Internalised stigma in mental health: an investigation of the role of attachment style

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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

This thesis examines the role of adult attachment style on the internalisation of stigma amongst adults affected by mental health problems in the United Kingdom. A systematic review, completed for this thesis, on the role of social and relational factors in internalised stigma found strongest evidence for a negative association between social support and internalised stigma. Just one eligible study considered the role of attachment style. In the empirical study, a transdiagnostic sample with experience of recent secondary mental health service use (n = 122) completed an online cross-sectional survey with measures of internalised and perceived public stigma, adult attachment style, self-esteem, mood and functioning. Correlation analysis tested whether internalised stigma and perceived public stigma were significantly positively correlated (hypothesis one). Hierarchical multiple regression tested whether anxious and avoidant attachment styles were positively associated with a significant amount of variance in internalised stigma when controlling for other variables (hypotheses two and three). Regression-based moderation analysis tested whether the relationship between perceived public stigma and internalised stigma was moderated by anxious and avoidant attachment styles (hypotheses four and five). Results indicated that internalised stigma, perceived public stigma and insecure attachment were common in this sample. Internalised stigma was positively associated with perceived public stigma but neither anxious or avoidant attachment were associated with a significant amount of variance in internalised stigma when controlling for other variables. Similarly, no moderating effect on the relationship between perceived public stigma and internalised stigma was found for insecure attachment. Limitations, which may have contributed towards the failure to find some predicted effects, are discussed. Implications for policy and practice are also discussed

and recommendations are made for future research. It is concluded that despite these mixed results further research on the role of attachment style in internalised stigma is warranted.

TABLE OF CONTENTS

TABLES

FIGURES

1. INTRODUCTION

1.1.Conceptualising mental health problems

Mental health problems can be understood as the absence of what the World Health Organization (2014) define as "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community." Globally around 30% of people will experience a mental health problem at some point in their life (Steel et al. 2014) and five of the top twenty causes of global burden of disease are attributable to mental health problems (Global Burden of Disease Study 2013 Collaborators 2013).

There are three main models which influence the understanding of mental health problems and the responses to those problems (Pilgrim 2002). The biological model suggests that it is our biology which determines our behaviour and that our mental health is primarily biologically predetermined by our genes. The primary treatment response from this perspective is psychiatric medication. The psychological perspective suggests that our mental health is determined by psychological and emotional responses to life experiences. Proponents argue that through psychological talking-based treatment it is possible to change learned behaviours and to reduce distress. A social model of mental health proposes that it is primarily our social circumstances and environment which determine our mental health. These determinants include our family, socioeconomic status, gender, ethnicity and sexuality. Over the past twenty years there has also been an increasing emphasis on recognising the importance of adverse childhood experiences and other forms of psychological trauma as contributory to the later development of mental health problems (Sweeney et al. 2016).

While there is much debate between proponents of different models of mental health it is common for people to pragmatically adopt a 'biopsychosocial' model in recognition of the complexity of mental health experiences (Nassir Ghaemi 2009). This assumes a complex interplay between biological, psychological and social aspects in determining mental health

problems and our responses to those problems (Engel 1977) and it is this stance, which is adopted in the current study.

1.2.Stigma associated with mental health problems

Sociologist, Erving Goffman (1963) brought the concept of social stigma to public attention. He described it as the shame people feel when they fail to live up to others' standards. This occurs, he suggested, where people have some personal attribute that is discredited by the society in which they live. This seminal book led to a profusion of interest in the concept of stigma and its effects on different marginalised groups, including people affected by mental health problems (Link & Phelan 2001). It also led to criticism that the concept was too vaguely defined, which encouraged Link & Phelan (2001) to clarify that stigma occurs where there is the co-occurrence of its contributory elements: labelling, stereotyping, separation, status loss, and discrimination. They expanded the concept by suggesting that for these elements of stigmatisation to occur, power must be exercised by members of the non-stigmatised group over the stigmatised group. Whatever the debates on the definition of stigma the concept has become firmly connected with the experience of mental health problems.

Stigma associated with experiencing mental health issues is generally divided into three domains; public/social, structural and internalised stigma (Livingston & Boyd 2010), which are summarised in Table 1.1. Public stigma relates to the attitudes and behaviours of the majority population towards people experiencing mental health issues.

Table 1.1 Stigma domains

Stigma	The shame people feel when they fail to live up to others' standards. This occurs where people have some personal attribute that is discredited by the society in which they live (Goffman 1963).
Public stigma	Negative beliefs (stereotypes), agreement with those beliefs (prejudice) and associated negative behavioural responses (discrimination) towards people affected by mental health problems by the general public (Kondrat 2012; Wood et al. 2016b).
Perceived public stigma	The perception of people affected by mental health problems of stigmatising attitudes and behaviours held towards them by the general public (Link 1987). Distinct from, but contributory towards, internalised stigma (Corrigan & Watson 2002), meaning the extent to which perceived public stigma negatively affects people is variable.
Structural stigma	Policies and practices of public or private bodies which intentionally or unintentionally restrict opportunities for, or discriminate against, people affected by mental health problems (Corrigan et al. 2004).
Internalised stigma	Relates to the process whereby people internalise stigma that exists in wider society towards people affected by mental health problems. It has been described as the "psychological point of impact of societal stigma on people with mental illness" (Boyd, Otilingham & DeForge 2014, p17). Is believed to be contingent upon, but less common than, perceived public stigma (Brohan et al. 2010a; Vogel et al. 2013).

Public stigma in mental health comprises negative beliefs (stereotypes), agreement with those beliefs (prejudice) and associated negative behavioural responses (discrimination) towards people affected by mental health problems by the general public (Wood et al. 2016b). Public stigma iterates in a variety of ways, which are attitudinal and behavioural. These include a disproportionately enhanced perception of dangerousness or untrustworthiness, excessive pessimism for recovery and a tendency to blame people for their mental health problems (Stuart, Arboleda-Florez & Sartorius 2012). Public stigma connects with a general sense of 'differentness' that can fuel a desire for social distance from people affected by mental health problems (Corrigan et al. 2015) and may be used to justify the separation of the healthy 'us'

from the mentally unwell 'them' (Link & Phelan 2001). Surveys of people affected by mental health problems consistently find that high numbers report problems as a result of public stigma. For example, one survey found that nine out of ten people reported that stigma and discrimination had a negative impact on their lives in family, neighbourhood, work and mental health service settings (Time to Change, 2008). A review of qualitative evidence found that for people with experiences of psychosis stigma is caused and maintained within a complex multi-layered social system at individual, family, community and societal levels (Wood et al. 2014).

Public stigma has been shown to have a variety of negative effects for people affected by mental health problems. These include reduced help seeking (Clement et al. 2015) and social isolation (Thornicroft et al. 2009) along with a reduction in employment opportunities (Brohan & Thornicroft 2010) and the pursuit of other life goals (Corrigan et al. 2015). Stigmatising attitudes are also argued to be contributory towards a global disparity between physical and mental health services and for an underestimation of the mental health related global burden of disease (Vigo, Thornicroft & Atun 2016). A review and meta-analysis of research on public attitudes to mental health found that while there had been an improvement in mental health literacy and an increased acceptance of the need for professional help, there had been no accompanying improvement in attitudes towards people affected by mental health problems (Schomerus et al. 2012). This lack of improvement in public attitudes has also been seen in a series of surveys in Scotland, where particular challenges were highlighted in relation to views of people with experiences of psychosis (Reid, Hinchliffe & Waterton 2014). More encouragingly public attitude surveys in England over a six year period have shown a marked reduction in stigmatising attitudes towards people affected by mental health problems (TNS BMRB 2015) and these improvements may be attributable to the Time to Change anti-stigma campaign (Evans-Lacko et al. 2014). Efforts to reduce public stigma associated with mental health problems are widespread internationally (Stuart, Arboleda-Florez & Sartorius

2012) with strongest evidence for interventions that involve direct contact with people affected by mental health problems (Corrigan et al. 2012; Thornicroft et al. 2016).

Perceived public stigma describes the awareness of people affected by mental health problems of stigmatising and stereotyped views held towards them by the general public (Link 1987). It is distinct from, but contributory towards, internalised stigma (Corrigan & Watson 2002), meaning the extent to which perceived public stigma negatively affects people is variable.

Structural stigma relates to the policies and practices of public or private bodies which intentionally or unintentionally restrict opportunities for, or discriminate against, people affected by mental health problems (Corrigan et al. 2004). For example, where an organisations' employment practices have a specific and negative effect on employees with mental health problems.

Internalised stigma, which is the focus of this research, is also commonly referred to as self-stigma. It relates to the process whereby people internalise negative attitudes that exist in wider society towards people affected by mental health problems. In other words, they adopt these negative attitudes even though they are part of the stigmatised group. For example, if there is a general public perception that people affected by bipolar disorder will never recover then that belief may become internalised by someone on receipt of that diagnosis, to their detriment. Logically this suggests that where a society holds less stigmatising views towards people affected by mental health problems then internalised stigma will be less prevalent. This study adopts the definition of internalised stigma as the "psychological point of impact of societal stigma on people with mental illness" (Boyd, Otilingham & DeForge 2014, p17).

While all forms of stigma have been associated with negative outcomes the focus of this thesis is internalised stigma. Concentrating on this aspect of mental health stigma was stimulated by a number of factors. These include a general lack of consensus in the literature on the processes which underpin the internalisation of stigma and evidence that some but not all people living with mental health problems are negatively affected by it. This suggests there is

the possibility to contribute towards an improved understanding of the concept and its determinants, which could ultimately lead to the improved identification of people most at risk from its negative effects.

1.3.Critical perspectives

While stigma associated with mental health problems receives significant attention, both in terms of policy interventions and public discourse (Stuart, Arboleda-Florez & Sartorius 2012; Thornicroft et al. 2016), critics suggest that our understanding of the concept can be simplistic and overly narrow (Manzo 2004; Holley et al. 2012; Tyler 2015; Pescosolido & Martin 2015). This has led to an array of social issues being linked to stigma in the absence of critical analysis of the complex social processes involved (Prior et al. 2003; Manzo 2004). For example, Prior and colleagues (2003) showed that blaming stigma for a reluctance to disclose mental health problems to medical professionals was wholly inadequate, arguing that stigma as a concept may be at risk of "obscuring as much as it enlightens" (Prior et al. 2003, p.2192).

While Goffman (1963) identified that stigma operated in part as a means of social control, a point later re-emphasised by Link and Phelan (2001), research has focused primarily on underpinning individual level experiences and cognitive processes (Holley et al. 2012), possibly because of a general shift from a sociological to psychological research (Tyler 2016; Pescosolido & Martin 2015). As a result, commentators have called for an increased emphasis on power and social justice in stigma research and in wider efforts to reduce stigma (Link & Phelan 2001; Holley et al. 2012; Corrigan et al. 2005). This suggests a stronger emphasis on structural and organisational processes that perpetuate inequalities for people affected by mental health problems, as well as an increased recognition of the intersectionality of stigma (i.e. interwoven injustices linked to, for example, ethnicity, sexuality and poverty: Corrigan et al. 2005). Holley and colleagues (2012) go further suggesting the need for a critical anti-oppression approach, which is informed by an awareness of the privilege that separates people on the basis of mental health, and which may have contributed towards an individualistic focus in stigma research.

An emphasis in efforts to reduce stigma on changing public attitudes, while failing to adequately address social injustices that perpetuate stigma and discrimination, may only be partially effective (Corrigan et al. 2005). There is also increasing evidence that well-intentioned efforts to reduce stigma can in fact have detrimental effects (Stuart 2016). For example, approaches which are based on sharing biomedical descriptions of mental health problems as *illnesses like any other* (Read et al 2006) have been shown to be associated with increased perceptions of dangerousness, desire for social distance (Read et al. 2006; Read and Harré 2001), pity (Corrigan et al. 2001) and an increase in pessimism for recovery (Phelan, Cruz-Rojas & Reiff 2002).

Given the internalisation of stigma is in part contingent upon the perception of public stigma (Link 1987; Corrigan & Watson 2002; Corrigan, Watson & Barr 2006; Boyd Ritsher, Otilingam & Grajales 2003) all of these criticisms are worthy of consideration in our understanding of internalised stigma, perhaps most notably an overemphasis on researching individual level cognitive processes (Holley et al. 2012). Interventions to challenge internalised stigma in individuals affected have become increasingly widespread (Wood et al. 2016b; Mittal et al. 2012; Griffiths et al. 2014). With this increase in interest comes the risk that interventions seek to 'fix a problem' in the very people who are victims of public ignorance and prejudice? Consequently, Wood, Byrne and Morrison (2017) emphasise the urgency of balancing the development of internalised stigma interventions with effective efforts to address stigma at societal level. Manzo (2004) suggests the socially constructed nature of both internalized stigma and associated psychosocial variables means they are impossible to define absolutely and have potentially interconnected elements. Consequently, it has been suggested that greater attention be paid to disentangling the relationships between psychosocial elements and internalized stigma (Livingston & Boyd, 2010).

1.4.Internalised stigma

Internalised stigma can lead to a range of negative consequences, which can hinder recovery (Warner 2010). These include social exclusion and isolation (Watson et al. 2007), a

diminished sense of identity and self-esteem (Yanos, Roe & Lysaker 2010; Livingston & Boyd 2010), reduced help seeking (Clement et al. 2015; Held & Owens 2012; Lannin et al. 2015), and a reduction in goal orientation (Corrigan, Larson & Rüsch 2009). Level and duration of psychiatric impairment, and the consequent negative impact on social functioning also appear to play some part in the internalisation of stigma (Lysaker et al. 2007; Switaj et al. 2009; Cerit et al. 2012). Internalised stigma is also connected with greater symptom severity (Livingston & Boyd 2010), including depression (Switaj et al. 2014; Sibitz et al. 2011a).

Self-esteem is the psychosocial variable most commonly identified as being relevant to internalised stigma (Livingston & Boyd 2010). The relationship between self-esteem and internalised stigma remains when controlling for depression (Rüsch at al. 2006), which may co-occur with, but is distinct from, internalised stigma (Boyd-Ritsher, Otilingam, & Grajales 2003). Link and colleagues (2001) found that while self-esteem was predicted by stigma at baseline, self-esteem did not predict stigma at follow up. Others suggest internalised stigma may exist in a negative self-perpetuating cycle involving self-esteem and self-efficacy, leading to a reduction in self-set life goals (Corrigan, Larson & Rüsch, 2009). In this model empowerment is argued to be the obverse of internalized stigma, offering some potential indication of why internalized stigma is not universally experienced (Corrigan, Larson & Rüsch, 2009).

It has been suggested that aspects of personality may determine the internalisation of stigma (Margetić et al. 2010), while social support and networks have been consistently shown to be negatively associated with internalised stigma (Sibitz et al. 2011a; Chronister, Chou & Liao, 2013). A number of studies have suggested that internalised stigma plays a role in determining other outcomes. For example, Hasson-Ohayon and colleagues (2014) found that internalised stigma mediated the relationship between self-clarity, which has been defined as consistency of self-belief (Bigler, Neimeyer & Brown 2001), and recovery. This effect may be through a buffering effect of self-clarity against public stigma (Noyman-Veksler et al. 2013)

Another construct, which has been found to connect with both self-clarity (Hasson-Ohayon et al. 2016) and internalised stigma (Lysaker, Roe & Yanos 2007; Staring et al. 2009; Ehrlich-Ben Or et al. 2013), potentially in combination (Hasson-Ohayon et al. 2016), is insight. Insight, which refers to awareness and acceptance of a variety of aspects of mental health problems including an understanding of symptoms, the need for treatment and an awareness of the implications of psychiatric problems (Hasson-Ohayon et al. 2016), has traditionally been considered an important contributor toward recovery but long-term evidence to support this assumption is unclear (Lincoln, Lüllmann & Rief 2007). Insight has also been associated with negative outcomes (Barrett et al. 2010; Hasson-Ohayon et al. 2009).

