too much by emptying her mind. ML7: Being intentional about overcoming life stress.	Being intentional about overcoming life stress with courage and staying calm without thinking too much (ML1, ML7, ML13, ML14, ML15) ***As ML8***
Independent other ML4: Not sharing personal problems with others after doctor's advice to prevent others laughing at her.	Not sharing personal problems with others after her doctor's advice to prevent others from laughing at her (ML4) ***As ML9***

Transcript 5 analysis

Initial codes	Current codes
Support	

J3: Aunt used to look after her medication intake. J4: Aunt listens to her problems. J28: Frequently sharing her problems with her aunt. J5: Aunt gives her solutions when talking to her about her problems. J7: Used to share problems with her work colleagues. J12: Friends at work provided a listening ear. J13: Sharing life problems with cousins. J14: Talk to cousins via phone calls or them coming for a visit. J15: Keeping regular contact with cousins. J29: Received advice from the counsellor but didn't listen to her. J8: Lost contact with friends at work after stopped working.	Regularly shares her problems with her aunt, her cousins, and friends at work (J4, J5, J7, J8, J12, J13, J14, J15, J28) ***As J1*** Aunt looks after her medication intake (J3) ***As J2*** Received advice from the counsellor (J29) ***As J3***
<u>Shopping</u> J2: Go shopping. J19: Taking advantage by doing online shopping when not able to sleep (O1). J20: Doing online shopping and buying groceries. J30: Using phone to access online shopping sites. J21: Going to the shopping mall. J22: A mall within walking distance from the house.	Going to the shopping mall within walking distance from her house to shop (J2, J21, J22) ***As J4*** Doing online shopping with her phone when not able to sleep (J19, J20, J30) ***As J5***
<u>Work</u> J9: Stopped working due to transportation, health, and work-related issues. J10: Changes made to the location of the transportation hubs caused her not feasible to travel to her workplace. J11: Difficulty travelling to work due to ageing.	Transportation system changes has caused her difficulty travelling to work (J10) ***As J6*** Work-related issues have contributed to her stopping work (J9) ***As J7*** Difficulty travelling to work due to ageing (J11) ***As J8***
<u>Books</u> J23: Used to read books. J24: Stop buying books to read as no more space to keep books at home.	Stop buying books to read as there is no space to keep them at home (J23, J24) ***As J9***

Housing environment J31: Quiet housing environment. J26: Safe housing environment.	 Quiet and safe housing environment (J26, J31) ***As J10***
Activities J1: Listens to music, watches TV programmes or movies. J18: Coping with emotional issues by listening to music, watching movies, talking to a counsellor regularly. J25: Doing gardening.	 Listening to music and watching TV programmes or movies as a form of coping (J1) ***As J11*** Talking to a counsellor regularly to cope with emotional issues (J18) ***As J12*** Doing gardening (J25) ***As J13***
Limitations J6: Being unable to make decisions. J16: Emotional dysregulation despite at a mature age.	 Emotional dysregulation and difficulty making decisions despite being at a mature age (J6, J16) ***As J14***
Independent others J27: Difficulty coping with illness at the beginning of illness. J17: Diligent medication intake. J18: Awareness that she needs to overcome emotional problems despite being helped by medication.	 Difficulty coping with illness at the beginning of illness (J27) ***As J15*** Diligent medication intake (J17) ***As J16*** Awareness about the need to overcome emotional problems despite being helped by medication (J18) ***As J17***

Transcript 6 analysis

Initial codes	**Current codes**
Food WJ1: Eating a lot when stressed. WJ4: Learning to cook foods that help him relaxed. WJ25: Developing a cooking habit at home. WJ5: Regular cooking at home. WJ26: Not difficult to buy food and cooking ingredients.	 Developing a cooking habit at home to help him relax (WJ4, WJ5, WJ25) ***As WJ1*** Shopping for food and cooking ingredients are not difficult (WJ26) ***As WJ2***

WJ7: Shopping for food ingredients a relaxing activity. WJ27: Eating out with his housemate.	Shopping for food as a relaxing activity (WJ7) ***As WJ3*** Eating out with his housemate (WJ27) ***As WJ4***
<u>Exercise</u> WJ2: Using exercise after realising that eating alone will not solve the problem. WJ8: Doing exercise with a housemate. WJ10: Regularly use the gym facility in the housing area. WJ11: Regular swimming and jogging. WJ21: Exercising and playing games are used to deal with stress-related issues.	Doing exercise with a housemate (WJ8) ***As WJ5*** Doing physical exercises at a gym facility in the housing area (WJ10) ***As WJ6*** Regular physical exercises (WJ11) ***As WJ7*** Playing online games to deal with stress (WJ21) ***As WJ8*** Doing exercise after realising excessive eating will not solve the problem (WJ1, WJ2) ***As WJ9***
<u>Online games</u> WJ3: Playing electronic (online) games to help relax. WJ12: Playing electronic games regularly to relax. WJ13: Learning about communication in an (online) game. WJ14: Playing (online) game is like a therapy for him. WJ15: Taking the opportunity to learn being optimistic in a game. WJ16: Learning about emotional control and communication in (online) games. WJ20: Gaming activity helps understand workplace roles, thus allowing better job assignment and communication.	Playing online games regularly is like therapy, which helps him relax (WJ3, WJ12, WJ14) ***As WJ10*** Learn about being optimistic, communication and emotional control (WJ13, WJ15, WJ16) ***As WJ11*** Improved communication and performance at work due to online gaming activity (WJ20) ***As WJ12***
<u>Interactions with others</u> WJ28: Continued interactions improve things when staying with people from a different culture. WJ9: Not carrying any prejudice helps with staying with culturally different people. WJ17: Being aware of own emotions and asking people to control their behaviour.	Continuous interactions without carrying any prejudice with people of different cultures help improve relationships (WJ9, WJ28) ***As WJ13***

	Being aware of his own emotions and requesting others to control their behaviour (WJ17) ***As WJ14***
<u>Dealing with mood swings</u> WJ22: Taking a rest or a short break to calm down during mood swings. WJ23: Taking a walk, going to the toilet or buying a drink to self-calm before dealing with an issue. WJ24: Being aware of the inability to make important work decisions during poor mood.	Being aware of his inability to make important decisions during poor mood (WJ24) ***As WJ15*** Taking short breaks or a walk to calm down during mood swings (WJ22, WJ23) ***As WJ16***
<u>Positivity</u> WJ18: Being positive by focussing on his objectives and avoiding distractions. WJ19: Being positive and looking out for opportunities. WJ29: Doing what he can to stay positive.	Doing what he can to stay positive by focussing on his objectives, looking out for opportunities, and avoiding distractions (WJ18, WJ19, WJ29) ***As WJ17***
<u>Independent others</u> WJ6: Using the driving time to listen to podcasts. WJ30: Learning from others' experiences.	Listening to podcasts when driving (WJ6) ***As WJ18*** Learning from others' experiences (WJ30) ***As WJ19***

<u>Transcript 7 analysis</u>

Initial codes	**Current codes**
<u>Husband</u> LF1: Trying to avoid and not notice husband when stressed with him. LF2: Trying to be patient with husband. LF6: Husband's seldom available to look after family. LF9: Husband's distrusting her. LF33: Husband's suspicious of her. LF11: Using alcohol to build courage to confront her husband. LF36: Perceiving husband's friends in influencing husband to discourage her to advance her career.	Her husband's friends influence him to distrust and suspect her of an affair and discourage her from advancing in her career (LF9, LF13, LF33, LF36, LF37) ***As LF1*** Staying quiet and being patient with him, or trying to avoid him when he's not in a good mood or when she's stressed with him (LF1, LF2, LF17, LF18) ***As LF2*** Husband cares for her when unwell but seldom available to look after the family

LF13: Husband's distrusting her due to friends' influence. LF37: Husband's suspicion of her of an affair. LF39: Husband's making noises disturbed her sleep. LF40: Observing husband's mood during that day, and deciding her next action. LF16: Husband's lashing out at her when not in a good mood. LF17: Avoiding husband when he's in a bad mood. LF18: Staying quiet and giving in to her husband when husband's not in a good mood. LF20: Receiving care from husband when unwell. LF21: Receives severe scolding from the husband when trying to claim bills from him. LF41: Earning money to repay her husband and avoid his scolding. LF29: Husband prefers wife not working, and to accompany him whenever he's out drinking with friends. LF30: Being honest with husband about disliking to join him for drinks with his friends.	and scolds her when he's in a bad mood or when she asks him money to pay the household bills (LF6, LF16, LF20, LF21) ***As LF3*** Building courage with alcohol to confront her husband and tell him about disliking joining him for drinks with his friends (LF11, LF30) ***As LF4*** Observing her husband's mood during the day before deciding her next action and determining to earn money to repay her husband to avoid his scolding (LF40, LF41) ***As LF5*** Husband prefers wife not to work and to accompany him to drink with his friends (LF29) ***As LF6***
<u>Career</u> LF4: Dealing with stress by focussing on career. LF32: Unable to care for family and business at the same time. LF10: Wants to focus on her career LF34: Intent to do something new due to changing business situation. LF12: Aspiring to be a superwoman. LF26: Being occupied and busy to avoid dealing with family.	Keeping herself occupied and busy by focussing on her career as a way to deal with her stress (LF4, LF10, LF26) ***As LF7*** Being unable to care for her family and business at the same time (LF32) ***As LF8*** Aspire to be a superwoman with the intent to do something new for her business (LF12, LF34) ***As LF9***
<u>Learning</u> LF3: Spending time studying acupuncture to improve self. LF35: Seeing health is more important than wealth as believing the people are focussing that now.	Learning new knowledge to improve self and personal outlook and to share with others (LF3, LF25, LF28, LF38) ***As LF10*** Taking advantage of the fact that people are focussing on health, and fewer women

LF38: Maintaining physical outlook through learning Chinese medicine. LF24: Taking advantage that few women in Chinese medicine by learning about that. LF25: Using knowledge learned to self-help. LF28: Learning new knowledge and sharing with others on stage.	practice Chinese medicine by learning to do that (LF24, LF35) ***As LF11***
<u>Support</u> LF7: Asking mother to stay and help around. LF14: Sharing disturbing thoughts with a close friend, and receiving advice. LF22: Receiving mother's encouragement and support. LF23: Receiving siblings' support when bad things happen despite not in a good relationship.	Receiving her mother's and sibling's encouragement and support (LF22, LF23) ***As LF12*** Requesting her mother to stay and help her around (LF7) ***As LF13*** Sharing problems with a close friend and receiving advice from her (L14) ***As LF14***
<u>For family</u> LF8: Encouraging self by putting hopes on making her mother happy by the promises she has made to her. LF19: Trying her best to give her daughter the best by being a successful person.	Encouraging self by being a wealthy and successful person to give her daughter the best and to make her mother happy (LF8, LF19, LF31) ***As LF15***
<u>Independent others</u> LF31: Perceived money as source of happiness. LF5: Children and domestic helper causing her stress. LF15: Using earplugs to help in sleep. LF27: Meeting outside people to gain acknowledgement of and agreement from others.	Her children and domestic helper cause her stress (LF5) ***As LF16*** Using earplugs to help her sleep when the noises made by her husband disturb her sleep (LF15, LF39) ***As LF17*** Meeting outside people gives her a sense of acknowledgement and agreement from others (LF27) ***As LF18***

<u>Transcript 8 analysis</u>

Initial codes	**Current codes**
<u>Family conflict</u> NN2: Frequent arguments with family due to disagreements and different opinions.	Frequent arguments with family due to disagreement and different opinions, and

NN3: The need to submit to her parents' wishes all the time. NN23: Wants her desires and needs to be met and respected by her parents. NN4: Feeling excluded from the family. NN5: Not requesting help from family as perceived things will get worse. NN24: Father takes things lightly and being critical and mother nags a lot.	needing to submit to her parents' wishes all the time (NN2, NN3) ***As NN1*** The father takes things lightly and is critical, the mother nags a lot, and feeling excluded from the family cause her not to request help from the family (NN4, NN5, NN24) ***As NN2*** She wants her desires and needs to be met and respected by her parents (NN23) ***As NN3***
<u>Problems</u> NN6: Worrying that others might be uncomfortable or judge her when she shares her problems. NN7: Feeling uncomfortable sharing her problems and worry about being judged. NN25: Not asking anyone's help if any issue. NN26: Sharing problems with friends. NN11: Not thinking about her problems when watching movies and TikTok on her phone.	Feeling uncomfortable sharing her problems as she worries that others might be uncomfortable or judge her for that (NN6, NN7) ***As NN4*** Shares personal problems with friends but not asking for any help (NN25, NN26) ***As NN5*** Watching movies and TikTok on her phone prevents her from thinking about her problems (NN 10, NN11) ***As NN6***
<u>Artwork</u> NN12: Doing artwork. NN13: Pick up artwork again after suggestions by the occupational therapist. NN14: Feeling good when looking at her artwork.	Feeling good doing the artwork after suggested by the OT (NN12, NN13, NN14) ***As NN7***
<u>OT</u> NN15: OT activity helps to focus on the work and not think about problems. NN16: Feeling positive about the OT environment.	The positive OT environment helps her focus on the activity and not think about her problems (NN15, NN16) ***As NN8***
<u>Going out</u> NN8: Seldom going out due to transportation issues. NN9: Going out a form of stress relief. NN27: Not difficult accessing facilities near housing area.	Seldom go out due to transportation issues, although going out is a form of stress relief (NN8, NN9) ***As NN9***

Treatment NN19: Coming for regular monthly treatment. NN20: No problem attending the clinic as being sent there by parents.	Not difficult to access nearby facilities at the housing area (NN27) ***As NN10*** No problem going for regular monthly treatment at the clinic as she is sent there by her parents (NN19, NN20) ***As NN11***
Work NN21: Avoid returning home after studies and staying back to work due to problems with parents. NN22: Quit job due to some problems with colleagues.	Staying back to work after studies and avoiding home due to conflicts with parents (NN21) ***As NN12*** Resign from work due to problems with colleagues (NN22) ***As NN13***
Independent others NN1: Sleep to prevent thinking about her argument with other people. NN17: Feeling anxious around people and worry about offending people and vice versa. NN18: Feeling sedated with medication.	Using sleep to prevent thinking about her conflicts with other people (NN1) ***As NN14*** Feeling anxious around people due to her worry that she might offend others and vice versa (NN17) ***As NN15*** Experiencing sedation with medication (NN18) ***As NN16***

Transcript 9 analysis

Initial codes	Current codes
Support ZP1: Talking to family and friends. ZP4: Good relationship with family. ZP5: Shares many things with his brother. ZP6: Sharing life issues with mother. ZP7: Family provides support, encouragement, and by giving advice. ZP9: Family provides mainly moral support. ZP10: Asking advice from friends of similar age as they can relate. ZP13: Spending time with family outside. ZP27: Available mental health support service in college.	Sharing life issues and spending time together with family and friends who provide encouragement, support, and advice (ZP1, ZP4, ZP5, ZP6, ZP7, ZP9, ZP10, ZP13) ***As ZP1*** The availability of mental health support services in the college (ZP27) ***As ZP2***
College	

ZP14: Good study environment, and more people of the same race there helps in communication. ZP15: Joining and helping with mental health awareness campaigns in college. ZP16: Meeting with people of similar interests in clubs/societies in college. ZP17: Joining music society.	Joining and helping in college clubs and mental health campaigns and meeting with people with similar interests (ZP15, ZP16, ZP17) ***As ZP3*** Conducive study and cultural environment in college (ZP14) ***As ZP4***
<u>Interest</u> ZP2: Listening to music. ZP11: Listening to music at home. ZP12: Feeling the meanings of the lyrics. ZP28: Likes listening to music and singing.	Likes listening to music (songs) by relating to the meaning of the lyrics and singing (ZP2, ZP11, ZP12, ZP28) ***As ZP5***
<u>Work</u> ZP20: Good treatment from the employer. ZP29: Good relationship with work colleagues. ZP21: Not disclosing mental health conditions to colleagues as not wanting them to worry or think too much about it. ZP22: Disclosing mental health condition to a few friends.	Good relationship with employer and work colleagues (ZP20, ZP29) ***As ZP6*** Selective disclosure of mental health conditions to friends and colleagues as not wanting them to worry or think too much about it (ZP21, ZP22) ***As ZP7***
<u>Religion</u> ZP23: Going to the temple to pray. ZP24: Seeking advice and guidance from shamans. ZP25: Regular temple visits for prayers.	Going to the temple to pray and seeking advice and guidance from shamans (ZP23, ZP24, ZP25) ***As ZP8***
<u>Internet</u> ZP18: Learning to play musical instruments from the Internet. ZP19: Using the Internet to learn, listen to music, and watch movies.	Using the Internet to learn, listen to music, and watch movies (ZP18, ZP19) ***As ZP9***
<u>Independent others</u> ZP3: Taking a walk outside. ZP8: Learning to see an issue from another perspective. ZP26: Staying at home when not studying at college.	Taking a walk outside (ZP3) ***As ZP10*** Learning to see an issue from another perspective (ZP8) ***As ZP11***

	Staying at home when not studying (ZP26) ***As ZP12***

Transcript 10 analysis

Initial codes	Current codes
Religion KH3: Attending religious meetings regularly. KH4: Being encouraged in religious meetings to communicate with others. KH31: Seeing illness and supporting each other from a spiritual perspective. KH56: Joining religious meetings.	Regularly attending religious meetings and being encouraged in the meetings to communicate with others (KH3, KH4, KH56) ***As KH1*** Seeing illness and supporting each other from a religious perspective (KH31) ***As KH2***
Family and friends support KH2: Talking to his mother when in a bad mood. KH6: Being close to the mother. KH 7: Mother helps provide his daily needs, allowing him to focus on his work. KH25: Receiving concerns from relatives. KH26: Close relationship with relatives and sharing of personal issues. KH27: Sharing about patient's condition among family members. KH34: Receiving help from friends to monitor his mood.	Developing close relationships and receiving help from his mother, relatives, and friends with the sharing among family members of his condition (KH2, KH6, KH7, KH25, KH26, KH34) ***As KH3***
Mutual support KH 5: Encouraging others with similar issues makes feeling happier. KH28: Mutual support with a friend of similar illness condition. KH35: Mutual support with a friend with depression. KH57: Counsel friend when he's depressed. KH33: Realisation that people with similar condition understand each other better. KH29: Supporting a friend with a similar condition by alerting the friend's family when the friend was unwell.	Mutual support, encouragement, and counselling for those with similar issues (KH5, KH28, KH35, KH57) ***As KH4*** Realising that people with similar conditions understand each other better (KH33) ***As KH5*** Supporting a friend with a similar condition by alerting the friend's family when the friend is unwell (KH29) ***As KH6***
Work	

KH53: Busy workload. KH10: Colleagues who are encouraging. KH11: Going out for social activities with colleagues. KH9: Teaching a subject he likes. KH12: Struggling with teaching due to heavy workload. KH13: Feeling stressed due to the amount of work and no fixed time to rest. KH14: Limited rest time. KH17: Pleasant work environment without politics. KH18: Flexible work hours. KH55: Start working after sufficient sleep. KH19: Using his talking and helping skills in his work. KH20: Heavy workload. KH21: Reassigning work to another colleague. KH22: Sharing workload and profit earned with colleagues.	Stressed due to busy and heavy workload and limited time to rest (KH9, KH12, KH13, KH14, KH20, KH53) ***As KH7*** Going out for social activities with supportive colleagues (KH10, KH11) ***As KH8*** Flexible working hours and sharing the workload with colleagues allow sufficient rest (KH18, KH21, KH22, KH55) ***As KH9*** Pleasant work environment without toxic politics involved (KH17) ***As KH10*** Use his talking and helping skills at workplace (KH19) ***As KH11***
<u>Illness disclosure/awareness</u> KH23: Not disclosing mental health treatment to colleagues. KH24: Awareness of illness by the people close to him. KH30: Becoming more aware about the illness through involvement of their families. KH32: Being aware of the illness through friendship with someone with similar condition.	Selective disclosure of mental health condition only to the people close to him (KH23, KH24) ***As KH12*** Increased illness awareness through friendship with people of similar conditions and through involvement from their families (KH30, KH32) ***As KH13***
<u>Watching videos</u> KH36: Watching videos about psychology and counselling, and movies. KH37: Watching videos helps to focus on the present moment and prevents rumination.	Watching mental health educational videos and movies helps him focus at present and prevents rumination (KH36, KH37) ***As KH14***
<u>Counselling</u> KH44: Needs improved mental health treatment in Malaysia, i.e., to include counselling, and not focus on medication mainly.	Limited efficacy of counselling service received (KH44, KH45, KH46) ***As KH15***