It has been suggested that the relationship between insight and internalised stigma is mediated by shame proneness (Hasson-Ohayon et al. 2012) and there is evidence to suggest that insight and internalised stigma work in combination to determine outcomes (Lysaker, Roe & Yanos 2007; Staring et al. 2009; Ehrlich-Ben Or et al. 2013). For example, Lysaker and colleagues (2007) showed in a relatively small cluster analysis that a group with high insight and moderate internalised had significantly lower levels of hope and self-esteem when compared to two other groups (one with low insight and mild internalised stigma and the other with high insight and low stigma). Ehrlich-Ben Or and colleagues (2013) also found that people with high insight who had not internalised stigma had better outcomes than people with high insight and even moderate internalised stigma.

Levels of internalised stigma are generally stable over time in individuals (Lysaker et al. 2012) and are positively associated with societal levels of public stigma (Evans-Lacko et al. 2012). In other words, if a society holds more stigmatising views of people affected by mental health problems, those same people are more likely to experience internalised stigma. However, some evidence suggests a complicated relationship between directly experienced stigma and discrimination and the internalisation of stigma. Lysaker and colleagues (2012) found that while a tendency to personally endorse negative societal beliefs towards people affected by mental health problems was concurrently associated with directly experienced

stigma, this same relationship did not exist over time. This may suggest internalised stigma can persist within a person's sense of self for some time after exposure to the stigmatising beliefs or behaviours of other people that led to it in the first place.

Internalised stigma is also contingent upon, but less common than, the perception of public stigma. For example, in a pan-European survey of people with a schizophrenia diagnosis, while 41.7% reported moderate or high levels of internalised stigma almost 70% reported that they perceived mental health discrimination to be moderate or high (Brohan et al. 2010a). In longitudinal research internalised stigma is predicted by the perception of public stigma at baseline but not vice versa (Vogel et al. 2013). This means it is possible, to perceive that society holds stigmatising views towards you but not to apply that perception to one's own sense of self (Brohan et al. 2011). It is this self-application of negative stereotypes and the resultant devaluation, shame, secrecy and social withdrawal that distinguishes internalised stigma from awareness or perception of public stigma. It is therefore important to better understand the processes which determine whether or not people experiencing mental health problems will internalise stigma.

1.4.1. Theoretical frameworks

Kondrat (2012) suggests the development of the construct of internalised stigma has been influenced by two theoretical approaches. Modified labelling theorists suggest that the perception that people affected by mental health problems have of how they will be viewed and treated by others is formed early in life through a variety of familial and cultural influences (Link et al. 1989). They suggest that negative stereotypes towards people affected by mental health problems become internalised and that where people do go on to experience mental health problems later in life that these stereotypes become relevant to that person's sense of self (Watson et al. 2007). The process of psychiatric labelling plays a key role in this model. For example, fear of rejection, as an indicator of internal stigma, is more pronounced where people have been officially labelled as mentally unwell with a formal diagnosis, regardless of their level of symptoms (Link 1987).

Modified labelling approaches have been criticised for focusing too strongly on the perception of stigma as an indicator and predictor of internalised stigma (Watson et al. 2007). In response social cognitive models of internalised stigma have been proposed which are more concerned with the coexisting underpinning processes which may lead to internalised stigma (Corrigan & Watson 2002; Corrigan, Watson & Barr 2006; Watson et al. 2007). While modified labelling theories suggest that internalised stigma is an almost pre-determined consequence of early life exposure to stereotyped public views about mental health for people who later receive a psychiatric diagnosis, social cognitive theorists emphasise that people in fact respond quite differently to societal stigma (Corrigan & Watson 2002). They propose that the internalisation of stigma is not inevitable and is in fact contingent upon a series of steps in a process (Corrigan, Watson & Barr 2006) and that perceived stigma is a necessary but not sufficient component of internalised stigma (Watson et al. 2007). Given the current study is concerned with the processes underlying the internalisation of stigma, social cognitive models, which have also been the focus of most recent work in stigma research, were felt to be more appropriate to adopt as an underpinning theoretical framework than the more deterministic modified labelling approach.

Corrigan and colleagues identify processes underpinning internalised stigma, from a social cognitive perspective, as stereotype awareness, stereotype agreement, self-concurrence and self-esteem decrement, which together form domains in the Self Stigma of Mental Illness Scale (Corrigan, Watson & Barr 2006). Stereotype awareness is simply being aware that negative beliefs about people affected by mental health problems exist in wider society. Stereotype agreement relates to the extent that a person affected by mental health problems agrees with those stereotypical views. Corrigan and colleagues suggest that self-concurrence is the stage at which stereotypes become harmful in that it relates to the extent to which a person believes stereotyped views apply to them personally. This self-concurrence can in turn lead to self-esteem decrement where that person's self-esteem is negatively impacted due to the self-application of stereotyped views.

Three interdependent contributors to internalised stigma have also been characterised by Corrigan and colleagues as the three 'A's of awareness, acceptance and application. In other words, someone experiencing mental health problems needs to be aware that stigmatising views exist in society, they need to accept the validity of those views and they also need to apply those beliefs to their sense of self. This self-application (which can also be understood as internalisation) contributes in turn towards a reduction in self-esteem through a diminished goal orientation in what has been characterised as a 'why try?' model of internalised stigma (Corrigan et al. 2009).

An alternative social cognitive model of internalised stigma suggests contributory elements comprise alienation, social withdrawal, discrimination experience, stereotype endorsement and stigma resistance. These form the five subdomains of the Internalized Stigma of Mental Illness Scale (ISMI: Boyd Ritsher, Otilingam & Grajales 2003; Boyd, Otilingham & DeForge 2014), which is the most commonly applied measure of internalised stigma from a social cognitive perspective (Brohan et al. 2010b; Livingston & Boyd 2010). This construction, which is linked with the definition of stigma adopted for this study, differs from that of Corrigan and colleagues in that it more strongly emphasises social-relational factors in both the social withdrawal and alienation subdomains (albeit alienation also pertains to sense of self and identity). The current study is concerned with the potential role of attachment style on the internalisation of stigma. Given the hypothesised effect is proposed to be through the influence of insecure attachment on the perception and interpretation of social relationships this model was felt to be a better fit for this study than that of Corrigan and colleagues.

The model developed by Jennifer Boyd and colleagues also includes the positively oriented domain of stigma resistance, which can be understood as challenging or deflecting negative beliefs associated with having mental health issues (Thoits 2011). However, some evidence suggests stigma resistance may be a separate construct to internalised stigma and should be considered separately (Sibitz et al. 2011b; Chang et al. 2014; Brohan et al. 2011). It is also notable that stereotype endorsement tends to be scored lowest of the ISMI domains (Brohan et

al. 2011), suggesting again that people are more likely to be aware of stigma than to self-apply stereotypes. This perhaps gives some clues to the variation in the degree to which people experiencing significant mental health issues are affected by internal stigma.

1.4.2. Incidence of internalised stigma

West et al. (2011) found that in a sample of people in receipt of community-based mental health services just over a third reported elevated levels of internal stigma. In a study across 14 countries, 41.7% of people with a schizophrenia diagnosis were moderately or strongly affected by internalised stigma (Brohan et al. 2010a), which compares to a figure of 21.7% for people with a diagnosis of bipolar disorder or depression (Brohan et al. 2011). While Krajewski, Burazeri and Brand (2013) found marked variation in levels of internalised stigma across six countries, meta-analytic review evidence suggests internalised stigma exists independently of sociodemographic characteristics (Livingston & Boyd 2010; Drapalski et al. 2013).

Why some people affected by mental health problems appear more resistant to internalisation of public stigma is not well understood (Livingston & Boyd 2010; Hasson-Ohayon et al. 2011). It is possible that the presence of positive stigma coping techniques may play a role. For example, social support (Chronister, Chou & Liao 2013) and retaining a sense of making a valued contribution to society (Sibitz et al. 2011b; Thoits 2011), may both play some kind of buffering effect against stigma's internalisation. Given its incidence and impacts there is therefore some urgency to test new theoretical approaches (Lucksted & Drapalski 2015), further emphasised by evidence of the limited effectiveness of interventions designed to reduce internalised stigma (Wood et al. 2016b; Mittal et al. 2012; Griffiths et al. 2014). One such novel theoretically driven approach, which has been proposed elsewhere (Smith 2013), is to consider the role of social-relational style in stigma processes and experiences.

Commenting on mixed results from national anti-stigma campaigns, primarily aimed at the changing attitudes and behaviours in the general public, Smith (2013) proposes a new focus on the interpersonal relationships where stigma is perceived to exist. He proposes we shift our

thinking on the reduction of stigma from the 'macro' or societal level to the 'micro' or interpersonal level. Smith argues a greater focus on the interactions between people where stigma is perceived to exist may help create greater clarity on what we really mean by stigma and in turn inform how we address it. This call builds on concerns raised by others that stigma is a term which is perhaps too readily used in the context of mental health at the same time as being poorly understood (Manzo 2004). The role of attachment style in the internalisation of stigma and its resistance has not been widely researched in the context of adult mental health. It is worthy of investigation given the known effect of insecure attachment experiences on stigma relevant processes including appraisals of threat, responses to distress and psychiatric and recovery outcomes.

1.5.Attachment theory

Attachment theory is a developmental theory of psychological and interpersonal functioning, initially proposed by John Bowlby and Mary Ainsworth (Bowlby 2005). Bowlby (1973; 1980) proposed that the attachment behavioural system emerged adaptively over time as a core aspect of mammalian evolution. The theory suggests that it is a developmental necessity for infants to have a 'safe haven,' for the regulation of distress, and a 'secure base,' for the exploration of wider opportunities and environments. Attachment experiences with primary caregivers in early childhood are believed to lead to the development of an 'attachment style,' whereby internal working models of self in relation to others develop which influence, amongst other things, expectations and interpretations of social interactions and relationships as children and adults (Bowlby 1969; Mikulincer & Shaver 2010). Early empirical support for the theory came from observations of infants' responses when separated from a primary caregiver, both in the presence and absence of a stranger (Ainsworth, Blehar, Waters & Wall 1978). This technique, known as the 'strange situation test' led to the identification of three attachment styles, distinguishing infant regulation of distress and relational working models. These were secure, insecure-avoidant and insecure-ambivalent/anxious. Main & Solomon

(1986) later supplemented these three 'organised' styles with 'disorganised' attachment style, after observing seemingly contradictory infant behaviours towards primary caregivers.

The internal working models concept can be understood as the hypothesised mechanism through which early attachment experiences are transferred to adult relationships (Pietromonaco & Barrett 2000). Hazan & Shaver (1987) initially highlighted parallels between child-caregiver attachment and later attachment related experiences and behaviours with adult romantic partners. Since then a number of researchers have attempted to examine internal working models and while they remain the foundation for understanding how attachment operates in later life questions remain on their mechanism (Pietromonaco & Barrett 2000). Working models are assumed to include content stored in an organised structure about attachment experiences and events (Bowlby 1980) and the emotions connected with them (Bretherton 1985). These in turn govern processes which influence how attachment relevant experiences are processed and attended to throughout life. Evidence suggests that these models operate at different levels of conscious awareness (Maier et al. 2004) influencing interpretation, memory, attention and, most importantly in the context of stigma, predictions about future interpersonal experiences and the ability to see the wider social environment as non-threatening (Berry, Danquah & Wallin 2014; Maier et al. 2004).

When the attachment system is activated in response to stress people adopt different attachment associated responses based on their past experience. People who are securely attached will be more likely to engage the primary attachment strategy of proximity seeking and take comfort from attachment figures. This is a strategy which proved successful as an infant and has become part of an internal working model of self and others. According to Bowlby (1973; 1980) people with insecure attachment experiences on the other hand have learned that proximity seeking in response to distress is ineffective and therefore engage in secondary attachment responses of hyperactivation or deactivation of the attachment system in the face of stress and psychological threat (Mikulincer & Shaver 2010; Stanton & Campbell 2013).

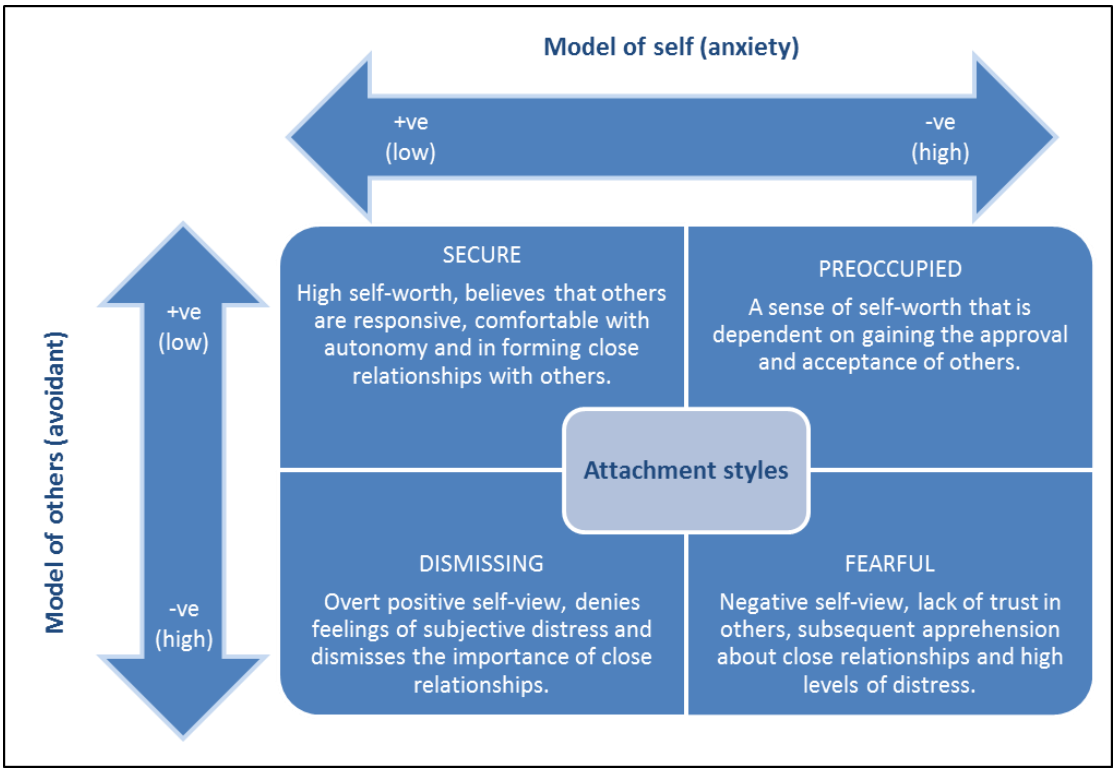
While Bowlby did moderate his early deterministic view on the centrality of early mother-infant relationships towards a model of risk and resilience, attachment theory has been criticised for generating a pessimistic picture of the future prospects of any child with poor early attachments (Slater 2007). Longitudinal evidence does suggest attachment style is moderately stable over time (Fraley 2002; Klohnen & Bera 1998) but is also open to change as a consequence of later attachment-relevant life experiences, for example, starting or ending a long-term relationship. However, evidence on change over time is inconsistent (Mikulincer & Shaver 2010).