KH45: Difficulty expressing self in counselling when done in Malay. KH46: Counsellor not attentive during conversation.	
<u>Mania</u> KH48: Mania helps in thinking, self-esteem, confidence, and learning. KH49: Mania, when it has exceeded its limit, causes mood instability, excessive spending, flight of ideas, and strong sexual desires. KH50: Realising that something is not right when mood becomes high and irritable.	Awareness that something is not right when the mood becomes high and irritable with its disturbing features (KH49, KH50) ***As KH16*** Mania is perceived as helping with thinking, self-esteem, confidence, and learning (KH48) ***As KH17***
<u>Medication</u> KH41: Experiencing sedation and drowsiness with medication. KH42: Medication helps control mood. KH43: Needs medication that does not cause excessive sedation.	Medication helps control mood but experiences sedation and drowsiness (KH41, KH42) ***As KH18*** Needs medication that does not cause excessive sedation (KH41, KH42, KH43) ***As KH19***
<u>Eating</u> KH15: Cope by eating as it helps improve mood. KH38: Travelling with the family to eat. KH39: Finding preferred food to eat after work.	Cope by eating preferred food as it helps to improve mood (KH15, KH39) ***As KH20*** Travelling with the family to eat (KH38) ***As KH21***
<u>Independent others</u> KH: Talking to others, watching videos, and eating sugary food help improve mood. KH 8: Not being able to multitask. KH52: Illness condition improves due to many experiences over time. KH16: Talking with others and getting their approval help improve mood. KH40: Seeking mental health support when mood is not good. KH47: Focussing and doing the things that he likes.	Not being able to multitask (KH8) ***As KH22*** Perceived illness condition improves due to many experiences over time (KH52) ***As KH23*** Talking to others and getting their approval motivates him (KH16) ***As KH24*** Seeking mental health support when not in a good mood (KH40) ***As KH25***

KH51: Preference for simple living to have less worry, and in return, helping illness condition.	Focussing and doing things which he likes (KH47) ***As KH26*** Prefers simple living to have less worry and help improve illness condition (KH51) ***As KH27***

Transcript 11 analysis

Initial codes	Current codes
Smoking WP1: Smoking cigarettes to relax from work-related stress. WP4: Smoking cigarettes is relaxing. WP33: Controlling cigarette and sleeping pills used. WP35: Increase smoking when stressed, anxious or worried.	Smoking cigarettes with control to relax from stress, anxiety or worry (WP1, WP4, WP33, WP35) ***As WP1***
Medication WP2: Taking medication. WP32: Depends on medication to help sleep. WP3: Taking medication helps maintaining sleep. WP6: Current medication regime helps maintain stable emotions. WP8: Experiencing excessive sedation with medication.	Taking medications to help stabilise emotions and maintain sleep but experiencing excessive sedation with it (WP2, WP3, WP6, WP8, WP32) ***As WP2***
Treatment WP10: Repeated medication changes by the doctors not benefitting. WP11: Initial medication regime discontinuation as their availability is beyond the treating doctors' control. WP7: Making a complain to the department after repeated intolerable medication changes which resulted inability to work. WP9: A doctor's advised to report the treatment issue with the department to resolve the issue. WP36: Speaking up with the doctor for his (and others') treatment needs. WP12: Treated by friendly doctors. WP13: Attending regular clinic follow-up.	Making a complaint to the department after being suggested by a doctor due to repeated ineffective medication changes, which resulted in him being unable to work (WP7, WP9, WP10, WP11) ***As WP3*** Treated by friendly doctors at his regular clinic follow-ups (WP12, WP13) ***As WP4*** Speaking up for himself and others about their treatment needs (WP36) ***As WP5***

<u>Work</u> WP31: Trouble sleeping due to working night shifts. WP34: Stress and tired from work. WP14: Work time turns the day and night upside down. WP37: Job requires standing for many hours. WP15: Job management is better when working with another colleague. WP16: Good relationship and a friend of his employer.	Strenuous work results in stress, tiredness, and trouble sleeping (WP14, WP31, WP34, WP37) ***As WP6*** Better job management when working together with another colleague and having a good relationship with the employer (WP15, WP16) ***As WP7***
<u>Exercise</u> WP17: Lacking time for physical exercises due to sleeping during the day and working at night. WP18: Occasionally engaging in climbing stairs as a form of exercise after work. WP40: Awareness of the importance of exercise for him. WP19: Frequency of exercise depends on mood. WP20: Exercise helps by gaining good, satisfied, and happy feelings afterwards.	Awareness of the importance of exercise for him as it helps improve his mood (WP20, WP40) ***As WP8*** Exercise after work depends on time availability and his mood (WP17, WP18, WP19) ***As WP9***
<u>Relationships</u> WP38: Relationship with wife and children not close. WP24: Good relationships with siblings and uncles. WP25: Being loved by his siblings and uncles. WP26: Being unconditionally forgiven of his past mistakes by his siblings and uncles.	Good relationships with siblings and uncles due to their unconditional love and forgiveness of his past mistakes (WP24, WP25, WP26) ***As WP10*** Not close with wife and children (WP38) ***As WP11***
<u>Mania</u> WP27: Taken medication, which resulted in mania. WP28: Self-awareness of being unwell and informing the doctor about it. WP29: Positive mania experience is perceived as improved cognitive function.	Perceived mania as improved cognition with many ideas and heightened ability (WP29, WP30, WP39) ***As WP12***

WP39: Writing down ideas developed during mania. WP30: Uncommon experience of being able to read an account's report during an illness state.	Informing his doctor when being unwell due to medication-induced mania (WP27, WP28) ***As WP13***
<u>Friends</u> WP22: Calling and talking to friends when the mood is bad, and receiving friends' advice. WP23: Only discloses mental health condition to close friends.	Selective disclosure of mental health condition to close friends (WP23) ***As WP14*** Talking to his friends who give him advice when his mood is bad (WP22) ***As WP15***
<u>Independent others</u> WP5: Listening to music helps with relaxation. WP21: Good air quality in the housing area.	Listening to music to relax (WP5) ***As WP16*** Good air quality in the housing area (WP21) ***As WP17***

<u>Transcript 12 analysis</u>

<u>Initial codes</u>	**<u>Current codes</u>**
<u>Sleep</u> SA1: Sleeping to help feel better. SA4: Sleeping in the daytime disturbs sleeping at night. SA5: Sleep helps to forget the problems for a while. SA6: Doing night shift to allow daytime sleep. SA7: Doing some adjustments to allow sleep at night without using sleeping pills. SA9: Sleeping when feeling depressed and take sleeping pills again at night to sleep. SA28: Poor sleep affects mood and work. SA55: Asking for sleeping pills to improve sleep and mood. SA56: Stopping sleeping pills as not to be dependent on it. SA58: Retaking sleeping pills as worried sleep problem might trigger mood disturbance again. SA31: Trying changing and adjusting routine by engaging with outdoor physical exercises to help in sleep.	Sleep to help feel better and forget problems for a while (SA1, SA5) ***As SA1*** Sleep when depressed but made some adjustments to allow sleep at night without sleeping pills by changing and adjusting routine and engaging in outdoor physical exercises (SA7, SA9, SA31) ***As SA2*** Stop taking sleeping pills so as not to be dependent on them but retake them due to concerns about poor sleep affecting her mood and work (SA28, SA55, SA56, SA58) ***As SA3*** Doing night shifts to allow daytime sleep (SA6) ***As SA4***

<u>Workplace-related</u> SA8: Work helps against feeling depressed. SA50: Friends at work being helpful. SA51: Limiting interaction with colleagues at workplace initially. SA14: Joining colleagues in outdoor physical exercises. SA15: Declaring and disclosing mental health condition at the workplace, and feeling okay about that. SA16: Work colleagues were aware and okay with her mental health issues. SA17: Seeking matron's help when having work-related problems. SA18: No workplace discrimination. SA19: Given equal work opportunities to perform. SA52: No other friends outside work.	Limiting interactions with colleagues at the workplace initially but later found them to be helpful (SA50, SA51) ***As SA5*** Joining colleagues in outdoor physical exercises (SA14) ***As SA6*** Being at work helps against feeling depressed (SA8) ***As SA7*** Disclosing mental health conditions at the workplace and receiving colleagues' support (SA15, SA16) ***As SA8*** No workplace discrimination or unequal work opportunities (SA18, SA19) ***As SA9*** Seeking matron's help when experiencing work problems (SA17) ***As SA10***
<u>Support</u> SA10: Feeling lonely as staying alone and no one to speak to at home. SA11: Returning to hometown to be with family almost every week. SA12: Seeing and informing siblings if unwell. SA49: Asking to stay with sibling until she's ok. SA13: Having someone to talk to when staying with siblings. SA27: Find friends or siblings to talk to and travel to hometown. SA47: Spending time with parents in hometown.	Returning to hometown to be with parents and family due to feeling lonely at home (SA10, SA11, SA47) ***As SA11*** Being with siblings and friends when unwell (SA12, SA13, SA27, SA49) ***As SA12***
<u>Social life</u> SA20: Limiting social circle. SA21: Being judged by someone not close or familiar. SA22: Interacting with someone familiar. SA23: Not talking to people who gossips about her. SA54: Not mixing with people to avoid being judged by others. SA24: Self-expression through writing and sharing discreetly in Facebook.	Limiting social circle with no other friends outside work and only interacting with familiar people due to a history of being judged by unfamiliar people (SA20, SA21, SA22, SA52) ***As SA13*** Not mixing with or talking to people who gossip to avoid being judged by others (SA23, SA54) ***As SA14***