1.5.1. Measurement and models

The most common means of measuring attachment style in adults is the Adult Attachment Interview, which is based on an assessment of narrative quality from data generated in a semi-structured interview to identify secure and insecure patterns of adult attachment (George, Kaplan & Main 1985). Self-report measures of adult attachment style, such as the Psychosis Attachment Measure (PAM: Berry et al. 2006) and the Experiences in Close Relationship questionnaire (ECR; Brennan, Clark, & Shaver 1998), have also been shown to have the capacity to provide a reliable assessment of attachment style in adults with mental health issues (Picardi et al. 2011; Gumley et al. 2014). Two underlying dimensions have been identified in these measures (Brennan, Clark, & Shaver 1998). These have been characterised as 'model of self' and 'model of other,' and alternatively, in behavioural/affective terms, as anxiety and avoidance (Bartholomew and Horowitz 1991; Berry & Wearden 2006). Anxious attachment is linked to an excessive need for approval and care from others in tandem with a fear of abandonment. This hyperactivating attachment response is employed as a means of coping with perceived threat and regulating negative emotions (Mikulincer & Shaver 2010). Avoidant attachment style is connected with a negative view of others and an increased tendency toward self-reliance (Berry & Wearden 2006) which can also be characterised as a deactivation of attachment system in the face of stress or perceived threat. It is sometimes separated into two qualitatively different subtypes of dismissive-avoidant and fearful-avoidant (Bartholomew 1990; Bartholomew & Horowitz 1991). Dismissive-avoidant responses to

emotional distress may include avoiding threats and dealing with problems alone (Mikulincer & Shaver 2010). Fearful-avoidant attachments style, which is linked to experiences of trauma (Berry & Bucci 2015), is similar to Main & Solomon's (1986) disorganised attachment style where high levels of both anxious and avoidant attachment may lead to apparently contradictory behaviours in relationships.

Figure 1.1 Bartholomew's (1990) four category model of attachment (adapted from Berry & Wearden 2006)



1.5.2. Attachment styles and mental health outcomes

Attachment security is believed to contribute towards good mental health through a broaden and build cycle, founded on repeated experiences of caring, supportive and accessible attachment figures (Bowlby 1969; Mikulincer & Shaver 2003). This cycle generates positive emotional experiences, promotes positive self-perception, positive relationships with others and participation in growth enhancing activities. Conversely, attachment insecurity is a significant contributor to mental health problems (Bakermans-Kranenburg & van IJzendoorn 2009) and might be considered a general vulnerability for poor mental health (Mikulincer & Shaver 2012). According to Bowlby (2005) interactions with unreliable, inconsistent or

uncaring attachment figures hinders the development of the ability to cope with distress and negatively impacts mental resilience (Bowlby 2005).

Specific links between insecure attachment and a variety of psychiatric diagnoses have been identified including eating disorders (Tasca & Balfour 2014), personality disorders (e.g. Crawford et al. 2007), obsessive-compulsive disorder (Doron et al. 2009) and schizophrenia (Berry, Barrowclough & Wearden 2007).

Attachment style has been shown to have implications for affect regulation and adaptive coping. People who are securely attached are more likely to seek the support of other people to combat negative moods while those with insecure attachment styles may use less adaptive coping strategies, for example rumination, in the face of distress (Mikulincer, Shaver & Pereg 2003). More than a hundred studies have examined the relationship between attachment and levels of anxiety and depression in non-clinical samples (Mikulincer & Shaver 2010). These studies have consistently demonstrated that secure attachment in adults is related to lower levels of anxiety and depression than those observed in people with insecure attachment styles. For example, in one community based study 60 women who had completed a Structured Clinical Interview for psychiatric diagnosis (Spitzer at al. 1990) were purposively sampled on the basis that 30 had received a diagnosis based on the interview and 30 did not. Following an assessment of attachment style all 13 women who were assessed as having an anxious attachment style were found to be in the diagnostic grouping (Ward, Lee & Polan 2006).

Maladaptive responses to emotions leave people with insecure attachment prone to a range of social and emotional difficulties in later life (Mikulincer & Shaver 2010) and enhance vulnerability to mental health problems (Mikulincer & Shaver 2012). However, while the association between anxious attachment style with increased depression and anxiety is uniform there is a less consistent picture in relation to avoidant attachment (Mikulincer & Shaver 2010). Ein-Dor and Doron (2015; 2016) describe a transdiagnostic model of

attachment-related vulnerability to mental health problems. They propose a series of mediational processes to explain the mechanisms through which attachment can lead to a variety of mental health problems, to the development of different mental health problems in people with similar attachment experiences and to diagnostic variations in the same individual over time. The influence of insecure attachment across a variety of mental health problems (Mikulincer & Shaver 2010; Mikulincer & Shaver 2012) informed the transdiagnostic design of the current study. Attachment styles also appear to play a role in determining outcomes for people who do go on to develop significant mental health problems. For example, insecure attachment styles amongst adults experiencing psychosis are negatively associated with recovery, therapeutic alliance, symptomology and service engagement (Gumley et al. 2014; Drayton, Birchwood & Trower 1998; Berry, Barrowclough & Wearden 2007).

Differences in attachment system functioning may also play a role determining responses to trauma, including an increased likelihood for people with insecure attachment to develop Post Traumatic Stress Disorder (PTSD: Mikulincer & Shaver 2010). Insecure attachment may also play a role in determining the specific form that PTSD takes (Horowitz 1982) and has also been linked with increased severity of symptoms (Kanninen, Punamaki & Qouta 2003; Mikulincer, Shaver & Horesh 2006). Orbach (1997) proposed that insecure attachment styles predispose people to increased risk of suicide through various tendencies including negative models of self, perfectionism and self-criticism. While there is limited research to support this theoretical position, population based research has shown that people with insecure attachment are more at risk of suicidal ideation and attempts (Palitsky et al. 2013).

Help seeking for psychological distress may also be linked with insecure attachment styles. For example, Vogel and Wei (2005) showed that people with avoidant attachment styles were less likely to acknowledge distress or to seek help than people with either anxious or secure attachment styles. This finding is very much in line with attachment theory, which suggests that people with avoidant attachment styles have a tendency towards self reliance and being dismissive of others.

1.5.3. Critical perspectives

While attachment theory has widely influenced policy and practice, particularly in relation to young people there remains a degree of scepticism towards it (Slater 2007) and it has been suggested that an uncritical group think has emerged amongst academics who have invested their careers in the validity of attachment theory (Clench 2017). One critique suggests that there is some risk that in adopting an attachment based aetiology when working therapeutically with people because it suggests a pre-determination in outcomes and shuts down the possibility of change (Slater 2007). Questioning the predictive power of early attachment experiences and a lack of prospective evidence, Meins (2017) suggests that laying too much emphasis on early childhood attachment as a determinant of later outcomes places an unreasonable expectation on parents and that variation in attachment is normal and should be expected. Research on attachment theory may also have lost some of its original focus on the evolutionary necessity of attachment as a survival mechanism and that a simplistic interpretation of insecure attachment as universally negative fails to take account of the synergistic relationships at societal level between different attachment styles (Ein-Dor & Hirschberger 2016).

Attachment theory has been criticised for being overly individualistic and insufficiently concerned with the people's wider social environment as a determinant of relational style and problems (Buchanan 2013). Feminist critiques of attachment theory suggest that it is founded on patriarchal notions of caregiver roles and can suggest prescriptive and gendered roles for mothers (Morris 2008; Contratto 2002). Attachment theory has also focused primarily on individual differences in global patterns of attachment, which suggests the same attachment tendencies towards all people and a degree of predetermination. In line with self-determination theory, it has been shown that attachment tendencies toward different significant others can vary within the same individual (La Guardia et al. 2000). Cook (2000) suggests that supposedly fixed internal working models may be less important in determining relationships than presumed, arguing for a greater emphasis on interpersonal determinants of adult attachment.

1.6.An attachment informed approach to internalised stigma

Theoretical support for the potential role of attachment style in the internalisation of stigma comes from a number of perspectives. These include evidence on the role of attachment style in determining responses to feelings of distress and threat generally as well as evidence on relationships between stigma relevant concepts and attachment style in wider groups of people prone to stigma. There is also limited support from research in the context of adult mental health where internalised stigma and attachment have been measured. Support for the investigation of the potential role of attachment style in the internalisation of stigma may also be drawn from developing thinking in stigma research.

An attachment perspective suggests that a person's security of attachment may determine how they respond to perceived or experienced stigma (Mikulincer & Shaver 2012). Research suggests that, in comparison to people with insecure attachment, people with secure attachment styles have greater resources to call on in the face of emotional distress or perceived threat, including more ready access to positive memories to help alleviate distress (Mikulincer, Shaver & Pereg 2003). Conversely people who are less securely attached have an increased tendency to exaggerate appraisals of threats (Mikulincer et al. 2000), difficulties in the suppression of negative thoughts and feelings (Mikulincer, Dolev & Shaver 2004) and a greater tendency for rumination (Mikulincer, Shaver & Pereg 2003). It is conceivable that these same predispositions could play some role in determining how people with experience of mental health problems respond to perceived or experienced stigma, which can be understood as a form of social threat and a source of considerable distress. Further, it is also possible that attachment style may play some role in determining whether people with experience of mental health problems internalise or reject stigma.

Support for the proposition that people with secure attachment styles may have more internal resources to call upon for self-validation in the face of other's negative attitudes and behaviours can be gleaned from research on other groups who are prone to societal stigma (Zakalik & Wei 2006; Elizur & Mintzer 2003). Relevant observations include a reduced

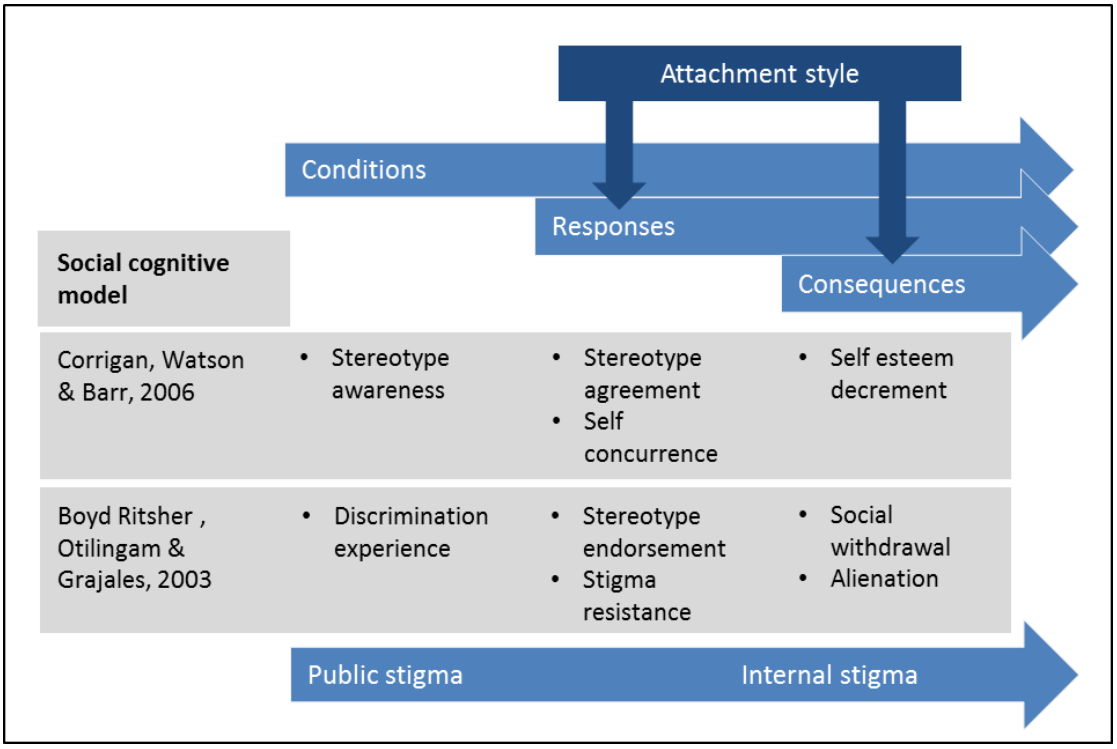
likelihood for internalising shame amongst lesbians with secure attachment styles (Wells & Hansen 2003), a mediating effect for perceived discrimination in the relationship between insecure attachment styles and depression in gay men (Zakalik & Wei 2006) and an increased endorsement of stigma and negative stigma-related self-image amongst people living with HIV who have an anxious attachment style (Riggs, Vosvick & Stallings 2007). It should be noted that all of these studies were observational so it is not possible to draw conclusions on causal relationships. The small number of studies which have looked at relationships between internalised stigma and attachment style in the context of adult mental health have also shown higher levels of internalised stigma to be associated with insecure attachment styles (Restek-Petrović et al. 2015; Cheng, McDermott & Lopez 2015). Again, these findings were observational and as yet untested longitudinally, so caution is required in their interpretation.

Given gaps in understanding about the underlying processes involved in the internalisation of mental health stigma (Livingston & Boyd 2010) some researchers have called for new research approaches (Sibitz et al. 2011b; Margetić et al. 2010; Livingston & Boyd 2010) and these offer further support for the consideration of attachments style as potentially contributory. Social cognitive theorists focus on the social-relational context in which stigma exists and have largely neglected to consider the role of more fixed individual level contributors in determining responses to stigma. For example, Margetić and colleagues (2010) have proposed that personality may be implicated in determining the internalisation of stigma. A case may also be made for attachment style being an individual level determinant which potentially determines the internalisation of stigma.

Figure 1.2 demonstrates how social cognitive models of internal stigma focus on the conditions in which stigma exists, individual's responses to those conditions and the consequences of those responses. Internal working models, governing the interpretation and processing of attachment relevant experiences and access to memories of perceived threat (Mikulincer, Shaver & Pereg 2003), might be hypothesised as influencing responses to

conditions in which stigma exists and also in playing a role in determining its consequences and outcomes.

Figure 1.2 An attachment informed model of the internalisation of stigma



A second shift in stigma research has been toward an increased focus on better understanding the availability of 'buffers' against the toxic effects of stigma (Rüsch et al. 2006; Thoits 2011). It is proposed that focusing more strongly on buffers and coping strategies might usefully inform the development of interventions to build stigma resistance (Campellone et al. 2014). Specific support for the potential role of attachment in stigma resistance may be gleaned from two perspectives. Wider research suggests attachment style plays an important role in determining coping style in psychosis (Gumley et al. 2014) and this may suggest a similar role in relation to coping with the effects of public stigma. Secondly access to social support has been shown to be a positive buffer against stigma (Livingston & Boyd 2010; Lysaker et al. 2007), so it is noteworthy that the extent to which people can access this social support is in part contingent upon attachment style (Graves et al. 1998). Attachment theory is

concerned with our mental representation of self in relation to others (Bowlby 1969), so our access to, and interpretation of, social relationships and the support they can provide are important.

1.7.Conclusion

Internal stigma is a disabling phenomenon but the processes which determine how people with mental health problems respond to stigma are poorly understood. There is therefore some urgency to test new theoretical models to inform the development of interventions to mitigate its negative effects. Attachment theory has the potential to offer new insights in relation to the internalisation of stigma at the same time as informing why some people appear more resistant to negative effects from stigma. If attachment style does indeed play some role in determining responses to stigma then it is also conceivable that it could inform the identification of people at greatest risk of internalising stigma, which has been suggested as a priority for future research on interventions.

2. LITERATURE REVIEW

2.1.Introduction

Internal stigma has been defined as the "psychological point of impact of societal stigma on people with mental illness" (Boyd, Otilingham & DeForge 2014, p17). While it is clear that internal stigma is a disabling phenomenon there is limited evidence to explain the processes by which stigma becomes internalised (Livingston & Boyd 2010; Hasson-Ohayon et al. 2011. This creates some urgency to test new theoretical approaches (Lucksted & Drapalski 2015), further emphasised by evidence of the limited effectiveness of interventions designed to reduce internalised stigma (Wood et al. 2016b; Mittal et al. 2012; Griffiths et al. 2014). One such novel approach, which has been proposed elsewhere, is to consider the role of relational style in stigma processes and experiences (Smith 2013). Attachment theory (Bowlby 1969) is a well-established and widely researched approach to understanding relational style and one which is increasingly being applied in adult mental health contexts (Berry, Danquah & Wallin 2014). Adult attachment style is formed as a result of early childhood experiences with primary caregivers (Bowlby 1969) whereby internal working models of self in relation to others develop which influence, amongst other things, our expectations and interpretations of relationships as adults (Bowlby 1969; Mikulincer & Shaver 2010). Attachment style may influence adult responses to stigma (Mikulincer & Shaver 2012), with limited evidence of an association with aspects of stigma both within mental health literature (Restek-Petrović et al. 2015; Cheng, McDermott & Lopez 2015) and in other marginalised groups (Wells & Hansen 2003; Zakalik & Wei 2006; Riggs, Vosvick & Stallings 2007).

2.2.Approach to literature review

Initial scoping for this review suggested an extremely limited amount of published literature on attachment style and internal stigma in relation to adults affected by mental health problems. Given attachment theory is fundamentally concerned with the experience and interpretation of social relationships, it was felt that clues as to the relevance and potential contribution of attachment to internal stigma might be gleaned from adopting a broad search strategy. Consequently, a research question was adopted with the intention of examining all

aspects of social and relational factors in internalised stigma with a view to informing an attachment focused research approach, as follows:

What can we conclude from empirical evidence about the relationships between internalised stigma and social and relational factors in adults with experience of significant mental health issues?

Grant and Booth (2009) identified as many as fourteen different literature review types, which they argue are distinguishable by the methods applied within those reviews. These include critical, rapid, scoping umbrella, and systematic reviews. The current review was designed to be systematic. In other words, the aim was to use systematic and clearly described methods to identify, search, critically appraise and then analyse relevant evidence to answer a specific research question (Green et al. 2011). This approach differs from non-systematic literature reviews, which are sometimes referred to as narrative reviews (Popay et al 2006), in the degree to which rigour is applied, and the extent to which the review is replicable, thereby reducing the likelihood of bias (Wong 2007). Systematic reviews are helpful for filling gaps in scientific knowledge (Jahan 2016) and are generally considered to be at the top of a hierarchical pyramid of evidence quality (Murad et al. 2016).

A number of different methods can be applied to analysis in systematic reviews. These include meta-analysis, which Greenhalgh (2009) describes as a mathematical synthesis of results from two or more studies which seek to address the same hypothesis. For a meta-analysis to be completed the same or similar methods need to be applied across studies, which are often concerned with researching interventions (Greenhalgh, 2009). Given the current review identified a broad range of papers which applied a variety of methods to answer different research questions alternative methods of synthesis were necessary. Narrative synthesis takes a textual approach to synthesising evidence across disparate studies, often where included studies involve different methods and research questions (Popay et al. 2006).

As such it was well suited as a means of analysis in the current review where a heterogeneous set of studies were included.

PRISMA recommendations for the conduct of systematic reviews were used to inform the development and reporting of the review (Moher et al. 2009).

2.3.Method

2.3.1. Eligibility criteria

Included papers were limited to primary research papers which were published in peer reviewed journals and were written in English before March 2015. Studies of qualitative and quantitative design which reported primary data were included. This included systematic reviews and meta-analyses, given they generated new knowledge beyond the scope of included studies. Where possible, database searches were limited to adult samples (18 years of age and over). Where a paper included participants both over and under 18 they were included if the average age was over 18.

Only papers which referred to processes and experiences of stigma internalisation were included. This meant that papers that solely considered awareness of public stigma or the anticipation of public stigma, in the absence of its internalisation or self-application, were excluded. Papers which did not refer to social or relational factors were excluded as were those where the focus was not specifically on people affected by mental health issues. Position papers, commentaries, protocols and conference abstracts were excluded.

2.3.2. Information sources

The following databases were used in the literature search: PsycARTICLES, Academic Search Complete, CINAHL and PsycINFO.

2.3.3. Search and study selection

Article abstracts were searched for the following specific terms (described in Table 2.1 below).

Table 2.1 Search terms by construct

Internalised stigma	(self OR internal*) AND stigma
Population grouping	mental
Social and relational factors	attachment OR relations* OR alliance OR personality OR (social AND support OR contact OR network) OR (group AND identification)

The terms 'self' and 'internal' are used interchangeably in the literature to refer to the form of stigma of interest in this review so both were included. The inclusion of the term 'mental' partially limited the search to papers relating to forms of stigma associated with mental health issues. A variety of search terms were used to identify papers addressing different social and relational factors. These terms were identified through a series of test searches and through an awareness of the generally relevant themes in extant literature. The terms 'attachment' and 'personality' were included to identify papers from a theoretical psychological perspective. The term 'alliance' was included to capture papers related to relationships with mental health professionals, for example, therapeutic alliance. The terms 'social' and 'support' were included to identify literature about the extent to which availability and quality of social support was of relevance to internalised stigma. The terms 'group' and 'identification' were included to identify literature on social relations in the context of group interactions and identity.

To assess the comprehensiveness of initially identified search terms references were also hand searched during the review. New potentially eligible papers, which were identified through hand searching were accessed and reviewed for eligibility. Through this, and discussion with experts in the field of clinical psychology, the search terms 'contact' and 'network' (social and) were added. No other additional search terms were identified.

2.3.4. Data collection process

A data collection form was developed in Microsoft Excel software, based on recommendation by Higgins and Deeks (2011), with items summarised in Table A1. References were logged using Mendeley Desktop reference management software.

2.3.5. Review of quality

Any systematic review should be based on the best available evidence and it is therefore vital to effectively assess the quality of selected research (CRD 2009) and to be conscious of the risk of bias in included studies. In an attempt to indicate quality and to aid interpretation all studies selected for full review were rated as high, medium or low quality using the following criteria, which were based on recommendations by Petticrew and Roberts (2006):

- Relevance of the research question to the review.
- Internal validity of included studies. In other words, how well an included study has been conducted, most notably in relation to whether any suggestions of causality are robust and whether potentially confounding variables have been taken account of.
- External validity of included studies. This is largely concerned with how generalisable the results of a study are to wider populations.
- Any ethical implications of included studies.

Each of these criteria were rated individually with a score of three assigned for a high rating, two for a medium rating and one for low. A mean score was calculated from these scores to determine the overall quality rating. Overall quality ratings for included studies were reported and then considered when describing results, with papers of a higher quality given more prominence. However, papers were not excluded from the review on the basis of having a lower rating.

2.3.6. Synthesis of results

Popay and colleagues (2006) suggest that there are four main steps in narrative synthesis, reviewers tend to work iteratively between them. Initially they propose developing a theory of

change which will be used to inform the systematic review. In the current review the underpinning theory of change was that social and relational factors would play a positive role against the internalisation of public stigma amongst adults affected by mental health problems. To develop an initial description of the results of included studies a preliminary synthesis was completed with papers results, key characteristics and potential biases summarised for all papers, while being organised in such a way as to allow for the comparison of patterns of effect and influence across studies.

The next step involved a more rigorous interrogation of findings across studies and at this stage, given the heterogeneous nature of a relatively large number of included studies, it was decided to group papers logically by the different type of social or relational factors addressed and by the contexts in which they occurred. Relationships were initially explored between studies in each grouping and then findings were examined across all subject groupings. This type of post-hoc subgroup analysis can be helpful in examining a theory of change when managing heterogeneity in included studies, enabling an assessment of why anticipated change may or not have occurred in different settings (Popay et al. 2006).

2.4.Results

2.4.1. Study selection

The database searches identified 523 records, which after the removal of duplicates was reduced to 332 records. Abstracts were then screened which led to the exclusion of 280 records. The remaining 52 records were accessed and reviewed in full. An additional nine records were excluded at this stage leaving 43 records included in the review. Figure 2.1 represents the flow of studies through the search process employed. The primary reason for the exclusion of records at both abstract and full review stage is shown in Table 2.2.

Figure 2.1 Flow of studies through the review.

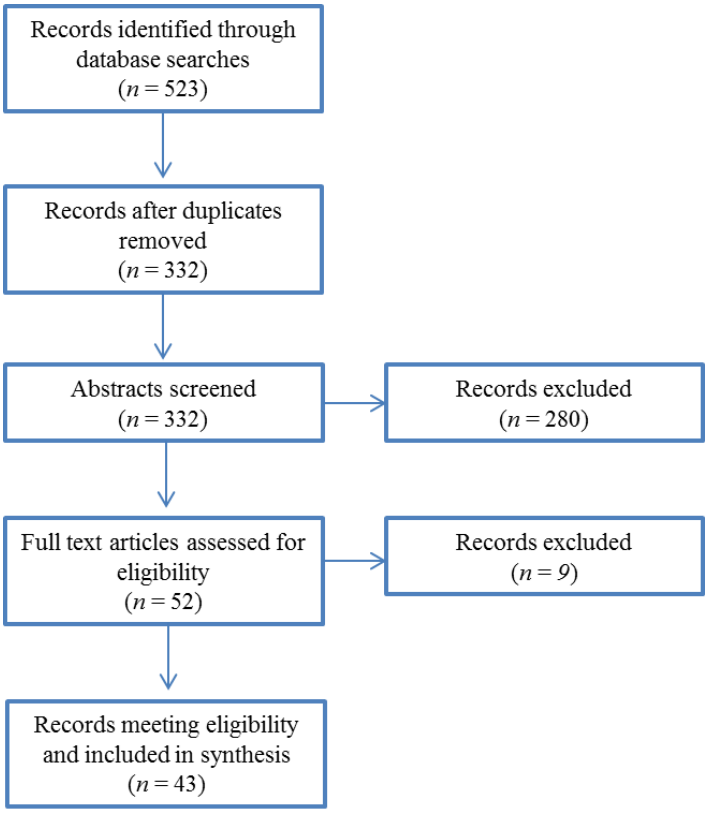


Table 2.2 Primary reasons for exclusion at abstract and full review stages

Primary reason for exclusion	*Abstract review n =*	*Full review n =*
Not specific to internalised stigma	157	3
Not specific to social or relational factors	53	3
Not mental health sample	53	1
Not adult sample	6	0
Other*	11	2
Total	280	9

* Position papers, commentaries, protocols, conference abstracts or findings reported elsewhere

2.4.2. Study characteristics

The total number of participants across the 43 studies included in the review was 40,691, albeit this included two systematic reviews so there is some potential for double counting. One review assessed empirical relationships between internalised stigma and a range of psychosocial, psychiatric and sociodemographic variables (Livingston & Boyd 2010). Eight

of the 127 papers included in the Livingston and Boyd review were also included in the current review. Nam et al. (2013) provided a review and meta-analysis of student mental health help seeking but none of the included papers were duplicated in the current review. Variables shown to influence student help student seeking included internalised stigma and social support, so the Nam review met the inclusion criteria for this review. However, while conclusions were drawn across included papers about possible connections between internal stigma and social and relational factors none of the papers included in the Nam review individually met the eligibility criteria for this review. This was because none of those papers included measures of both internalised stigma and social support.

The majority of included papers were of quantitative design (*n* = 37). Of those four were longitudinal, two were systematic reviews and the remainder cross-sectional (*n* = 32). Two main measures of internalised stigma were used in the studies with the most commonly applied the Internalized Stigma of Mental Illness Scale (ISMI: Boyd Ritsher, Otilingam & Grajales 2003 - *n* = 20) followed by the Self Stigma of Mental Illness Scale (Corrigan, Watson & Barr 2006 - *n* = 5). Other methods of assessing internalised stigma included bespoke measures and the combination of other variables as proxy measures. For example, Rüsch et al. (2006) combined measures of self-esteem and empowerment and other studies used elements of Link's (1987) Perceived Devaluation and Discrimination Scale (PDD).

Where analytic approaches were specified in the included qualitative studies grounded theory was most commonly applied. These studies were variously concerned with the experience of interventions (*n* = 2), therapeutic relationships and interactions (*n* = 2) community integration (*n* = 1) and intimate relationships (*n* = 1).

Most samples were recruited from community settings (*n* = 34) with the remainder in mixed community and inpatient settings (*n* = 9). The largest group of studies were based on mixed diagnostic samples (*n* = 21), followed by schizophrenia or related diagnoses (*n* = 16), with the remainder specific to other diagnoses (*n* = 3) or student samples (*n* = 3). Nearly all included

studies were rated as medium quality (n = 40). A small number of papers were rated as being of either high (n = 2) or low (n = 1) quality.

Five main groupings related to social and relational factors were identified with papers synthesised under each. These were: social support, characteristics and perceptions of relationships, close and intimate relationships, group identification and participation, social factors in service use. Included studies are summarised in Table A2. This table describes the key features of each study including the methods used, the quality rating for each and the main findings. Effect sizes are also reported where available and relevant to the review question. The search suggested that no similar systematic review examining internalised stigma in the context of social and relational factors had been published to date.

2.4.3. Social support

The most frequently identified theme in this review related to social support and its interaction with internalised stigma. Included studies assessed the relationships between levels of social support and internalised stigma as well as the potential benefits against internalised stigma of providing social support. Others researched the role of social support in the process of stigma internalisation and its potential to provide a buffering effect against stigma. A small number of studies considered these dynamics over time and also the role of social and relational factors in relation to interventions designed to reduce internal stigma.

In the first systematic review and synthesis of internalised stigma and its correlates, Livingston and Boyd (2010) identified a negative relationship between social support and internalised stigma in seven out of 12 studies where it was an included variable. Three of these studies were subsequently included in a meta-analysis further demonstrating reduced social support was associated with higher levels of internalised stigma, albeit it with a small effect size (r = -.28, p < .05). This negative association was supported in a range of geographically diverse observational studies during the current review. These included studies from China (Lv, Wolf & Wang 2013), Nigeria (Adewuya et al. 2011) and Turkey (Cerit et al. 2012) where low levels of social support were found to be associated with higher internalised

stigma. Further support for this relationship was provided in pan-European cross-sectional studies, across diagnoses (Krajewski, Burazeri & Brand 2013) and specific to depression and bipolar disorder (Brohan et al. 2011) and psychosis (Brohan et al. 2010a).

An inverse association between social support and internalised stigma was also identified in a Korean study, along with a positive association between social conflict and internalised stigma (Kim et al. 2015). However, in a regression model high social conflict but not low social support was found to predict internalised stigma suggesting that the dynamics and characteristics of social relations and relational skills may be more important in internalised stigma than levels of support *per se* in this sample. Seeking to understand the relationship between internal stigma, social networks and quality of life Sibitz et al. (2011a) suggested that a negative effect of reduced social support on quality of life was indirect, operating through internal stigma and its negative influence on mood. However, given the cross-sectional design employed in both of these studies, it is not possible to draw conclusions about the ordering of effects. Both also featured unusually low levels of internal stigma.

Importantly longitudinal support for inter-connection between social support and internalised stigma does exist. Lysaker et al. (2007) found that baseline interpersonal relations, both in terms of frequency and quality, predicted internalised stigma at six months, when controlling for stigma at baseline, with the authors postulating that vulnerability to stigma was reduced through social relations. They also found high internalised stigma at baseline predicted poorer interpersonal relations at six month follow up. This association was first identified by Link et al. (1989) who argued that a reliance on the negative stigma coping strategy of social withdrawal had the effect of reducing social support. Link et al. (1989) also identified that people with repeat experience of hospital admission were significantly more likely to have reduced social networks than those who had not been admitted to hospital. This connection between level of social support and number of hospital admissions was echoed by Cerit et al. (2012) in a cross-sectional study on bipolar disorder. If positive buffering effects of social

support against internalised stigma are diminished through hospital admission, it enhances the rationale for supporting people in community settings wherever possible.