SA25: Temporary deactivating Facebook account during a mental breakdown to avoid sharing emotionally driven information and prevent self-embarrassment. SA26: Avoiding Facebook when not feeling well.	Expressing self through writing and discreet sharing on Facebook but avoiding and temporarily deactivating it when unwell to avoid sharing emotionally driven information and to prevent self-embarrassment (SA24, SA25, SA26) ***As SA15***
<u>Treatment-related</u> SA53: Refusing doctor's advice for admission. SA29: Unsure if the treatment received is correct due to changing diagnosis. SA32: Different levels of interest from the doctors to explore personal problems. SA33: Not sharing concerns with the doctor if they are not interested in exploring the issues further. SA34: Doctor's interest in conversation, long waiting hours at the clinic affects mood and interest to talk with the doctor. SA35: Seeing a doctor for less than 15 minutes after hours of waiting.	Experiencing different levels of interest from doctors in exploring personal problems and not sharing with them if they are not interested (SA32, SA33) ***As SA16*** Doctor's interest in conversation and long wait hours but short consultation time affect mood and interest to talk with the doctor (SA34, SA35) ***As SA17*** Refusing doctor's advice for admission (SA53) ***As SA18*** Unsure if the treatment received is correct due to changing diagnosis (SA29) ***As SA19***
<u>Weight-related</u> SA57: Listening to doctor's advice to stop weight reduction medicine. SA41: Seeking help from a physician for weight management. SA38: Reducing diet intake despite liking to eat for weight management. SA42: Controlling diet intake to feel better.	Seeking help from a physician for weight management and listening to the doctor's advice to stop weight reduction medicine (SA41, SA57) ***As SA20*** Reducing and controlling diet despite liking to eat for weight management and to feel better (SA38, SA42) ***As SA21***
<u>Eating</u> SA2: Eating good food. SA39: Still regularly eating out at places with good food. SA40: Feeling happy when eating out with siblings at a good place. SA43: Used to binge-eat to feel happy.	Eating good food outside (SA39) ***As SA22*** Eating out at good places with siblings (S40) ***As SA23*** Binged eating to feel happy (SA43) ***As SA24***
<u>Watching movies</u> SA3: Watching movies.	

SA45: Watching movies at the cinema to feel better. SA46: Regular movie-watching in the cinema.	Regularly watching movies in the cinema to feel better (SA3, SA45, SA46) ***As SA25***
<u>Outdoor activities</u> SA28: Go for a holiday when not feeling well. SA36: Regular outdoor physical activities. SA37: Outdoor physical activities improve mood and help sleep better. SA44: Spending time outside to reduce time at home.	Doing regular outdoor physical activities and reducing time at home improve mood and sleep (SA36, SA37, SA44) ***As SA26*** Going for a holiday when not feeling well (SA28) ***As SA27***
<u>Independent others</u> SA30: Trying to identify and deal with own problems. SA48: Tidying house and doing other things to fill time.	Trying to identify and deal with own problems (SA30) ***As SA28*** Tidying house and doing other things to fill time (SA48) ***As SA29***

<u>Transcript 13 analysis</u>

Initial codes	**Current codes**
<u>Exercise</u> SP1: Using exercise to manage stress. SP50: Enjoys doing aerobics with music. SP4: Joining friends to do aerobic dance. SP5: Doing aerobic exercise in a public park. SP6: Not being able to do the aerobic exercise for a long time due to leg pain. SP7: Doing aerobic dance and then chatting with friends. SP8: Being with friends for light exercises at the park. SP51: Awareness of the importance of exercise for her. SP9: Engaging in regular physical exercise. SP10: Can't join aerobic activity because finding it difficult to wake up early. SP11: Aerobic exercise helps to relax. SP12: Doing simple exercise outside is better than staying at home and not doing anything.	Awareness of the importance of exercise for her (SP51) ***As SP1*** Enjoys aerobic exercise with music to manage stress and help her feel relaxed (SP1, SP11, SP50) ***As SP2*** Joining friends for an aerobic dance in a public park (SP4, SP5, SP7) ***As SP3*** Not able to do aerobic exercise due to leg pain and finding it difficult to wake early (SP6, SP10) ***As SP4*** Being with friends for regular light exercises at the park (SP8) ***As SP5*** Engaging in regular physical exercise (SP9) outside is better than staying at home doing nothing (SP9, SP12) ***As SP6***

SP13: Doing exercise at home with YouTube when can't do it outside.	Doing exercise at home with YouTube when can't do it outside (SP13) ***As SP7***
<u>Support</u> SP2: Finding other people to talk. SP16: Very few close friends due to limited interactions with younger counterparts in church. SP17: Sharing life issues with church pastor and husband. SP18: Husband takes good care and provides constant accompaniment during illness. SP19: Husband making sure about medication intake. SP21: Husband's preparing and making sure about medication intake. SP22: Pastor listens, understands, prays, and provides emotional support. SP52: Telling pastor when she's unwell. SP24: Church has been supportive despite not working there and provides monthly allowances to her and husband. SP28: Husband helps to drive her to the hospital and also to visit the elderly in the nursing homes. SP61: Needing husband to drive her around whenever she goes out. SP38: Going out shopping with husband helps to relax. SP48: Limited interaction with neighbours and difficulty asking for help if needed.	Talking and sharing life issues with the church pastor and her husband (SP2, SP17) ***As SP8*** Husband takes care of her, accompanies her, and drives her around, e.g., to the hospital, visiting the elderly, shopping (SP18, SP21, SP28, SP38, SP61) ***As SP9*** Husband makes sure of her medication intake (SP19) ***As SP10*** Telling the pastor, who listens, understands, prays, and provides emotional support when she's unwell (SP22, SP52) ***As SP11*** Limited interactions with younger counterparts in church neighbours have resulted in very few close friends and difficulty asking for help when needed (SP16, SP48) ***As SP12*** The church has been supportive despite not working there and provides monthly allowances for her and her husband (SP24) ***As SP13***
<u>Treatment-related</u> SP3: Being consistent with medication intake. SP20: Tendency to not take medication when well. SP56: Seeking treatment when not feeling good. SP31: Being self-aware and coming for earlier treatment due to feeling unwell. SP34: Worrying that the doctor may change medication and has to adapt to new medication again when receiving treatment. SP57: Hoping to see a Chinese doctor for better communication.	Being consistent with medication intake but with a tendency of poor adherence when well and aware and seeking early treatment when unwell (SP3, SP20, SP31, SP56, SP58) ***As SP14*** Requesting the doctor only to increase the medication dosage slowly to get used to it, and worry that the doctor might change the medication and the need to adapt to the new medicine again (SP34, SP41) ***As SP15*** Difficult to communicate with an Indian or a Malay doctor due to language barrier and

SP35: Difficulty communicating with an Indian or a Malay doctor due to language barrier. SP39: Talking privately with a doctor with a good treatment environment. SP40: Difficulty communicating with the doctor due to several doctors and patients in a room. SP41: Requesting the doctor to only increase the medication slowly so as to allow time to get used to it. SP58: Not adherent to medication as feeling well then. SP62: Not difficult coming for treatment.	the presence of other doctors and patients in the same room (SP35, SP40) ***As SP16*** Hoping to talk privately with a Chinese doctor in a suitable treatment environment (SP39, SP57) ***As SP17*** Not difficult coming for treatment (SP62) ***As SP18***
<u>Spiritual/Church-related</u> SP14: Listening to Christian worship songs when mood is low with pessimistic thinking mood to encourage self. SP15: Using God's Word to encourage self. SP25: Involvement of church in her life is helping her. SP26: Not having a small group in church and serving others rather than being served in church.	Using God's Word and Christian worship songs to encourage self when her mood is low with pessimistic thoughts (SP14, SP15) ***As SP19*** Involvement of the church in her life has helped her and in turn she helps to serve the people in the church (SP25, SP26) ***As SP20***
<u>Volunteering work</u> SP23: Stopping regular work and starting volunteer work as unable to withstand stress. SP27: Doing volunteer work makes her feel useful. SP29: Visiting the elderly in nursing homes is meaningful and makes her feel worthy. SP54: No one gives her stress. SP30: Only doing what she is capable of doing, and feeling useful.	Stopping regular work for volunteer work as being unable to withstand stress and doing what she is capable of, like visiting the elderly in nursing homes, makes her feel useful and worthy with no one gives her stress (SP23, SP27, SP29, SP30, SP54) ***As SP21***
<u>Husband (Other issues)</u> SP53: Encouraging husband who has depression. SP32: Looking after self to be well and care for her husband. SP33: Mutual care between husband and wife. SP44: Husband's mood condition affects her mood.	Encouraging her husband who has depression (SP53) ***As SP22*** Husband's condition causes her stress and affects her mood (SP44, SP46) ***As SP23***

SP46: Husband's condition causes stress. SP60: Asking the husband to let her leave his side to go out to prevent worsening of her condition. SP63: Hoping to be able to care for self and husband.	Looking after herself to be well and care for her husband, along with mutual care (SP32, SP33) ***As SP24*** Asking her husband to let her leave home for a while to prevent the worsening of her condition (SP60) ***As SP25*** Hoping that she could care for herself and her husband (SP63) ***As SP26***
<u>Independent others</u> SP55: Limited ability to deal with stress. SP36: Forcing self to exercise on days when motivation was low. SP37: Consoling self when being disappointed with self. SP42: Living in high rise building is not good due to suicidal thoughts when unwell. SP43: Learning about asking for help when unwell. SP59: Life stressors as reasons of illness relapse. SP45: Speaking out when there are issues. SP47: Being in nature, doing physical exercise, and meeting with friends helps with relaxation and improves sleep. SP49: Difficulty walking from the house to the bus station due to weak legs.	Forcing self to exercise during low motivation (SP36) ***As SP27*** Consoling self when disappointed with self (SP37) ***As SP28*** Limited ability to deal with stress as life stressors are reasons for illness relapses (SP55, SP59) ***As SP29*** Speaking out and asking for help when there are issues or being unwell (SP43, SP45) ***As SP30*** Living in a high-rise building is perceived as not suitable due to suicidal thoughts when unwell (SP42) ***As SP31*** Being in nature doing physical exercises and meeting with friends help with relaxation and improves sleep (SP47) ***As SP32*** Difficulty walking from the house to an uphill bus stop due to weak legs (SP49) ***As SP33***