In a longitudinal study concerned with change in levels of internalised stigma over time Ben-Zeev et al. (2012) measured a number of variables throughout the day over a one week period using mobile technology. This included a measure of social company. While internalised stigma ebbed and flowed over time, increased levels were not associated with reduced social company. This finding, while relevant to the discussion about the role of social support in internalised stigma, only partially contradicts other findings in that social company does not necessarily equate to support. Also, this short term variance may not necessarily be connected with longer-term changes in internalised stigma.

In addition to supporting the association between reduced social support and higher internalised stigma, Chronister, Chou and Liao (2013) also noted a relationship between reduced support and higher perception of public stigma in a group of people participating in a community based rehabilitation programme. In other words, the less socially supported people were, the more likely they were to consider society stigmatising towards people with mental health issues. In a model of stigma internalisation both emotional and tangible forms of social support were found to mediate the effect of wider societal stigma on internalised stigma and in turn recovery. Similar to Lysaker et al. (2007) this suggests social support may have a positively buffering effect against the internalisation of public stigma and that the internalisation of perceived stigma may operate through social support.

While being in receipt of social support was generally associated with reduced internalised stigma, in this review there was also limited evidence to suggest that providing social support may have beneficial effects against internalised stigma for people affected by mental health issues (Cabassa, Andel and Whitley 2013; Ahmed et al. 2013).

Based on their findings that reduced activity in people with psychosis was strongly associated with higher internalised stigma, but not with other measures of illness appraisal, Moriarty et

al. (2012) suggest the need for a greater availability of psychological interventions. This finding is of relevance to this review in that the measure of activity included an assessment of the level of social contact involved in the reported activity. Limited support for the role of specific interventions in relation to internalised stigma and social support was provided by Lucksted et al. (2011) in their pre-post study of a nine week group programme. 'Ending Self-Stigma' included lectures, sharing of personal experiences, skills development and group support with 34 participants in receipt of community-based services. On completion participants reported significantly reduced levels of internalised stigma compared to base-line as well as significantly increased levels of social support, offering some support for the interconnectedness of social support and internalised stigma. However, the small sample, lack of control group and absence of analysis in relation to the potential mechanisms of change make it hard to draw firm conclusions from this study. Elsewhere, group dynamics along with the development of therapeutic relationships were found to be important elements in a qualitative study of the processes underpinning the Narrative Enhancement and Cognitive Therapy intervention which was designed to reduce internalised stigma (Roe et al. 2010). The sharing of experiences and peer support in the group generated a strong inter-group alliance and was believed to contribute to a more positive sense of identity for individual participants.

In summary, there is considerable evidence from an internationally diverse range of studies that higher levels of social support play a role both in protecting people from internalizing stigmatizing attitudes and in buffering against the negative effects of stigma. There is also evidence to suggest that reduced social support may also precede and influence the internalisation of stigma.

2.4.4. Characteristics and perceptions of relationships

A second group of studies considered various aspects of the perception of social relationships in the context of internalised stigma. These studies generally offered a more nuanced assessment of the characteristics and subjective experience of social relationships than those in the previous group, which were focused more on the presence or absence of social support.

Considering the construct of loneliness, Switaj et al. (2014) demonstrated that it was both associated with higher internalised stigma and that it also fully mediated the positive relationship between internalised stigma and depression. In other words, the subjective sense of loneliness was shown to control the circumstances in which internalised stigma negatively impacted depression.

Campellone, Caponigro and Kring (2014) reported that people experiencing psychosis who perceived they had power and influence in social relationships had significantly lower levels of internalised stigma and increased stigma resistance, which was measured using a subscale of the ISMI (Boyd Ritsher, Otilingam & Grajales 2003). Stigma resistance, which evidence suggests is a separate construct to internalised stigma (Sibitz et al. 2011b) and can be understood as challenging or deflecting negative beliefs associated with having mental health issues (Thoits 2011), was a stronger predictor of negative symptoms of psychosis than internalised stigma, accounting for close to half of the effect of social power on negative symptoms. This perhaps suggests it be more strongly emphasised in stigma reduction interventions. Cheang and Davis (2014) in a study of help seeking in students in Macao found that loss of face, which is concerned with preserving dignity and reputation in social roles and is seen as important in many Asian cultures, was significantly associated with both internal and public stigma.

Postulating that personality style may play some role in the internalisation of stigma Margetić et al. (2010) identified a positive association between harm avoidance and internalised stigma and a negative association with self-directedness. However, cooperativeness, the personality characteristic of greatest relevance to this review, was not associated with internalised stigma.

In a small qualitative study, care providers in community based residential services identified a need for residents to address internalised stigma to support fuller community and social integration. This finding was not replicated for those accessing support, who were more concerned with experienced social rejection (Wong, Metzendorf & Min 2006). However, this

could simply suggest a greater awareness of public stigma over internalised stigma amongst residents.

Together these results suggest that different aspects of the perception of social relationships, including perceived loneliness, sense of power in relationships and loss of face may play a role in the internalisation of stigma. While these findings are promising in terms of supporting a better understanding of internalised stigma, there is currently insufficient research in this area to genuinely synthesise findings and draw clear conclusions. The constructs relevant to this theme are nonetheless distinct from one another and worthy of consideration.

2.4.5. Close and intimate relationships

Stigma, its internalisation and consequent effects on self-esteem have been identified as one of the potential blocks to the formation of intimate relationships amongst people with significant mental health issues (Segalovich et al. 2013).

Some support for this theory was provided by a large scale interview-based study of sexual activity amongst people with significant mental health issues, who were randomly sampled from community and inpatient services in the United States (Wright et al. 2007). Difficulties in forming close relationships were described as being deeply connected with internalised stigma and were considered a block to sexual relations by 23% of respondents (n=60). An apparent compartmentalisation and separation of the sexual self was identified by the authors with the consequent reduction of intimate and long-term relationships described as a significant block to recovery.

Further support for a connection between internalised stigma and forming intimate relationships was found in a study which identified a negative relationship between internalised stigma and capacity for intimacy amongst people with a schizophrenia diagnosis living in community settings, however, this relationship was not observed for a subset of inpatient participants (Segalovich et al. 2013). While this might be explained to some extent by the higher levels of internalised stigma seen in the community group the reasons for this

difference were not fully explained. One possibility is that the hospital setting offered a more stigma neutral environment, given the shared experiences of mental distress amongst patients, which in turn offered less of a hindrance to relationship development. There may also have been more opportunities for intimacy in the inpatient setting.

Very limited longitudinal support exists for a connection between certain aspects of internalised stigma and intimate relationships. Stewart, Lysaker and Davis (2013) applied a measure of internalised stigma and socio-sexual function at baseline and then repeated measures of socio-sexual function at five and twelve months to test associations over time amongst a sample of veterans in receipt of day treatment for schizophrenia. This showed that the social withdrawal subscale of ISMI (Boyd Ritsher, Otilingam & Grajales 2003) was negatively associated with socio sexual function concurrently and prospectively, which is perhaps not entirely surprising given relational intimacy is unlikely to be encouraged by social withdrawal. Findings for the two other included ISMI subscales were more mixed over time. Overall, it is not possible to draw any conclusions about the role of internalised stigma in intimate relationships from this study as two ISMI subscales were excluded.

In summary, there is very limited evidence for an association between internalised stigma and intimate or sexual relationships. One study suggests any associations may be dependent upon the environment in which relationships take place.

2.4.6. Group identification and participation

A further set of studies in this review concerned internalised stigma and social relations in the context of both group participation, e.g. mutual support group membership, and group identification. Research on group identification has been influenced by wider theory which suggests that identification with a group of people who share a stigmatized identity can positively influence how individuals respond to public stigma (Porter & Washington 1993), potentially through a collective process of stigma resistance and stereotype rejection (Branscombe, Schmitt & Harvey 1999).

Two studies tested a model of stigma internalisation processes in which group identification and perceived legitimacy of discrimination were proposed to play important roles, as originally proposed by Corrigan and Watson (2002). However, Rüsch et al. (2006) failed to find any relationship between group identification and self-esteem or empowerment (which they considered proxy measures of internalised stigma). However, in the absence of the use of any validated measure of internalised stigma it would be unwise to read too much into this finding.

More in line with wider theory on group identification, Watson at al. (2007) demonstrated a negative association between group identification and both stereotype agreement and stereotype self-concurrence. These are two of four elements, along with stereotype awareness and self-esteem decrement, in the Corrigan, Watson and Barr (2006) model of internalised stigma. However, in a series of mediational models the effect of group identification on stereotype self-concurrence was fully mediated by stereotype agreement. Additionally, the positive effect of group identification on self-efficacy was fully mediated by stereotype self-concurrence. This suggests, in turn, that positive effects derived from group identification against stigma may be contingent upon the extent to which people agree with stereotypes and on the extent to which they have already internalised those stereotypes.

In a longitudinal study examining the impact of stigma on service use, Rüsch et al. (2009) found that while high internalised stigma predicted hospital admission, strong in-group identification was associated with increased use of mutual support groups. Examining the role of such groups, Corrigan, Sokol and Rüsch (2013) identified that internalised stigma, group identification and both size of, and satisfaction with, social support network were all independently associated with quality of life. However, only group identification was significantly associated with mutual support group participation. That group identification is associated with mutual support group participation is perhaps not too surprising given people are unlikely to want to participate in a group of their peers if they do not identify with them. However, the lack of association between internalised stigma and mutual support group

participation raises questions about whether such groups may improve stigma responses for some while worsening them for others. Similarly, in describing their finding that participation in online support groups did not influence internalised stigma, Lawlor and Kirakowski (2014) proposed that participation in such groups might actually be a form of social avoidance for some, rather than a space in which to challenge stigma.

Further evidence of a complex relationship between groups and internalised stigma was provided by Crabtree et al. (2010) who demonstrated that, in the absence of the stigma coping mechanisms of stereotype rejection, stigma resistance and social support, group identification actually had a negative effect on self-esteem. Similar to Watson et al (2007), this suggests that anticipated benefits of group membership may in fact be contingent upon the presence of positive stigma coping strategies.

The largely cross-sectional nature of these findings makes it hard to draw firm conclusions on causality or the temporal order of effects. However, there is sufficient evidence to suggest that the relationships between internalised stigma and group identification and participation are complex and worthy of further investigation. It is perhaps understandable that if someone is aware of, agrees with and then internally applies negative stereotypes about people with mental health issues (i.e. the process of stigma internalisation) that they may be unlikely to derive benefit from identifying with people affected by mental health issues or from participating in group activities with them. This may be even more the case in the absence of stigma coping strategies. This, and the finding that in certain circumstances group participation can have negative consequences, suggests there is some urgency to better understanding the relationship between internalised stigma and groups.

2.4.7. Social factors in service use

Stigma is routinely described as a barrier to seeking help from mental health services (Clement et al. 2015) and some studies have considered the specific role of internalised stigma within that. Of particular relevance to this review were studies concerned with therapeutic

relationships as well as those concerned with the role of internal stigma and relationships in accessing or receiving help.

Turning firstly to accessing services, Nam et al. (2013), in a meta-analysis of 19 studies about college student help seeking for mental health issues, found that internalised stigma had the largest effect size of all included variables, being negatively correlated with help seeking (r = -.63, p < .001). Social support was also positively associated with help seeking but with a much smaller effect size (r = .13, p < .001).

Studying help seeking amongst minority ethnic students, Cheng, Kwan and Sevig (2013) demonstrated a complex inter-relationship between internal stigma, help seeking and ethnic identity. They found that a higher other group orientation, i.e. the extent to which people felt comfortable with those from other ethnic groupings, predicted a lowered level of internalised stigma in relation to help seeking and that higher perceived discrimination on the grounds of ethnicity predicted higher internal stigma. The perception that close social contacts held stigmatising attitudes also played a role in hindering help seeking. It is possible that perceived discrimination on the ground of ethnicity may have an additive effect in relation to internal stigma.

Two studies considered the role of internalised stigma and social relationships on quality of engagement with services. In a qualitative study of pharmacy services internalised stigma was identified as an impediment to helpful engagement with pharmacy staff and medication adherence (Knox at al. 2014). Positive relations with pharmacy staff were suggested as a useful means to minimise this impact and improved training to raise awareness of stigma and improve communications skills was proposed. In a study of psychosocial rehabilitation programme engagement Fung, Tsang and Corrigan (2008) found internalised stigma to be negatively correlated with both programme attendance and participation while conversely social self-efficacy was positively associated with attendance and participation. Associations between social self-efficacy and internalised stigma were not reported.

The remainder of included studies within this theme considered the relationship between stigma elements and the quality of relationship between people in receipt of services and practitioners. This therapeutic alliance has been shown to be a predictor of outcomes and a number of studies considered the potential role of stigma in influencing its strength.

Describing the importance of establishing strong therapeutic relationships in the initial consultation between people experiencing depression and their GP, Nolan and Badger (2005) in a qualitative study identified that some who present with depression, particularly those with low self-esteem, can have a tendency to self-stigmatise, potentially diminishing recovery. However, empirical evidence on a link between therapeutic relationship and internalised stigma is mixed. Bjorkman, Svensson and Lundberg (2007) reporting on the psychometric properties of the Swedish language version of the Perceived Devaluation and Discrimination Scale, an early stigma measure (Link 1987) whose validity as a measure of internal stigma has been questioned (Brohan et al. 2010b), found no significant correlations with therapeutic alliance. Chen, Wu and Huang (2014) also failed to find a predicted association between internalised stigma and therapeutic alliance. Counter to expectations in a longitudinal study of psychotherapy, Kendra, Mhor and Pollard (2014) found that as internalised stigma increased between sessions therapeutic relationships actually improved. It is possible that as people felt a greater degree of internalised stigma outside of treatment, therapy offered a safe and non-stigmatising space for people to come to terms with their wider feelings of exclusion, enhancing therapeutic alliance. Alternatively, as therapeutic alliance improved people may have felt a greater degree of safety in which to disclose feelings of internal stigma.

In the only study to include a measure of attachment style identified in this review, Kvrgic et al. (2013) predicted that internalised stigma would be negatively associated with therapeutic alliance independent of avoidant attachment style. Consistent with this they found that increased internalised stigma undermined therapeutic alliance in people experiencing psychosis, independent of the known adverse influence of negative symptoms and

independent of avoidant attachment style. Associations between attachment style and internalised stigma were unfortunately not reported.

In a study on the impact of case managers on quality of life both internalised stigma and working alliance were significantly associated with quality of life, the former negatively and the latter positively (Kondrat 2012). Case managers were found to have a moderating effect on the relationship between internalised stigma and quality of life. Some appeared to mitigate the negative effects of internalised stigma on quality of life while others appeared to amplify them. Case managers were not, however, found to impact upon the relationship between internalised stigma and working alliance. In other words, certain practitioners seemed able to intervene against the negative effects of internalised stigma on quality of life and this effect was not explained by working alliance.

In summary, internalised stigma and social support independently play a role in preventing people from seeking help from services. Additionally, the attitudes of close social contacts may play some role in influencing internalised stigma towards help seeking, as again, may the perception of relationships. There is very limited evidence for the role of internalised stigma in diminishing engagement with services in the context of social relationships but there is no consistent evidence on the connection between internalised stigma and therapeutic relationships in services.

2.5.Discussion

Stigma in all its forms exists in a social context and is fundamentally a socio-relational phenomenon. It follows that generating new knowledge about the potential role of social and relational factors in the internalisation of stigma may be beneficial. However, due to the diverse nature of the constructs included in some social factor groupings it proved hard to synthesise findings and draw firm conclusions. From this review there is strongest evidence for the link between internalised stigma and social support, but it is possible that this is because most literature can be identified in this area. Notwithstanding that caveat, low levels of social support are consistently linked with higher levels of internalised stigma and higher

levels of social support are connected with improved coping strategies. However, given the largely cross-sectional nature of the included studies it remains unclear as to whether internalised stigma is responsible for diminishing social support or whether reduced social support encourages the internalisation of public stigma or both.

There is also evidence to suggest that beyond the mere presence or absence of social support the characteristics and perceptions of social relationships may also be connected with the internalisation of stigma. For example, perceptions of loneliness, power, 'face,' and higher other group orientation have all been shown to play some role in internal stigma. While these findings have not been tested longitudinally, which could provide a clearer sense of causality and ordering of effects, they do offer encouragement to the current study, which similarly seeks to examine internal stigma and relational dynamics and perceptions through the lens of attachment theory. This allows for an assessment of the subjective experience and perception of social relations rather than a simple measurement of their presence or absence, which is important given wider evidence that the perception of social support is more important in determining health outcomes than actual received support (Uchino 2009).

There may also be merit in further research on the social context in which internalised stigma occurs. Four studies considered the role of hospital admission with higher levels of internal stigma predicting admissions (Rüsch et al. 2009) and increased admissions being associated with reduced social support (Link et al. 1989; Cerit et al. 2012). Counter to this negative trend internalised stigma was also found to be less of a hindrance to relationship formation in hospital than it was in community settings (Segalovich et al. 2013).

There is no consistent evidence on the connections between internalised stigma and social and relational factors in the context of groups. It seems reasonable to theorise that a strong in-group identification could usefully help challenge internalised stigma providing, amongst other things, a sense of unity and common cause. Indeed this relationship has been empirically supported in research on other stigmatised groups and much work has been done test this

theory in the context of mental health (Corrigan & Watson 2002). However, from evidence reviewed here there is little support for this position. Indeed some findings would seem to suggest that group identification can have both negative and positive consequences in relation to both self-esteem and internalised stigma (potentially at the same time) and, as a consequence, careful attention should be paid to interactions and dynamics within groups (Crabtree et al. 2010). Positive outcomes from mutual support groups seem to be partly contingent upon the extent to which members have internalised stigma and on the availability of coping strategies. This suggests that consideration should be given to targeting such interventions accordingly. This is all the more important given the possibility that group participation and identification, something which is often encouraged through mental health services and service user groups, could in some circumstances lead to negative outcomes, dependent upon internalised stigma.

A similarly confusing picture emerges when we turn to issues related to service use. There is evidence that level of internalised stigma is a negative predictor of help seeking and that the attitudes of close social contacts can play a role in determining internalised stigma towards help seeking. However, when considering therapeutic relationships the evidence is less clear. While one might expect high levels of internalised stigma to predict poor therapeutic alliance this was not well supported. Indeed, in two studies increased internalised stigma was found to be associated with improved therapeutic relationships, perhaps suggesting that the relatively safe therapeutic environments might offer a space in which to overcome the negative consequences of stigma, hence improving relationships. There is hopeful, but very limited, evidence for the potential for individual practitioners to ameliorate the negative effects of internalised stigma on quality of life.

Turning back to the role of social support in internalised stigma, of note are the findings of Lysaker et al. (2007) who suggest social support plays a mediating role in the process of stigma internalisation, buffering the negative effects of public stigma. This would suggest that research which aids understanding of what facilitates or inhibits people's access to that buffer

might inform approaches to better understand and address internalised stigma. Attachment theory, which proposes that people develop mental representations of the self in relation to others as a result of early experiences of care (Bowlby 1969), may offer a useful lens through to consider why people are more or less prone to internalised stigma.

2.5.1. Implications of this review

The literature in this review suggests that new approaches need to be taken to understanding and addressing internalised stigma. While the consequences of internalised stigma are real and well evidenced the underlying processes are poorly understood (Livingston & Boyd 2010). In response some commentators have suggested that focusing on component parts of the internalised stigma construct, rather than seeking to test it is a single construct may be more helpful in understanding the processes at work (Rüsch et al. 2009). It has also been suggested that focusing on why some people appear to be more resistant to the internalisation of public stigma could be a useful focus (Rüsch et al. 2006; Thoits 2011) and that interventions might usefully seek to bolster this resistance (Campellone et al. 2014). Overall a relatively small number of variables have been considered as relational contributors to, or consequences of, internalised stigma. The work of Switaj et al. (2014) offers an interesting exception where loneliness fully mediated the effect of internalised stigma on depressive symptoms. This suggests more attention be paid to people's perception of social relations, something which is made possible through an assessment of attachment style. Also atypical in this review is the work of Margetić et al. (2010) which suggested that the internalisation of stigma may be as contingent upon relatively fixed personality type and temperament as it is upon the more variable socio-relational context. The role of personality has also been suggested as a potentially profitable focus for research on stigma resistance (Sibitz et al. 2011b; Margetić et al. 2010), and attachment experiences provide one potential pathway to personality development (Bowlby 2005).

Adult attachment style is developed as a result of early interactions with primary caregivers, whereby internal working models of self in relation to others develop (Bowlby 1969;

Mikulincer & Shaver 2012). As with personality this suggests a certain degree of predetermination of adult relational style which might reasonably be assumed to play some role in stigma experiences and processes (Mikulincer & Shaver 2012). Of particular relevance is evidence demonstrating that secure attachment facilitates the exploration of social opportunities at the same time as providing a buffering effect at times of threat (Bowlby 2005; Mikulincer & Shaver 2012). Longitudinal evidence also shows that people with secure attachment have higher levels of perceived social support than those with insecure attachment styles (Graves et al. 1998), which is connected with a range of positive health outcomes (Uchino 2009; Stanton & Campbell 2013) and, from this review, appears to play some role in internalised stigma. However, it is notable that just one of the reviewed studies included a measure of attachment style without reporting on its association with internalised stigma (Kvrgic et al. 2013). This is despite the fact that attachment is being increasingly applied in wider mental health research (Berry, Danquah & Wallin 2014; Bucci et al. 2014; Gumley et al. 2014). The wider application of attachment theory in stigma research has the potential to offer new insights on the process of stigma internalisation. This could conceivably aid the identification of people who may be more prone to internalised stigma at the same time as informing the development of interventions to counter its negative effects.

2.5.2. Limitations of included papers

There is discussion in the literature about how internalised stigma is measured (Livingston & Boyd 2010), with significant cross-over between stigma domains identified within internalised stigma measures (Brohan et al. 2010b). It also notable that some of the studies included in this review chose not to use a recognised measure of internalised stigma, opting instead for proxy or bespoke means of assessment. This raises some questions over the validity of the measurement of internalised stigma in those studies.

The vast majority of studies included in this review were of cross-sectional design. While many applied complex analysis, including structural equation modelling and mediation or moderation analysis, it remains hard to draw firm conclusions about causal relationships

between variables. For example, whether reduced social support precedes or is a consequence of internalised stigma (or both).

Finally, future reviews should consider the addition of the search term 'temperament' to supplement 'attachment' and 'personality.'

2.5.3. Methodological critique

Hunt and Brown (2017) suggest that systematic reviews are not inherently superior to other types of literature review and that they may be less well suited to the review of psychologically oriented research than they are to medical research, from where they originally developed. Systematic reviews, they propose, should only be used where the method is appropriate to the aims of a study, and then with the utmost diligence (Hunt & Brown 2017). It is possible that in this review the wrong methodological approach was employed and that a more flexible narrative review may have been more appropriate. In particular a scoping review, which Moher and colleagues (2015) describe as being useful in providing an overview of a broad range of studies, may have been more fitting.

While the decision to thematically group papers at an early stage was made as means of managing the large volume of heterogeneous studies identified, the consequence was that the initial review of relationships across studies happened at a group level. This runs counter to recommendations on the conduct of narrative synthesis provided by Popay and colleagues (2006), which specifies that relationships should initially be assessed within and between all included studies. They also suggest that any sub-group analysis should only be attempted where supported by an *a priori* rationale for an expected difference between groups, which was not the case in this review.

For a robust systematic review it is also important to formulate a clear and answerable question (Popay 2006; Petticrew & Roberts 2010). The current review may have been overly ambitious in trying to answer a question which was too broad, making narrative synthesis of a heterogeneous set of included extremely difficult. While the decision to ask a broad question

was informed by initial scoping of the literature, which suggested a very limited evidence base on the relationship between attachment style and internal stigma in adults with experiences of mental health problems, alternative approaches could have been considered. One alternative would have been to broaden populations included in the review so that all groups subject to stigma and discrimination were assessed. Doing so would have included a number of studies which have examined specific relationships between attachment and different forms of stigma in wider groups (see for example: Elizur & Mintzer 2003; Riggs et al. 2007; Wells and Hansen 2003; Zakalik & Wei, 2006, Cheng & Mallinckrodt, 2009; Zhao et al. 2015; Gencoglu et al. 2016). This may have allowed for a more focused question on attachment and stigma to be asked which may have more usefully informed the wider study.

While the method of quality assessment was selected for its potential to assess studies applying a range of methodologies, in practice it was less well-suited to the assessment of qualitative papers and overall results also strongly tended towards a medium rating, suggesting a possible lack of sensitivity. Applying an alternative method of quality assessment may have allowed for a more critical assessment of included papers than was possible in this review. Additionally, there was no independent review of study selection possible, meaning it was not possible to assess reliability and potential bias in this regard (Meline 2006).

2.6.Conclusion

A novel systematic review of literature addressing internalised stigma in mental health and social and relational factors has been completed. This has identified a broad range of literature falling under a number of key themes. Strongest evidence was found for the negative association between social support and internalised stigma. Findings were mixed and at times contradictory across all themes, to varying degrees. This demonstrates both the complexity of internalised stigma and a lack of conceptual clarity in relation to the construct. Nonetheless, internalised stigma, as it is understood and measured, is a disabling phenomenon which significantly limits life chances and recovery for people affected by mental health issues. There is therefore some urgency to better understanding its underlying processes and

mechanisms in the context of social relationships and the case for new and different approaches to those employed to date is strong.

There were indications that a broader set of variables connected with social relations should be considered to better understand processes of stigma internalisation. Many studies employed crude measures of social relatedness and failed to address the potential role of personality characteristics or past experiences in stigma internalisation. Just one study considered the role of attachment style and, given wider evidence of its potential role in stigma processes out with the context of mental health, it should now be considered as a potential contributor to the internalisation of mental health stigma.

3. METHODS

3.1.Rationale

This study was motivated by a number of factors. Firstly, there is strong evidence to show that internalised stigma is a disabling phenomenon associated with a range of negative outcomes (Livingston & Boyd 2010; Yanos, Roe & Lysaker 2010; Watson et al. 2007). However, there is also a lack of conceptual clarity in relation to the construct of internalised stigma. This includes limited evidence to explain the processes of stigma internalisation (Livingston & Boyd 2010; Hasson-Ohayon et al. 2012) or its variable prevalence amongst people affected by mental health problems (West et al. 2011). To date, research on internalised stigma has failed to consider the potential role of early childhood experiences and their influence on later relational style, an approach suggested elsewhere as one potential means of better understanding mental health stigma (Smith 2013).

A review of literature on social and relational factors in internalised stigma has shown that strongest evidence exists for a negative association between social support and internalised stigma (see Chapter Two). The review also identified a need to test a wider variety of social-relational factors which might contribute to internalised stigma. This could allow for a more nuanced understanding of the processes underpinning the internalisation of stigma beyond that available through an assessment of the mere presence or absence of social support. One widely researched and applied approach to relational dynamics is attachment theory. It has been shown that perception of social support is in part contingent upon attachment style (Graves et al. 1998) but there is very little research on the potential role of attachment style in the internalisation of stigma related to mental health problems. Given the lack of evidence on the effectiveness of interventions to counter the effects of internalised stigma (Wood et al. 2016b; Mittal et al. 2012; Griffiths et al. 2014), there is a need to review the variables considered as potentially contributory to stigma processes. Attachment style offers a promising candidate in this respect. Support for its potential as a contributor to internalised stigma may be gleaned from evidence in relation to the role of attachment style in stigma

processes amongst other groups of people who are prone to stigmatization (Wells & Hansen 2003; Zakalik & Wei 2006; Riggs, Vosvick & Stallings 2007), and from a theoretical assessment of how a person's security of attachment might determine their response to perceived or experienced stigma (Mikulincer & Shaver 2012). There is also indirect support for the investigation of attachment style from emerging evidence of its role in wider aspects of mental health. These include connections between attachment and recovery and coping style (Berry, Danquah & Wallin 2014; Gumley et al. 2014), service design (Bucci et al. 2014) and help seeking (Cheng, McDermott & Lopez 2015).

This study, therefore, aimed to test the theory that adult attachment style plays a role in the internalisation of public stigma. Specifically, it was suggested that that both anxious and avoidant attachment styles would play a moderating role in the internalisation of perceived public stigma (Figures 3.1 and 3.2).

Figure 3.1 The moderating effect of anxious attachment style in stigma internalisation

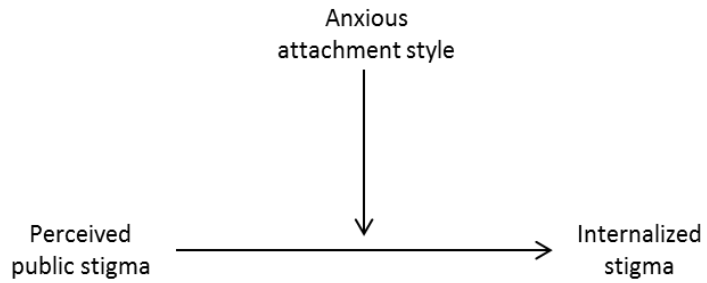
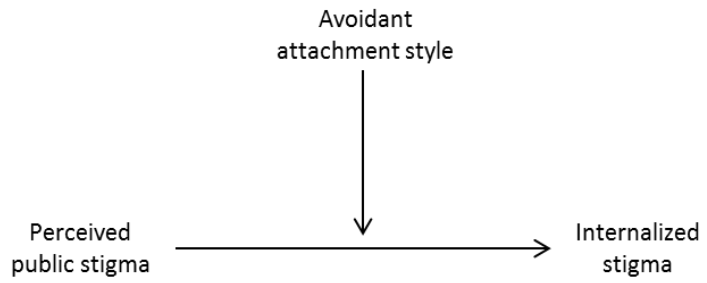


Figure 3.2 The moderating effect of avoidant attachment style in stigma internalisation



A number of control variables were included to examine whether any influence of attachment style on the internalisation of stigma was independent of their effects. Notably a measure of

mood was included given the potential influence of elevated or depressed mood on perceptions of stigma (Switaj et al. 2014) and relatedness (Kamenov et al. 2016). This variable was selected, over other potentially confounding psychiatric variables given its relative universality in a mixed convenience sample. Measures of work and social functioning, mental health service use and time since initial diagnosis were also included given wider evidence that the level and duration of psychiatric impairment may play some part in stigma internalisation (Lysaker et al. 2007; Switaj et al. 2009; Cerit et al. 2012). A measure of self-esteem was included given it is the psychosocial variable most consistently associated with internalised stigma (Livingston & Boyd 2010). Self-esteem decrement as a result of internalised stigma is argued to be contributory to a cycle of reduced self-set goals impacting recovery (Corrigan, Watson & Barr 2006; Corrigan, Larson & Rüsch 2009). From an attachment perspective it has also been proposed that people with secure attachment styles may be less prone to the effects of stigma than people with insecure attachment styles (Mikulincer & Shaver 2012). This may be as a consequence of having more internal resources to draw upon in the face of other people's negative attitudes, allowing for the for self-validation of identity and self-worth (e.g., Zakalik & Wei 2006; Elizur & Mintzer 2003).