<u>Transcript 14 analysis</u>

Initial codes	**Current codes**
<u>Religion-related</u> MA1: Praying and performing religious duties, and thinking about God. MA6: Observing prayer routine.	Observing prayer routines, performing religious duties, and saying God's name and prayers to relieve the burden and feel

MA7: Saying out God's name to relieve burden. MA9: Going to the mosque and feeling calmer there. MA48: Feeling calmer at mosque than at home, which helps in his praying. MA12: Practicing the prayers and feeling confident. MA13: Drinking and bathing into the religious water. MA14: Drinking religious water when can't sleep at night due to anxiety. MA15: Going to the mosque immediately if excessively stressed. MA16: No difficulty going to the mosque as it is nearby. MA35: Talking to friends at mosque about religious lessons.	confident (MA1, MA6, MA7, MA12) ***As MA1*** Going to the nearby mosque to pray, talk to friends about religious lessons, and when stressed, as it is perceived to be calmer there than at home (MA9, MA15, MA16, MA35, MA48) ***As MA2*** Drinking and bathing into religious water when anxious or stressed (MA13, MA14) ***As MA3***
<u>Support</u> MA10: Sharing problems with religious teacher. MA11: Religious teacher advising on what to do. MA17: Father giving frequent advice. MA19: Father's giving advice on stress reduction. MA20: Father's buying good food for the family. MA21: Limited support from siblings. MA22: Seldom staying at home because of limited siblings' support. MA23: Being close to parents. MA24: Father's buying health supplements and giving him advice. MA36: Not sharing personal problems with friends. MA40: Feeling stressed if staying at home. MA41: Neighbours with negative attitudes causing stress if staying at home. MA42: Neighbours tend to ask about personal matters, which he doesn't like. MA45: Important to have family support to overcome bipolar disorder. MA46: Not receiving support from siblings. MA47: No proper communication and interaction from siblings.	Sharing problems with religious teacher who gives advice on what to do (MA10, MA11) ***As MA4*** Being close to his parents, and his father frequently gives him advice and buy him supplements and good food for the family (MA17, MA19, MA20, MA24) ***As MA5*** Feeling stressed and seldom staying at home because of limited siblings' support (MA22, MA40) ***As MA6*** Limited siblings' support with no proper communication and interaction from them (MA21, MA46, MA47) ***As MA7*** Neighbours with negative attitudes and a tendency to ask about personal matters cause him stress (MA41, MA42) ***As MA8*** Family support is important to overcome bipolar disorder (MA45) ***As MA9***
<u>Treatment-related</u>	

MA8: Being taught by a doctor to take deep breaths when anxious. MA49: Taking medication as prescribed. MA25: Medication losing its efficacy. MA26: Doing own research on the Internet, reading magazines, and understanding from others about own medication. MA27: Stopping medication due to side effects, did not think of being illness, and not want to be dependent on medication. MA28: Stopping medication upon advice from others regarding the harmful effects of medication to health. MA29: Informing the doctor about side effects of the medication. MA50: Not telling doctor about stress as they tend to continue same treatment. MA30: Only tell the doctor if severe stress and can't sleep at night. MA31: Not telling the doctor as they only focus on medication and do not provide tips to deal with stress. MA32: Not difficult going to the hospital. MA43: Doctors should provide counselling and management tips about bipolar disorder instead of using medication.	Taking medication as prescribed but feels it has lost its efficacy, and stopping medication due to side effects, did not think of being ill at that time, not wanting to be dependent on them (MA25, MA27, MA49) ***As MA10*** Stopping medication upon the advice from others regarding the harmful effects of the medicines on health and informing the doctor about their side effects (MA28, MA29) ***As MA11*** Not tell the doctor about his stress unless it is severe and unable to sleep at night as they tend to focus on medication and do not provide tips to deal with stress, but one doctor taught him to take deep breaths when anxious (MA8, MA30, MA31, MA50) ***As MA12*** Doing personal research on the Internet, reading magazines, and understanding from others about his medication (MA26) ***As MA13*** Not difficult going to the hospital (MA32) ***As MA14*** Believes that doctors should provide counselling and tips about managing bipolar disorder instead of just using medication (MA43) ***As MA15***
<u>Work-related</u> MA33: Working helps in thinking. MA34: Current work allows living normally, maintaining health, earning money, and providing for the family.	Work helps his thinking, allows normal living, maintaining health, earning money, and providing for the family (MA33, MA34) ***As MA16***
<u>Exercise/Physical activity</u> MA5: Doing exercises. MA37: Doing physical exercises at a natural park and feeling no stress. MA38: Doing regular physical exercise. MA39: Doing exercise at the housing area.	Doing regular physical exercises (MA5, MA38) ***As MA17*** Physical exercises at a natural park and the housing area help relieve stress (MA37, MA39) ***As MA18***

Sleep MA18: Having difficulty sleeping and experiencing stress when spending too much time on social media. MA44: Being aware that sleep quality determines the occurrence of stress.	Having difficulty sleeping and experiencing stress when spending too much time on social media (MA18) ***As MA19*** Being aware that sleep quality determines the occurrence of stress (MA44) ***As MA20***
Independent others MA2: Taking deep breaths to self-calm. MA3: Busying self with activities. MA4: Meeting friends or doing some work. MA51: Many facilities near the housing area but not in the housing area where he lives MA52: Not understanding bipolar disorder in the beginning of illness.	Taking deep breaths to self-calm (MA2) ***As MA21*** Busying self with activities (MA3) ***As MA22*** Meeting friends or doing some work (MA4) ***As MA23*** Not many facilities in the housing area where he lives (MA51) ***As MA24*** Not understanding bipolar disorder at the beginning of the illness (MA52) ***As MA25***

Transcript 15 analysis

Initial codes	Current codes
Animals SS1: Spending time with cats. SS2: Feeding stray cats and dogs. SS9: Playing with pets makes her feel loved and appreciated.	Spending time playing with pets and feeding the stray cats and dogs make her feel loved and appreciated (SS1, SS2, SS9) ***As SS1***
Watching TV/movies SS3: Watching horror movies helps release stress. SS4: Watching cartoons related to childhood helps to feel peaceful. SS5: Not putting boundaries on what her watch made her peaceful and being herself. SS52: Watching movies allows her to feel and understand the life experiences of the characters in play.	Not putting boundaries on what she watches (e.g., horror movies, cartoons) helps her release stress and feel peaceful and allows her to understand the life experiences of others (SS3, SS4, SS5, SS52, SS53) ***As SS2*** Learning to cook for self and family from watching cooking programmes (SS59) ***As SS3***

SS53: Watching TV daily. SS59: Learning to cook for family and self from TV cooking programmes.	
<u>Driving</u> SS6: Driving. SS7: Using driving as an alternative to vacationing due to latter high cost as a means to deal with stress. SS8: Listening to music while driving provides the fun. SS54: Listening to songs while driving. SS55: Driving helps her feel as if she has escaped from home. SS56: Driving out and going for shopping and car wash are like therapy for her. SS60: Travelling brings happy feelings.	Use driving and listening to songs/music in the car to deal with stress and as an escape from home (SS6, SS7, SS8, SS54, SS55) ***As SS4*** Driving out, travelling, and going shopping and car wash is like therapy for her (SS56, SS60) ***As SS5***
<u>Support</u> SS11: Venting out to father. SS13: Sharing similar interests with sister. SS14: Sharing experiences with her sister, e.g., house chores, emotions, thoughts. SS15: Using sister's help to make her father understand about bipolar disorder. SS16: Sharing life issues with sister. SS17: Sister's advice helped her avoid self-injurious behaviour. SS18: Sister's advice made her reconsider regarding self-injurious behaviour. SS19: Giving self a chance to live after sister's advice. SS20: Late brother-in-law helped in business and took care of her sick cats when her mother refused to let sick cats stay at home. SS21: Brother-in-law's passing left a big impact on her. SS23: Not receiving close support from other siblings. SS24: Father and sister provide emotional and financial support. SS61: No close friends. SS62: Drawing a boundary between employer-employee relationship. SS63: Limited friendship experience as her friend is occupied with her own life.	Sharing interests, experiences, and life issues with her sister, who has helped her to avoid self-injurious behaviour and allowed her to continue living (SS13, SS14, SS16, SS17, SS18, SS19) ***As SS6*** Brother-in-law's passing left a big impact on her as he had helped her in business and taken care of her sick cats (SS20, SS21) ***As SS7*** Drawing a boundary on employer-employee relationship with no close friends and limited friendship experience (SS61, SS62, SS63) ***As SS8*** Venting out to her father and using her sister's help to make her father understand bipolar disorder and both provide support emotionally and financially (SS11, SS15, SS24) ***As SS9*** Not receiving close support from other siblings and no good relationship outside the family circle (SP23, SS65) ***As SS10***

SS65: No good relationship outside the family circle.	
<u>Mother-related</u> SS12: Being careful when talking to mother to avoid triggering or upsetting her. SS26: Relationship with mother strained due to the mother's preferential treatment of her children. SS27: Physical bonding with mother stopped after she refused to be touched due to OCD. SS28: Mother keeps stressing her about her unemployment. SS29: Mother took it lightly about her bipolar disorder. SS64: The mother does not like her to bring friends back home. SS30: Some family members take her illness lightly.	Strained relationship with her mother due to the mother's preferential treatment of her children and the mother's OCD which has made the mother not keen on bonding with her (SS26, SS27) ***As SS11*** Being careful when talking to her mother to avoid triggering the mother (SS12) ***As SS12*** Some family members and her mother take her bipolar disorder lightly (SS29, SS30) ***As SS13*** The mother keeps stressing her out about her unemployment (SS28, SS29, SS30) ***As SS14*** The mother does not like her bringing friends home (SS64) ***As SS15***
<u>Illness-related</u> SS25: Improved bipolar disorder condition. SS31: Improved illness control. SS32: Attributed better illness control to age and maturity.	Attributed better illness control and improved bipolar disorder condition due to age and maturity (SS25, SS31, SS32) ***As SS16***
<u>Sleep</u> SS35: Use sleep when couldn't think anymore. SS36: Sleep stops her from thinking a lot.	Using sleep to stop her from thinking a lot (SS35, SS36) ***As SS17***
<u>Treatment-related</u> SS37: Think that the 5th doctor was suitable for her and feel motivated to see the doctor. SS38: Not worrying when seeing the doctor. SS39: Needing consultant's advice. SS40: Doctor's bad attitude. SS41: Expensive medication. SS42: Feeling stressful as the doctors couldn't help her until she met the 5th doctor.	Feeling stressed with previous doctors with bad attitudes, which made her feel forced to take prescribed medication until she met the current doctor, who makes her feel motivated to improve herself that motivates her to wait until feeling improved before seeing the doctor as she does not want to disappoint the doctor (SS37, SS40, SS42, SS44, SS45, SS49) ***As SS18***