3.2.Theoretical framework

Defining a theoretical framework for a piece of research can be understood as one of the most important aspects of any a study and has been likened to a blueprint (Grant & Osanloo 2014). Ontological positioning refers to having a view on what constitutes reality and how we may understand that reality (Bruner 1990). Epistemology on the other hand concerns the study of the nature of knowledge and the means we use to obtain knowledge (Schwandt 2001). Carter and Little (2007) describe a shorthand description for epistemology as the justification of knowledge. These two concepts are closely intertwined in that an ontological position of human reality should inform the means chosen to generate valid knowledge, according to that ontological position. In combination ontology and epistemology underpin the theoretical framework and both are made visible in the methodology adopted to study a particular topic

(Carter & Little 2007). Methodology can be understood as a theory of how research should proceed and justification for the methods applied, as opposed to the specific methods themselves (Kaplan 1964).

An objectivist ontological position was adopted for the current study, which is founded on the principle that facts exist independently of subjective human interpretation and influence (Bruner 1990). In other words reality is viewed as being objective and separate from the actors who operate within it. This realist perspective suggests that humans are constrained and governed by the social orders and constructs in which they exist (Carter & New 2004). In the current study this perspective suggests that the social reality for adults affected by mental health problems in the United Kingdom exists out with their subjective experience and that it is possible to observe and measure that social reality through the use of validated measures (Section 3.7). A realist perspective suggest that patterns can be observed in the social world and that these patterns are observable and measurable (Carter & New 2004). In the current study this means that there is a philosophical commitment to the principle that various social constructs including perceived stigma, internalised stigma and attachment style exist out with the experience of the people affected by them and that they can be operationalised to allow for the deductive testing of pre-determined hypotheses on their interaction. Such hypotheses are based on theory, which in the current study is described in the introduction (Chapter 1) and the preceding rationale (Section 3.1). This theory suggests that there are grounds to believe that the interaction between the perception of mental health stigma and its internalisation may to some extent be governed by attachment style.

Testing derived hypotheses (Section 3.3) on these relationships will be used to inform knowledge using methods which, as far as possible, are objective, replicable and value free. As an objectivist researcher I also seek to remain independent of the social reality I am investigating, as opposed to being involved in its construction. The selection of validated measures and the reporting of their psychometric properties (described in Section 3.7) along with the careful description of the methods, including a justification of the required sample

size (Section 3.6.2) and a detailed description of data collection, preparation and analysis (Sections 3.8 and 3.9), ensures the study is both scientifically rigorous and replicable.

3.3.Hypotheses

This study employed a cross-sectional design with internalised stigma as the dependent variable. Independent variables included perceived stigma, attachment style (anxious and avoidant), self-esteem, mood (depression, wellbeing and activation) and work and social function. A number of potentially confounding sociodemographic and psychiatric variables were also tested. These included age and gender, employment status, use of psychiatric services and time since initial diagnosis. The main hypotheses tested were as follows:

1. Perceived public stigma will be positively associated with internalised stigma.

2. Anxious attachment style will be positively associated with a significant amount of variance in internalised stigma when controlling for the effects of other potentially confounding variables.

3. Avoidant attachment style will be positively associated with a significant amount of variance in internalised stigma when controlling for the effects of other potentially confounding variables.

4. The positive relationship between perceived public stigma and internalised stigma will be moderated by anxious attachment style.

5. The positive relationship between perceived public stigma and internalised stigma will be moderated by avoidant attachment style.

3.4.Research design

Given the aim of this study was to deductively test theory in relation to the role of attachment style in the internalisation of stigma, quantitative methods were adopted for the study. Such empiricist methods are in keeping with the theoretical framework described above in that they seek to demonstrate that social behaviours, in this case the internalisation of stigma, can be

reduced to objective and generalisable phenomena (Carter & New 2004; Bowling 2009). It is important to be clear that quantitative methods are underpinned by a number of assumptions (Bryman 2012). These include the assumption that it possible to objectively examine the social world while being part of it and that it is possible to generalise findings derived from a sample of people to a wider population of interest.

Quantitative methods allow for the exploration of relationships between primary variables and for consideration of the potential role of extraneous factors in a proposed model (Bryman 1984). This means that in addition to considering the potential role of attachment style in the internalisation of perceived public stigma it is also possible to assess whether secondary variables, like mood, age, gender and function, are playing some role in those relationships. In other words, it becomes more possible to disentangle and control for the potential effects of secondary contributors in the process of stigma internalisation. While the proposed model of stigma internalisation and attachment style is novel in the context of mental health, the constructs included within that model are well understood and validated measures exist which allow for their assessment. A further pragmatic contributor to the selection of methods was an awareness from the review of literature for this study (Chapter 2) that most studies in the field of internalised stigma have applied quantitative methods. This allows for the closer comparison of findings from this study with existing evidence.

3.4.1. Data collection

All data were collected via an online survey developed using BOS software (University of Bristol 2017). The survey is presented in its entirety and as it appeared online in Appendix D. This approach was chosen over other possible methods given the potential to reach a reasonably large number of people while offering ease of access and convenience for participants as well as anonymity, which is important given the sensitive nature of some of the constructs.

Online surveys, which have been shown to provide a reliable alternative to paper based approaches (Rübsamen et al., 2017) are commonly used to research online communities,

given they are comfortable with the medium and online environment (Wright 2005). Since much of the recruitment took place via the social media platform Twitter (see 3.4.1), which includes a large and active online community of people affected mental health problems (Shepherd et al. 2015), this provided further rationale for this approach being employed, in addition to the ease with which participants recruited via Twitter could access the survey via an included link.

Evidence for the acceptability of online surveys for research on internal stigma was derived from their application in similar studies (for example: Vogel et al. 2013; Held & Owens 2012; Zakalik & Wei 2006; Lanin et al. 2015). This included previous positive experiences of their application in a pilot study on internal stigma in which the lead researcher on the present study was involved (Mackay et al. 2015). Further rationale may be gleaned from Corrigan and colleagues (2015) suggestion that, as a result of the privacy afforded by online surveys, there may be a reduction of social desirability bias in responses about stigma, a known issue in the field (Link et al. 2004; Corrigan et al. 2015).

There are though some potential disadvantages in this type of remote surveying including the lack of opportunity to probe respondents and an increased risk of missing data (Bryman 2012) and a potential for participation bias, when compared to other means of survey data collection (Heiervang & Goodman 2010).

Short versions of validated measures were used, where available, to minimise the potential for participant burden, a known issue in online survey research (Guin et al. 2012; Edwards et al. 2009). An additional method used to support engagement was the use of messages at the foot of each survey page to give an indication of progress and to encourage completion. An example prompt read: “The processes that underpin stigma are poorly understood. This research is designed to help with that. Just two short set of questions to go.”

To assess functionality and acceptability the survey was piloted with eight people providing feedback across two test versions. Several changes were made to the design and wording of

the survey as a result of feedback. These included removing the word 'benefit' from participant information (to avoid any unintentional association with contemporaneous changes to the welfare benefits system), fixing a non-functioning internet link, alterations to the wording introducing one of the included measures and also alterations to the design of input fields. In addition, a clearer explanation of the rationale for the inclusion criteria was also added to the survey and significantly one early tester helpfully commented on the lack of questions about current employment status, which was subsequently added to the survey as a result.

Estimates of the time taken to complete the survey during piloting were between fifteen and thirty minutes and feedback suggested that respondent burden was minimal.

3.5.Ethical considerations

The study was reviewed by the Faculty of Health and Medicine Research Ethics Committee and approved by the University Research Ethics Committee at Lancaster University.

A number of ethical issues were considered in the development of the study. A known challenge in internet mediated research is that participants may provide consent that is not fully informed (BPS 2013). In particular, evidence suggests lengthy text on web pages can increase the likelihood of participants notionally agreeing consent without having fully considered participant information (Birnbaum 2004). Consequently, participant information was split over a number of pages to increase the likelihood that people fully considered the information before agreeing to participate (see also Appendix D):

1. An opening page provided a welcome and brief background to the study. This included the purpose of the research, what was involved for participants and details on eligibility. To progress beyond the opening page potential participants were asked to check boxes identifying that they meet all three inclusion criteria.

2. An ‘important background information’ held the majority of participant information, including details on confidentiality and security, withdrawal, how to report concerns or ask questions and gains from participating.

3. On a final consent page potential participants were required to check all six boxes to demonstrate their fully informed consent before proceeding to the survey. At this stage the opportunity to review participant information displayed on either of the previous two pages was explained.

There are risks of emotional distress in any survey based research (Labott et al. 2013) and where data is collected remotely these are compounded by it not being possible for the researcher to directly monitor emotional responses to the completion of measures (BPS 2013). Consequently, it is very important that risks from participation are clearly described, and in the current study it was made clear that included measures invited participants to reflect on sensitive areas where there was a risk of distress. For example, the Internalized Stigma of Mental Illness Brief scale (Appendix B) asks people to reflect on the potentially negative impact that having a mental health problem has had on their life. Similarly, the Psychosis Attachment Measure (Appendix B) asks participants to reflect on potentially difficult feelings about relationships with other people. Contact details for both the researcher and for support organisations were also accessible throughout the survey (and not just at the end of the survey). Survey testers (see 3.3.1) were also asked to report on any distress experienced as a result of survey completion and no negative reports were received at that stage, offering some assurance as to the acceptability of the survey.

Respondent burden is a known issue in online survey research (Guin et al. 2012; Edwards et al. 2009). In order to minimise burden short versions of validated measures were used, where available. Survey testing prior to the study also allowed for an assessment of potential burden and informed the estimation of completion time provided to participants at the start of the

survey (20 to 25 minutes). A clear indication of progress was also provided at the foot of each page of the online survey.

Participants were able to end their participation in the survey at any point. It was though made clear to participants that in the event they did choose to withdraw data every effort would be made to do so but it would not always be possible. In the event no participants chose to withdraw data.

Files were encrypted and saved on the researcher's password protected computer, ensuring that only the researcher and two academic supervisors would have access to research data, which it was explained would be destroyed after ten years.

3.6.Participants

The research population for this study comprised people who met the following inclusion criteria:

1. Over 18 years of age;
2. Living in the United Kingdom;
3. With experience of personally using secondary mental health services within the past two years.

Use of secondary mental health services within the last two years was considered a reasonable means of ensuring participants had recent experience of significant mental health problems. People with a caring role for someone else affected by mental health problems, who did not have their own experience of significant mental health problems, were not included. In keeping with the intentionally transdiagnostic and inclusive approach to the research design, there were no other exclusion criteria.

It is not possible to accurately describe the size of the overall United Kingdom population from which the sample in the current study was drawn. However, some indication can be derived from data for England which shows that in 2012/13 there were around 1.7 million

people over 18 in contact with specialist mental health services. This represented around 1 in 28 people in England at that time (Health and Social Care Information Centre 2014).

3.6.1. Recruitment procedure

Participants were recruited to the study using a number of approaches. These included recruitment via the social media platform Twitter, web-based recruitment via mental health awareness and membership organisations and recruitment through direct communication with staff of a social care organisation.

Evidence of the targeted use of Twitter for research purposes has been limited to date, but it has been shown to have considerable potential for recruitment (O'Connor et al. 2014). Tweets (i.e. messages sent via Twitter) were sent from the researcher's account, which at the time had something in the region of 1000 'followers' (i.e. people who subscribe to see tweet from another individuals account).

Considerable efforts were made to increase engagement with tweets. These included the use of an attached image to advertise the study and the use of appropriate hashtags, which have been shown to increase retweets (i.e. the re-sharing of a tweet) by 35% and 16% respectively (Rogers 2014). Efforts were also made to send tweets at peak times for twitter activity (CUCO 2013). Twitter policies (Twitter Inc 2016) and campaigning advice (Latentexistence 2013) were also followed to avoid being seen as posting annoying content (also known as 'spamming.') Steps taken in this regard included varying the content of tweets and making them attention grabbing, while minimising the number of tweets targeted at specific users.

Participants were also recruited via a number of mental health organisations. This included web-based promotion of the study in Scotland via the Scottish Recovery Network (mailing list email and online article) and the 'see me' national anti-stigma campaign (mailing list email). A number of smaller organisations also disseminated the call for participants through their networks and memberships, these included Bipolar Fellowship Scotland and HUG Action for Mental Health both of whom featured the call on their organisational Facebook pages. Efforts

to gain support from organisations based out with Scotland in order to ensure a broader sample were unsuccessful. This focus on Scottish recruitment was as a consequence of the researcher being based in that country and having well-developed contacts in the mental health service providing and using communities of which he was able to make extensive use. Consequent limitations in terms of generalisability to the wider population of interest across the United Kingdom are reviewed in Chapter Six.

The final strand of recruitment was via direct email communication with staff of the social care provider Penumbra. This included direct email communication to all staff across its 40 Scottish-based mental health services and a promotional article in a newsletter in which staff were encouraged to support service users to complete the online survey. This was intended to balance out potential bias in the sample whereby the online recruitment strategy would most likely have attracted people who were online literate as well as engaged with existing groups and networks. It was anticipated that people in receipt of social care services may have been less well connected, thereby generating a sample which was more representative of the wider population.

Given data were to be collected via an online survey and participation in such surveys is decided, at least in part, in the light of an assessment of the potential social and psychological gain from involvement (Fan & Yan 2010), the novel and important nature of the study area was emphasised throughout the informed consent process.

3.6.2. Sample

This study was designed to access a convenience sample of the wider population of interest. G*Power statistical power analyses software was used to calculate the required sample size (version 3.1: Faul et al. 2009). Based on an expectation of a medium effect size ($f^2 = .15$) in a multiple regression model with six predictor variables ($\alpha = .05$), a sample size of 95 participants was suggested. A medium effect size was selected based on its suggestion of potential clinical relevance.

A decision was made to maximise the sample size because it is generally agreed that moderation effects can be hard to detect in observational studies, particularly where variables are continuous (McClelland & Judd 1993; Shieh 2009). This is in part because moderation effects are calculated through the multiplication of the independent variable (*X*) and the anticipated moderator variable (*M*) which means any error in measurement is also multiplied reducing the statistical power of a model (i.e., the probability of a test correctly rejecting the null hypothesis). These combined effects can mean that failing to take account of variability of predictor and moderator variables can lead to under-estimation of required sample sizes (Shieh 2009), which remains a possibility in this relatively small study.

A further reason for over sampling was the potential for high rates of dropout (Hoerger 2010) and poor engagement (Edwards et al. 2009) with online surveys. Hoerger (2010) suggests 10% of participants in web based surveys can be expected to drop out instantaneously with a further 2% dropping out per hundred questions asked.

3.7.Measures

Brief demographics details were recorded including age, gender, employment status and psychiatric diagnosis, as well as time since initial diagnosis. Six self-report measures were also included. All measures are included in Appendix B with internal validity summarised in Table 3.1 for scales and subscales where relevant.