SS44: Doctor has made her wanting to improve self. SS45: Would wait until she feels improved before seeing the doctor as not wanting to disappoint them. SS46: Seeing the doctor helps her becomes better. SS47: Telling her doctor her issues. SS48: Doctor listens to her complaints and changes medicines accordingly. SS49: Feeling forced to take medication prescribed by her previous doctors. SS50: Being aware of own responsibility in her illness and treatment. SS68: Need money for illness treatment.	Needing a consultant's advice (SS39) ***As SS19*** Not worry when telling her doctor, who listens to her issues and adjusts her medication accordingly, which helps her become better (SS38, SS46, SS47, SS48) ***As SS20*** Need money for illness treatment due to expensive medication (SS41, SS68) ***As SS21*** Being aware of her responsibility for her illness and treatment (SS50) ***As SS22***
<u>Shopping</u> SS57: Shopping for things for the kitchen as a coping method for her. SS58: Changing shopping strategy from buying something wasteful to something useful.	Buying something useful for the kitchen helps her cope (SS57, SS58) ***As SS23***
<u>Aims</u> SS22: Finding ways to calm herself. SS33: Learning about letting certain things go. SS43: Needing to improve self. SS66: Need to reduce social anxiety. SS71: To have the ability to escape from a narcissist or a toxic person.	Find ways to calm herself (SS22) ***As SS24*** Learn about letting certain things go (SS33) ***As SS25*** Need to improve herself (S43) ***As SS26*** Need to reduce social anxiety and to have the ability to escape from a narcissist or a toxic person (SS66, SS71) ***As SS27***
<u>Independent others</u> SS67: Feeling being judged by the public and causes her to be anxious. SS69: Changing perception about how money is spent, and seeing health is more important now. SS70: Not feeling happy despite having a successful business. SS34: Keeping the issue in mind when being triggered.	Changing perceptions about how money is spent and seeing health is more important now as she has not been happy despite having a successful business (SS69, SS70) ***As SS28*** Feeling judged by the public causes her to be anxious (SS67) ***As SS29***

SS51: Being responsible for self and parents. SS10: Checking others' moods prior to interacting with them and adjust interaction accordingly.	Check on others' moods before interacting with them and adjust interactions accordingly (SS10, SS67) ***As SS30*** Being responsible for self and parents (SS51) ***As SS31*** Keeping the issue in mind when being triggered (SS34) ***As SS32***

5) Study Poster (Bahasa Malaysia version)

Health & Medicine | Lancaster University

Kami sedang menjalankan penyelidikan kesihatan mental untuk memahami pengalaman hidup individu yang mempunyai penyakit mental yang ketara dalam pengawalan kehidupan diri. Adakah anda ingin berkongsi pengalaman anda dengan kami?

Sumbangan anda kepada kajian ini akan membantu membangunkan pengetahuan baru dan program rawatan yang lebih baik yang memberi tumpuan kepada penyakit mental dan pengawalan kehidupan diri.

Jika anda bersetuju untuk mengambil bahagian, anda akan diberi slot masa sejam untuk ditemuramah. Yakinlah bahawa maklumat peribadi akan dirahsiakan dan respons temu ramah tidak dikenali.

Penyertaan anda adalah secara sukarela, tanpa insentif yang terlibat. Hidangan ringan akan disediakan semasa temu duga.

Anda boleh menghubungi penyelidik kajian ini untuk maklumat lanjut atau memaklumkan minat anda dalam projek ini.

Hubungi

Dr Leong Foo Weng

Nombor telefon: (pejabat)

Email: f.leong@lancaster.ac.uk

6) Participant Information Sheet (Bahasa Malaysia version)

Helaian Maklumat Pesakit

Kajian Kualitatif Berfokuskan Komuniti dalam Pengalaman Hidup Gangguan Bipolar Afektif di Kalangan Penduduk Malaysia: Memahami Pengawalan Kendiri dari Perspektif Daya Tahan Sosial Ekologi

Nama saya Leong Foo Weng. Saya seorang pakar psikiatri dan juga merupakan seorang pelajar pascasiswazah daripada Jabatan Penyelidikan Kesihatan (bahagian Kesihatan Mental) di Universiti Lancaster, United Kingdom. Kajian ini akan dijalankan di Malaysia, dan untuk bahagian projek ini (iaitu, temu bual untuk pengumpulan data), ia akan bermula dari 1 September 2023 hingga 31 Mac 2024.

Apakah kajian ini?

Kajian ini bertujuan untuk memahami pengalaman hidup individu yang mempunyai penyakit mental yang ketara dalam pengawalan kehidupan diri. Pemahaman yang mendalam mengenai bidang ini dapat membolehkan program kesihatan mental yang lebih baik dan pragmatik yang berfokuskan pengguna dilaksanakan.

Mengapa saya dijemput untuk kajian ini?

Anda dijemput kerana anda layak untuk mengambil bahagian dalam projek kajian ini. Jika anda memutuskan untuk mengambil bahagian dalam penyelidikan ini, anda akan menjadi salah seorang daripada kira-kira 30 peserta tempatan lain yang menyertainya.

Adakah saya perlu mengambil bahagian?

Penyertaan anda adalah secara sukarela. Terpulang kepada anda sama ada untuk mengambil bahagian dalam kajian ini atau tidak. Walau apapun keputusan anda tidak akan mempengaruhi rawatan kesihatan mental anda oleh pasukan perawat kesihatan mental di sini. Jika anda membuat keputusan untuk mengambil bahagian, anda akan terlebih dahulu dihubungi oleh saya untuk menetapkan tarikh temu janji yang kami berdua bersetuju. Temu janji itu dijangka berlaku pada hari bekerja antara 1 September 2023 dan 31 Mac 2024, apabila bahagian projek kajian ini berlangsung. Secara amnya, temujanji akan ditetapkan pada hari anda dijangka menghadiri semakan klinik biasa anda. Ini dilakukan supaya anda tidak perlu datang ke hospital hanya untuk temuduga melainkan anda bersetuju sebaliknya. Tiada bentuk alternatif untuk menjalankan temu duga ini (cth., temu bual telefon). Anda boleh memilih untuk tidak menyertai sekiranya bentuk temu duga tidak sesuai dengan anda pada masa ini.

Siapa yang membiayai kajian ini?

Ini adalah kajian persendirian dan tiada pembiayaan. Untuk makluman anda, tidak akan ada sebarang bentuk pembayaran, termasuk bayaran balik untuk penyertaan anda dalam kajian ini. Walau bagaimanapun, jamuan ringan akan dihidangkan semasa temu duga.

Apa yang perlu lakukan sekiranya saya mengambil bahagian?

Sekiranya anda memutuskan untuk mengambil bahagian, anda akan diminta untuk duduk dalam sesi temubual dengan saya yang mengambil masa kira-kira sejam. Sebelum memulakan temu bual, anda juga akan diminta untuk menandatangani satu borang persetujuan penyertaan untuk kajian ini. Topik perbincangan semasa temubual adalah mengenai isu-isu yang berkaitan dengan pengalaman anda dalam penyakit psikiatri semasa.

Adakah data saya boleh dikenal pasti?

Data peribadi anda dan juga data temubual akan dirahsiakan. Data peribadi anda akan disimpan secara berasingan daripada respons temubual anda. Rakaman audio yang dibuat semasa temubual akan dipindahkan ke folder selamat dalam komputer riba yang dilindungi oleh kata laluan, yang hanya dapat saya akses. Rakaman audio kemudiannya akan dipadamkan daripada perakam audio. Data sandaran akan disimpan dalam platform awan yang diluluskan Lancaster University (contohnya, Microsoft Teams). Sebaik sahaja data audio telah ditranskripsikan ke dalam data bertulis, yang pertama akan dipadamkan dari komputer riba manakala yang terakhir akan disandarkan di platform awan. Setelah projek PhD ini selesai dan diperiksa, rakaman audio akan dipadamkan dari platform awan.Semua data lain akan dipindahkan ke Lancaster University Publication and Research Electronic Repository (PURE) untuk penyimpanan. Tempoh penyimpanan data adalah sehingga 10 tahun setelah selesai projek penyelidikan.Selepas tempohnya, hanya data yang ditranskripsikan akan disimpan secara kekal di PURE. Data-data ini tidak akan diakses secara terbuka kerana ia mengandungi akaun mendalam peribadi pengalaman hidup dan oleh itu, mereka tidak dapat dirahsiakan sepenuhnya. Penerbitan hasil penyelidikan akan menamakan sumbangan individu kepada kajian dan mengecualikan butiran peribadi peserta kajian. Semua peranti yang digunakan untuk penyimpanan data akan disulitkan mengikut piawaian ISS Lancaster University.

Untuk maklumat anda, jika apa-apa yang dikatakan semasa temubual membuatkan saya berfikir bahawa anda atau orang lain berisiko berbahaya atau terlibat secara langsung dalam aktiviti haram, saya perlu memecahkan kerahsiaan dan bercakap dengan ahli kakitangan mengenai perkara ini dan melakukan apa yang wajar. Sekiranya sebegitu, saya akan memberitahu anda akan dindakan saya melakukan ini.

Apa yang akan berlaku kepada hasilnya?

Hasil penyelidikan akan dianalisis, diringkaskan, dan dilaporkan dalam tesis. Hasil kajian itu juga boleh dikemukakan kepada jurnal untuk penerbitan dan dibentangkan dalam seminar, mesyuarat saintifik atau persidangan.

Bolehkah saya menarik balik persetujuan saya dalam penyertaan kajian ini?

Anda layak untuk menarik diri daripada kajian semasa atau selepas temu duga. Sekiranya anda berhasrat untuk menarik diri selepas temu duga, anda akan diberi masa dua minggu untuk berbuat demikian. Dalam kes itu, sumbangan anda kepada kajian akan dialih keluar. Jika permintaan anda dibuat lebih daripada dua minggu selepas tarikh temu duga, pengeluaran data mungkin tidak dapat dilakukan jika ia telah dianalisis. Walau bagaimanapun, sumbangan anda akan dirahsiakan.

Adakah terdapat sebarang risiko?

Tiada risiko yang dijangkakan dengan menyertai kajian ini. Walau bagaimanapun, jika anda mengalami sebarang kesusahan selepas penyertaan, pakar psikiatri atas panggilan akan dirujuk untuk pengurusan selanjutnya. Anda juga digalakkan untuk menghubungi sumber yang disediakan di hujung helaian ini untuk mendapatkan sokongan kesihatan mental selanjutnya. Untuk makluman tuan/puan, tiada pampasan dalam apa jua bentuk sekiranya berlaku kejadian yang tidak diingini berkaitan penyertaan tuan/puan dalam projek kajian ini.

Adakah terdapat faedah untuk mengambil bahagian?

Walaupun anda mungkin mendapati penyertaan dalam kajian ini menarik, ia tidak mempunyai faedah secara langsung pada masa ini. Walau bagaimanapun, seperti yang dinyatakan di atas, penyertaan anda boleh memberi manfaat kepada pembangunan masa depan program rawatan kesihatan mental dan seterusnya kepada anda dan juga pengguna-pengguna lain.

Siapa yang telah menyemak projek ini?

Kajian ini telah disemak dan diluluskan oleh Jawatankuasa Etika Penyelidikan Fakulti Kesihatan dan Perubatan di Lancaster University dan Jawatankuasa Kajian dan Etika Perubatan (MREC) Kementerian Kesihatan Malaysia (KKM).

Di manakah saya boleh mendapatkan maklumat lanjut mengenai kajian ini jika saya memerlukannya?

Jika anda mempunyai sebarang soalan mengenai kajian ini, sila hubungi saya sebagai penyelidik utama kajian ini.
Penyelidik:

Dr Leong Foo Weng
Pelajar pascasiswazah,
Jabatan Penyelidikan Kesihatan (bahagian Kesihatan Mental)
Fakulti Kesihatan dan Perubatan Universiti Lancaster
Nombor talian: (pejabat)
Emel: f.leong@lancaster.ac.uk

Penyelia-penyelia kajian:

Profesor Steven Jones
Profesor Psikologi Klinikal
Pengarah Bersama Pusat Penyelidikan Kesihatan Mental Spektrum
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Emel: s.jones7@lancaster.ac.uk

Profesor Fiona Lobban
Profesor Psikologi Klinikal
Pengarah Bersama, Pusat Penyelidikan Kesihatan Mental Spektrum
Universiti Lancaster
Emel: f.lobban@lancaster.ac.uk

Aduan

Sekiranya anda ingin membuat aduan mengenai mana-mana aspek kajian ini dan tidak mahu bercakap dengan penyelidik, anda boleh menghubungi:

Medical Research and Ethics Committee (MREC)
Blok A, Kompleks Institut Kesihatan Negara (NIH),
No 1 Jalan Setia Murni U13/52,
Seksyen U13 Bandar Setia Alam,
40170 Shah Alam,
Selangor, Malaysia.
Telefon: +603 – 3362 8205
Email: mrecsec@moh.gov.my
Dan/Ataupun

Professor Bruce Hollingsworth
Director of Studies, Mental Health
Division of Health Research
Lancaster University
Lancaster
LA1 4YG
Email: b.hollingsworth@lancaster.ac.uk
Jika anda ingin menghubungi seseorang di luar PhD dalam Program Doktor Penyelidikan Kesihatan, anda juga boleh menghubungi:

Dr Laura Machin
Chair of Faculty of Health and Medicine- Research Ethics Committee
Faculty of Health and Medicine
(Lancaster Medical School)
Lancaster University
Lancaster
LA1 4YG
Email: l.machin@lancaster.ac.uk

Terima kasih kerana meluangkan masa untuk membaca helaian maklumat ini.

Sumber-sumber sekiranya mengalami tekanan

Sekiranya anda berasa tertekan sama ada akibat daripada mengambil bahagian dalam kajian ini atau pada masa akan datang, sumber-sumber berikut mungkin dapat membantu.

a) Befrienders Penang
Hotline: +6042815161 / +6042811108
Whatsapp : +601156997687
Email: pat@befpen.org

b) Befrienders Kuala Lumpur
Hotline: +60379568145
Email: sam@befrienders.org.my

c) Lifeline Association Malaysia
Hotline: +601131571495 / +60167201495
Email: counselling@lifeline.org.my

7) Informed Consent Form (Bahasa Malaysia version)

Borang Persetujuan

Tajuk kajian: **Kajian Kualitatif Berfokuskan Komuniti dalam Pengalaman Hidup Gangguan Bipolar Afektif di Kalangan Penduduk Malaysia: Memahami Pengawalan Kendiri dari Perspektif Daya Tahan Sosial Ekologi**

Kami bertanya sama ada anda ingin mengambil bahagian dalam projek penyelidikan yang bertujuan untuk memahami pengalaman individu dengan penyakit mental yang ketara dalam pengawalan kehidupan diri.

Sebelum anda bersetuju untuk mengambil bahagian dalam kajian ini, kami meminta anda membaca helaian maklumat peserta dan menandakan setiap kurungan di bawah dengan inisial anda jika anda bersetuju. Jika anda mempunyai sebarang pertanyaan atau pertanyaan sebelum menandatangani borang persetujuan, sila hubungi penyiasat utama, Leong Foo Weng.

Sila tandatangan ringkas untuk setiap kenyataan di bawah.

1. Saya mengesahkan bahawa saya telah membaca lembaran maklumat dan memahami sepenuhnya apa yang diharapkan daripada saya dalam kajian ini. [ ]

2. Saya mengesahkan bahawa saya telah berpeluang untuk bertanya apa-apa soalan dan persoalan saya telahpun dijawab. [ ]

3. Saya faham bahawa temubual dengan saya akan dirakam audio dan kemudian dijadikan transkrip bertulis tanpa nama. [ ]

4. Saya difahamkan rakaman audio akan disimpan sehingga projek penyelidikan dikaji. [ ]

5. Saya faham bahawa penyertaan saya adalah secara sukarela dan saya bebas untuk menarik diri pada bila-bila masa tanpa memberi apa-apa sebab, tanpa menjejaskan rawatan perubatan atau hak undang-undang saya. [ ]

6. Saya faham bahawa apabila data saya telah dimasukkan ke dalam tema dalam kajian, data tersebut mungkin tidak dapat ditarik balik. [ ]

7. Saya faham bahawa maklumat daripada temu bual saya akan dikumpulkan dengan maklum balas peserta lain, tanpa nama, dan boleh diterbitkan; semua langkah yang munasabah akan diambil untuk melindungi nama peserta yang terlibat dalam projek ini. [ ]

8. Saya bersetuju dengan maklumat dan petikan daripada temubual saya yang digunakan dalam laporan, persidangan dan acara latihan. [ ]

9. Saya faham bahawa penyelidik akan membincangkan data dengan penyelia mereka mengikut keperluan. [ ]

10. Saya faham bahawa apa-apa maklumat yang saya berikan akan kekal sulit dan tanpa nama melainkan jika difikirkan bahawa terdapat risiko bahaya kepada diri saya atau orang lain. Jikalau begitu, penyiasat utama akan/mungkin perlu berkongsi maklumat ini dengan penyelia penyelidikan mereka dan tindakan sewajarnya diambil. [ ]

11. Saya bersetuju dengan Lancaster University menyimpan transkripsi bertulis temubual selama 10 tahun selepas kajian itu selesai. [ ]

Saya bersetuju untuk mengambil bahagian dalam kajian di atas.

Nama peserta: _____

I/C nombor: _____

Umur: _____

Diagnosis psikiatri: _____

Kemasukan ke hospital sebelumnya (bilangan kali): _____

Tandatangan: _____

Tarikh: _____

Bahagian penyelidik

Saya mengesahkan bahawa maklumat penting mengenai kajian ini telah dimaklumkan, dan peserta telah diberi peluang untuk bertanya soalan yang telah dijawab dengan sebaik mungkin. Saya mengesahkan bahawa keputusan peserta untuk terlibat dalam kajian ini dibuat secara sukarela tanpa paksaan.

Nama penyelidik: _____

I/C nombor: _____

Tandatangan: _____

Tarikh: _____

Bahagian saksi

Nama: _____

I/C nombor: _____

Tandatangan: _____

Tarikh: _____

8) Ethics Approval from Lancaster University

Re: [Externall FHM-2022-2130-RECR-2 Ethics Approval from FREC

Leong, Foo Weng (Postgraduate Researcher) <f.leong@lancaster.ac.uk> 12 August 2024 at 21:14

To: "lamblfw@gmail.com'i<lamblfw@gmail.com>

From: donotreply@infonetica.net<donotreply@infonetica.net>
Sent: Thursday, 22 December,
2022 8:03 PM To: Leong, Foo
Weng (Postgraduate
Researcher)

Cc: Jones, Steven

Subject: [Externall FHM-2022-2130-RECR-2 Ethics Approval from FREC

This email originated outside the University. Check before clicking links or attachments.

Name: Foo Weng Leong

Supervisor: Steven Huntley Jones

Department: Health Research

FHM REC Reference: FHM-2022-2130-RECR-2

Title: A Community-Based Qualitative Study of Lived Experiences of Bipolar Affective Disorder in the Malaysian Population: Understanding Self-Regulation from the Perspective of Social Ecology of Resilience

Dear Dr Foo Weng Leong,

Thank you for submitting your ethics application in REAMS, Lancaster University's online ethics review system for research. The application was recommended for approval by the FHM Research Ethics Committee, and on behalf of the Committee, I can confirm that approval has been granted for this application.

As Principal Investigator/Co-lnvestigator your responsibilities include:

- ensuring that (where applicable) all the necessary legal and regulatory requirements in order to conduct the research are met, and the necessary licences and approvals have been obtained.

- reporting any ethics-related issues that occur during the course of the research or arising from the research to the Research Ethics Offlcer at the email address below (e.g. unforeseen ethical issues, complaints about the conduct of the research, adverse reactions such as extreme distress),

-- submitting any changes to your application, including in your participant facing materials (see attached amendment guidance).

Please keep a copy of this email for your records. Please contact me if you have any queries or require further information,

Yours sincerely,

Dr Laura Machin

Chair of the Faculty of Health and Medicine Research Ethics Committee
fhmresearchsupport@lancastec.ac.uk

Letter.pdf

-2.3 118K

https://mail.google.com/mail/u/0/?ik=09ca466610&view=pt&search=all&permmsgid=msg-f:1807187684270479753&dsqt=1
&simpl=msg-f:1807187

9) Ethics Approval from the Ministry of Health, Malaysia

JAWATANKUASA ETIKA & PENYELIDIKAN PERUBATAN
(*MEDICAL RESEARCH & ETHICS COMMITTEE*)
KEMENTERIAN KESIHATAN MALAYSIA
MINISTRY OF HEALTH MALAYSIA
Kompleks Institut Kesihatan Negara (NIH)
No.1, Persiaran Setia Murni U13/52,
Seksyen U13 Setia Alam,
40170 Shah Alam, Selangor. Tel.: +(6)03-33628888/ 33628205

Ruj.Kami/ *Ref.* : **23-01576-WBW**
Tarikh/ *Date* : **28-07-2023**

LEONG FOO WENG
LANCASTER UNIVERSITY

Dato'/ Dr/ Tuan/ Puan,

SURAT KELULUSAN ETIKA/ *LETTER OF ETHICAL APPROVAL*:

NMRR ID-23-01576-WBW (IIR)

A COMMUNITY-FOCUSSED QUALITATIVE STUDY OF LIVED EXPERIENCES OF BIPOLAR AFFECTIVE DISORDER IN THE MALAYSIAN POPULATION: UNDERSTANDING SELFREGULATION FROM THE PERSPECTIVE OF SOCIAL ECOLOGY OF RESILIENCE

Dengan hormatnya perkara di atas adalah dirujuk.

This letter is made in reference to the matter above.

2. Bersama dengan surat ini dilampirkan surat kelulusan saintifik dan etika bagi projek ini. Segala rekod dan data subjek adalah SULIT dan hanya digunakan untuk tujuan kajian dan semua isu serta prosedur mengenai *data confidentiality* mesti dipatuhi. Kebenaran daripada Pengarah Hospital / Institusi di mana kajian akan dijalankan mesti diperolehi terlebih dahulu sebelum kajian dijalankan. Dato'/ Tuan/ Puan perlu akur dan mematuhi keputusan tersebut dan undang-undang lain yang berkaitan.

*The Medical Research and Ethics Committee (MREC), Ministry of Health Malaysia (MOH) has provided ethical approval for this study. Please take note that all records and data are to be kept strictly **CONFIDENTIAL** and can only be used for the purpose of this study. All precautions are be taken to maintain data confidentiality. Permission from the District Health Officer / Hospital Administrator/ Hospital Director and all relevant heads of*

departments /units where the study will be carried out must be obtained prior to the study. You are required to follow and comply with their decision and all other relevant regulations.

3. Penyelidik- penyelidik dan lokasi penyelidikan yang terlibat ialah:

The investigators and sites involved in this study are:

Hospital Pulau Pinang

Leong Foo Weng (Penyelidik Utama/ *Principal Investigator*)

…/4-

4. Dokumen- dokumen kajian berikut telah diterima dan disemak dengan merujuk kepada kajian di atas:

The following study documents have been received and reviewed with reference to the above study:

Dokumen- dokumen yang diterima dan disemak dengan merujuk kepada kajian di atas:

Documents received and reviewed with reference to the above study:

1. Surat iringan kepada JEPP
Cover letter to MREC
(Versi/ *Version* 2, bertarikh/ *dated* 16-07-2023)

2. Pengisytiharan Konflik Kepentingan
Declaration of Conflict of Interest (COI)
(Versi/ *Version* 1, bertarikh/ *dated* 24-12-2022)

3. Protokol
Protocol
(Versi/ *Version* 3, bertarikh/ *dated* 16-07-2023)

4. Versi Bahasa Inggeris/ *English Version*:
Lembaran Maklumat Peserta & Borang Persetujuan
Participant Information Sheet & Informed Consent Form
(Versi/ *Version* 3, bertarikh/ *dated* 16-07-2023)

5. Versi Bahasa Melayu/ *Malay Version*:
Lembaran Maklumat Peserta & Borang Persetujuan
Participant Information Sheet & Informed Consent Form
(Versi/ *Version* 3, bertarikh/ *dated* 16-07-2023)

6. Garis Panduan Temuduga
Interview Guideline
(Versi/ *Version* 1, bertarikh/ *dated* 30-11-2022)

7. Carta *Gantt*
Gantt Chart
(Versi/ *Version* 3, bertarikh/ *dated* 16-07-2023)

8. IA-HOD-IA & CV:
   - Leong Foo Weng

5. Adalah dimaklumkan bahawa kelulusan ini adalah sah sehingga **27-07-2024**. Tuan/ Puan perlu menghantar dokumen-dokumen seperti berikut selepas mendapat kelulusan etika. Borang-borang berkaitan boleh dimuat turun daripada laman web *National Medical Research Registry (NMRR)*.

*Please note that the approval is valid until **27-07-2024**.The following are to be reported upon receiving ethical approval. Required forms can be obtained from the National Medical Research Registry (NMRR) website.*

i. ***Continuing Review Form*** harus dihantar kepada JEPP selewat-lewatnya dalam tempoh 2 bulan (60 hari) sebelum tamat tempoh kelulusan ini bagi memperbaharui kelulusan etika.

Continuing Review Form *has to be submitted to MREC within 2 months (60 days) prior to the expiry of ethical approval.*

ii. ***Study Final Report*** harus dihantar kepada JEPP pada penghujung kajian.

Study Final Report *has to be submitted to MREC upon study completion.*

iii. Mendapat kelulusan etika sekiranya terdapat **pindaan ke atas sebarang dokumen kajian/ lokasi kajian/ penyelidik**. Pihak JEPP mempunyai hak untuk menarik balik kelulusan etika sekiranya terdapat perubahan dokumen kajian yang tidak diisytiharkan.

Ethical approval is required in the case of ***amendments/ changes*** *to the* ***study documents/ study sites/ study team****. MREC reserves the right to withdraw ethical approval if changes to study documents are not completely declared.*

iv. **Kajian berkenaan intervensi klinikal sahaja:** Laporan mengenai ***all Serious Adverse Events (SAEs), Suspected Unexpected Serious Adverse Reaction (SUSARs*****)** dan ***Protocol Deviation/Violation*** di lokasi kajian yang diluluskan oleh JEPP jika berkenaan. *SAE* perlu dilaporkan dalam tempoh 15 hari kalender dari kesedaran kejadian (*awareness of event)* oleh penyelidik. Laporan awal *SUSAR* perlu dikemukakan seawal mungkin tapi tidak melewati 7 hari calendar dari kesedaran kejadian oleh penyelidik, disusuli dengan laporan lengkap dalam tempoh tambahan 8 hari kalender.

Applicable for Clinical interventional Studies only: *Report occurrences of* ***all Serious Adverse Events (SAEs), Suspected Unexpected Serious Adverse Reaction (SUSARs)*** *and* ***Protocol Deviation/Violation*** *at all MREC approved sites to MREC. SAEs are to be reported within 15 calendar days from awareness of event by investigator. Initial report of SUSARs are to be reported as soon as possible but not later than 7 calendar days from awareness of event by investigator, followed by a complete report within 8 additional calendar days.*

6. Bilangan **subjek/ pesakit/ responden** yang akan terlibat dalam kajian ini di Malaysia adalah seramai **30 orang**.

There will be ***30 subjects/ patients/ respondents*** *involved in this study within Malaysia.*

7. Sila ambil maklum bahawa sebarang urusan surat-menyurat berkaitan dengan penyelidikan ini haruslah dinyatakan nombor rujukan surat ini untuk melicinkan urusan yang berkaitan.

Please take note that the reference number of this letter must be stated in all future correspondence related to this study to facilitate the administrative processes.

Jawatankuasa Etika & Penyelidikan Perubatan, Kementerian Kesihatan Malaysia, beroperasi mengikut *Council for Harmonization of Technical Requirements for Pharmaceuticals for Human Use (ICH)*. Mana-mana ahli JEPP yang terlibat dalam kajian/ projek yang dinilai tidak akan mengambil bahagian dalam kelulusan kajian/ projek.

The Medical Research & Ethics Committee, Ministry of Health Malaysia, operates in accordance to the International Council for Harmonization of Technical Requirements

for Pharmaceuticals for Human Use (ICH). Any member of the MREC who is involved in the study/ project under review will not participate in the approval of the study/ project.

Lokasi kajian/ *Project Sites*:
HOSPITAL PULAU PINANG

Keputusan Jawatankuasa Etika & Penyelidikan Perubatan/
Decision by Medical Research & Ethics Committee:
( ) Lulus/ *Approved*
( ) Tidak lulus/ *Disapproved*

Tarikh Kelulusan Etika/ *Date of Ethical Approval*: **28-07-2023**

Sekian terima kasih.
Thank you.

"MALAYSIA MADANI"

"BERKHIDMAT UNTUK NEGARA"

Saya yang menjalankan amanah,
I who carry out the trust,

.....
DR. NURAIN BINTI MOHD NOOR
Pengerusi/ *Chairperson*
Jawatankuasa Etika & Penyelidikan Perubatan/ *Medical Research & Ethics Committee*
Kementerian Kesihatan Malaysia/ *Ministry of Health Malaysia*
(No. MPM/ *MMC No*: 31576)