3.7.1. Internalized Stigma of Mental Illness Brief Version

The Internalized Stigma of mental illness brief version (ISMI-B: Boyd, Otilingham & DeForge 2014, see Appendix B) is a shortened version of the most widely used measure of internalised stigma (ISMI: Boyd Ritsher, Otilingam & Grajales 2003; Brohan et al. 2010), which is based on a social cognitive model of internalised stigma. The brief version of the scale was used in this study (Boyd, Otilingham & DeForge 2014). The ten items of ISMI-B were derived by selecting the two strongest items (based on external, internal, and judgmental item quality) from five subscales of the full version of the ISMI scale. The five subscales are alienation, discrimination experience, social withdrawal, stereotype endorsement and stigma

resistance. Alienation relates to indicators of a sense of isolation and loss. An example of a question from the alienation domain is: “Having a mental illness has spoiled my life.” The stereotype endorsement subdomain relates to the extent to which someone agrees with stigmatising attitudes found in the general public. An example item is: “Mentally ill people tend to be violent.” The discrimination experience subdomain assesses a person’s perception of the extent to which they have experienced discriminatory attitudes. For example: “People ignore me or take me less seriously just because I have a mental illness.” Social withdrawal relates to the extent to which someone feels they have removed themselves from social situations as a result of stigma. An example item is: “I don’t socialize as much as I used to because my mental illness might make me look or behave ‘weird.’” The stigma resistance subdomain, which is reverse coded, is a counterbalance to the other negatively valenced subdomains. An example item is: “People with mental illness make important contributions to society.”

Responses are recorded on a four point Likert type scale of agreement to calculate an overall score for internalised stigma. Higher scores represent higher levels of internalised stigma. It is not recommended to calculate subscale scores on this brief version of the measure (Boyd, Otilingam & DeForge 2014). The psychometric properties of the ten item version were tested using data from the validation sample used to test the full ISMI, with results cross-checked against a second data set. Based on original validation data the ten item version of the scale was found to have reasonable internal validity, albeit not as strong as the full version (Cronbach’s α scores of .75 and .90 respectively). In a cross validation data set internal consistency of the ten item version was found to be slightly higher (Cronbach’s α = .81). The brief version was also found to retain external validity through a test of correlation with measures of empowerment, depression, self-esteem, recovery and perceived discrimination (Boyd, Otilingam & DeForge 2014).

Due to a researcher error, one of the ten items of ISMI-B was omitted from the online survey meaning there was missing data for this item for all participants. The item was one of the two

that related to the social withdrawal domain. To assess the consequences of this omission, as far as possible the validation methods described in the development of the original tool were replicated. The nine item version of ISMI-B used in this study was found to have almost identical internal consistency to that found in the ten items psychometric testing. The analysis which led to this conclusion is described in Chapter Four.

3.7.2. Stig-9

Stig-9 is a measure of the perception of public stigma, assessing the extent to which people expect negative thoughts, attitudes and behaviours towards people affected by mental health issues (Gierk et al. manuscript submitted, see Appendix B). Item content was inspired by the well-established Perceived Devaluation and Discrimination Scale (PDD: Link 1987) as well as literature defining aspects of stigma which were not adequately covered in the PDD. Stig-9 was an attempt to improve on PDD, given its inclusion of outdated gender stereotypes as well as a strong emphasis on hospitalisation, which does not adequately relate to modern community-based mental health care (B. Gierk, personal communication 12th November 2014). Both the PDD and Stig-9 were shared with three people with experience of mental health issues in early selection stage by the researcher. All expressed a preference for the language and content of Stig-9 over PDD. This feedback and the brevity of the nine item Stig-9 led to its selection for this study.

Questions in Stig-9 include: "I think that most people take the opinion of someone who has been treated for a mental illness less seriously." Responses are provided on a four point Likert type scale of agreement. Higher scores represent an increased perception of public stigma.

Stig-9 was originally developed in German with the English version Stig-9 developed using a stepwise translation procedure. German items were translated into English (forward translation) followed by their translation back to German (backward translation). The backward translation was then compared with the German original version and if necessary, items were modified (B. Gierk, personal communication 19th January 2015).

In psychometric testing with 1024 outpatients in Germany (Gierk et al. manuscript submitted) good internal validity was demonstrated (Cronbach's α = .88) with confirmatory factor analysis revealing a unidimensional factor structure. Perceived stigma was also found to be positively associated with depressed mood demonstrating external validity. The current study replicated the high internal consistency for the scale.

3.7.3. Psychosis Attachment Measure

The Psychosis Attachment Measure (PAM: Berry et al. 2006, see Appendix B) is a self-report measure of adult attachment style. The 16-item PAM relates to thoughts and feeling in close inter-personal relationships and was based on existing measures of attachment (Bartholomew & Horowitz 1991; Brennan et al. 1998), adapted for use with people with experiences of psychosis. While many existing approaches to measuring attachment style use interview based approaches, self-report measures have been shown to have the capacity to provide a reliable assessment of attachment style in adults with mental health issues (Picardi et al. 2011). Specific adaptations for this population were the exclusion of questions in relation to romantic relationships, which were considered less relevant for this group than a general adult population.

While PAM was developed for people with experience of psychosis its validation with student populations (Berry et al. 2006) arguably demonstrates its wider utility. This along with its relative brevity and specific adaptation for people experiencing significant mental health issues made it a suitable choice for this study.

The PAM assesses two dimensions of anxious and avoidant attachment styles with eight items related to each domain. An example of a question relating to anxious attachment is: "I tend to get upset, anxious or angry if other people are not there when I need them." An example of a question in relation to avoidant attachment is: "I prefer not to let other people know my 'true' thoughts and feelings." Questions are answered on a four point Likert type scale of agreement. Higher scores represent a greater degree of anxious or avoidant (insecure) attachment style.

Initial validation suggested a two factor structure with a Cronbach α for the anxiety and domain of .82 and for the avoidant subscale of .75 (Berry et al. 2006). A second validation led to the replacement of two items, one from each subscale (Berry et al. 2007) and demonstrated high internal consistency for both the anxiety and avoidant subscales (Cronbach α = .83 and .79 respectively). Good stability was also demonstrated over time for each subscale with interclass correlation coefficients of .86 for the anxiety subscale and .82 for the avoidance subscale at one month retesting, suggesting reliability. Studies have further demonstrated external validity, both in relation to other measures of attachment style (Berry et al. 2006) and experiences of negative interpersonal relationships (Berry et al. 2007).

The current study replicated the high internal consistency for the anxious and avoidant subscales found in the original validation.

3.7.4. Rosenberg Self-esteem Scale

The Rosenberg Self-esteem Scale (RSES: Rosenberg 1979; Rosenberg 1989; see Appendix B) is a commonly used ten item self report measure of self-esteem. RSES is scored on a four point Likert type scale of agreement with an example statement being: "I feel that I have a number of good qualities." The scale has been widely demonstrated to be valid and, based on the review of literature for this study has been used extensively in research on internalised stigma, making it a suitable choice for comparative purposes. Scores range from zero to thirty with higher scores representing better self-esteem. Internal consistency was high in the current study (Cronbach's α = .88).

3.7.5. Internal State Scale

The Internal State Scale (ISS: Bauer et al. 1991, see Appendix B) is a self-report measure of depressed and activated mood used primarily in the assessment of experiences related to Bipolar Disorder. In its full version it consists of sixteen items measuring four subscales of activation, wellbeing, perceived conflict and depression, which may be rated separately.

Activation relates to core characteristics of bipolar mania, namely rapid speech and increased speed of thoughts and a heightened need for social contact (Bauer 1991). Depression items in

ISS relate to depressed mood and a sense of hopelessness. Four items relating to perceived conflict in the ISS scale were omitted for this study as they were felt to be specifically related to the identification of Bipolar Disorder and therefore less relevant to a study based on a broader sample leaving ten items in the scale.

Respondents rate themselves against statements according to how they have felt over the previous twenty four hours. For example, a statement from the wellbeing subscale, which measures a general sense of mental wellbeing (Bauer 1991), reads: "Today I feel like a capable person." Responses are provided on a Likert type scale ranging from zero (not at all rarely) rising in increments of ten to one hundred (very much so/much of the time). Higher scores represent higher levels of a particular domain, i.e. higher levels of activation, wellbeing, or depression.

ISS has been associated with clinician made ratings of hypomanic and depressive symptoms and has demonstrated good internal validity and reliability (Bauer et al. 1991; Bauer et al. 2000). In the current study, high Cronbach's α scores were calculated for the activation (.87), wellbeing (.80) and depression (.81) subscales respectively.

3.7.6. Work and Social Adjustment Scale

The Work and Social Adjustment Scale (WSAS: Marks 1986, see Appendix B) is a widely used measure of functional impairment resulting from a specified problem. This measure was included as it was anticipated that functional impairment through mental health may be a confounding variable influencing participant's response to stigma.

The five items in WSAS are measured on an eight point Likert scale of severity assessing impairment in work, home life, leisure and relationships. For example, for the relationships domain it asks: "Because of my [mental health problem], my ability to form and maintain close relationships with others, including those I live with, is impaired." Higher overall scores represent greater functional impairment. A score above 20 is considered to suggest moderately severe or worse psychopathology (Mundt et al. 2002).

The reliability and validity of the WSAS in the context of mental health issues was tested based on data from studies of depression and obsessive-compulsive disorder (Mundt et al. 2002). In that validation Cronbach's α measures of internal consistency ranged from .70 to .94 with reliability demonstrated through a test – retest correlation of .73. Similarly, high internal consistency was demonstrated in the current study.

Table 3.1. Internal consistency for scales or subscales in the current study

Scale or subscale	Cronbach's α
ISMI-B	.77
Stig-9	.90
PAM Anxious	.86
PAM Avoidant	.82
RSES	.88
ISS Activation	.87
ISS Wellbeing	.80
ISS Depression	.81
WSAS	.88

3.8.Procedures

3.8.1. Data collection

On recruitment to the study via the identified routes, informed consent was sought from participants in the opening sections of the online survey. On agreeing consent via the website participants answered a series of demographic questions, followed by completion of the specified self-assessed measures. Demographic information included: age, gender, employment status, diagnosis, time since initial diagnosis and type and frequency of service contact.

For self-assessed measures participants were required to answer at least 80% of questions in a scale before they could proceed to the next section.

3.8.2. Data preparation and missing data

Data were exported from the BOS online survey software into MS Excel format. Identifying information, in the form of an email address supplied by some participants to receive updates on research progress, was removed and stored securely and separately from the main data set

in line with ethical approval. The non-identifying data set was then imported into SPSS for Windows (version 21) in which all further data preparation and analyses were completed.

Initial screening of data included the identification and appropriate coding of missing values by the researcher. All data were also checked for errors, including an assessment of any data reported out with the anticipated range of values. Total scale and subscale scores were also calculated and stored in newly created score variables.

Screening of diagnosis identified a high number of 'other' responses suggesting the diagnoses originally listed had not been sufficiently broad (n = 33). An assessment of accompanying explanatory text suggested that in 19 instances references were made to some form of post-traumatic stress. Accordingly, a new diagnostic variable (Post-Traumatic Stress Disorder) was created to accommodate them.

There was a high level of missing data for professional service contact. Service contact was identified through the selection of a check box to identify frequency of contact. Check boxes included a no contact option which many participants seemingly failed to notice or select, which led to missing data. Given most complete data were available for contact with a psychiatrist (n = 8 missing values), it was decided to use this as a suitable proxy measure for intensity of service contact across the sample.

For the purposes of analysis, it was decided to simplify the seven types of employment status included in the survey into one categorical variable (employed or not employed). A new grouped variable for age, based on three groups with a similar number of participants in each (35 and under, 36 to 49, 50 and over), was also created to aid analysis. Time since initial diagnosis was also split into two groups at the median point.

For each scale or subscale missingness of data were assessed using Little's MCAR test which tests the hypothesis that data are missing completely at random. Missingness at random is an assumption that should be met prior to applying any method of missing data replacement (Field 2013). Non-significant results suggest the null hypothesis of missingness completely at

random has not been rejected allowing for the application of multiple imputation, an approach that has the potential to increase statistical power while not necessarily complicating analysis or introducing bias (Donders et al. 2006; Bono et al. 2007). Using this method five copies of the original data set are generated with contrasting imputed missing values. Ordinarily these five data sets are analysed individually with final results pooled, based on these individual analyses. However, multiple imputation methods do come with some analytic limitations in SPSS. Notable among these is that it is not possible to use multiply imputed data for the moderation analysis technique adopted in the current study. This is because the PROCESS macro plug-in for SPSS (Hayes 2013), which was used to undertake moderation analysis in this study, has not been designed to work with multiple data sets. While it would have been possible to use the multiply imputed for all analyses up until the moderation stage it was felt more important that there be consistency in the data set analysed to test the main hypotheses. Therefore, a compromise decision was made to analyse the first of the five imputed data sets produced in SPSS. While this undoubtedly reduces the statistical power and utility of the multiple imputation technique, it is believed to have had a minimal impact given the very small amounts of missing data in the original data set.

3.9.Analysis

All tests of significance were completed at an alpha level of .05, which is generally considered a useful threshold for having confidence in a finding (Field 2013). This suggests a 5% chance that any observed effects were in fact due to chance (a type 1 error). Given the exploratory nature of this study, this relatively lenient level of significance was felt to be appropriate in that the risk associated with failing to show a relationship where one exists outweighed the risk of detecting a spurious relationship.

Preliminary analysis included the assessment of frequencies for categorical variables and descriptive statistics for continuous variables. Statistical tests of significance between mean ISMI-B internalised stigma scores by sociodemographic grouping were also carried out using one way between groups analysis of variance (ANOVA) and independent samples t-test.

For continuous variables data boxplots and, if necessary, 5% trimmed means were examined to identify problems with potentially outlying data. No major problems were identified through this process.

Correlation analysis allowed for the testing of the significance of relationships between predictor, moderator, potentially confounding and outcome variables. Prior to correlation analysis Kolmogorov–Smirnov tests on the normality of distributions were completed for included variables. While this analysis suggested non-normal distributions for some measures it was decided to use Pearson's test of correlation, as opposed to an alternative non-parametric test, to aid comparisons across measures. This decision was also informed by evidence showing Pearson's test is sufficiently robust to tolerate violations of the assumption of normality (Edgell & Noon 1984). Accordingly, it was decided to prioritise testing of the normality of distributions of standardised residuals during regression based analysis, which is described below. Testing the linear relatedness of variables in this way provided an indication of which variables were more or less relevant in the proposed regression-based models. Predictor and potentially confounding variables that did not significantly correlate with internal stigma were excluded from later analytic models.

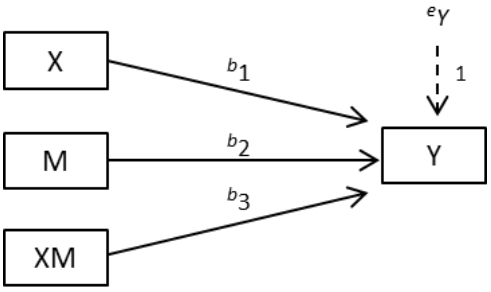
Regression analyses were used to test the direct and indirect relationships between the primary variables of interest where a significant correlation had been identified in earlier analysis. A review of the normal probability plot of the regression standardised residuals suggested no major deviations from the assumption of normality. Scatterplots, Mahalanobis and Cooks distances were reviewed to assess the influence of outliers on statistical models. No cases were found to be out with critical values and therefore none were excluded from regression based analyses. In recognition of the potential for non-normal distributions, bootstrapped confidence intervals were calculated throughout. Multicollinearity was assessed by testing for a tolerance value < .10 and a Variance Inflation Factor (VIF) value > 10. These tests demonstrated that assumptions of multicollinearity were not violated and therefore no adjustments to data were required.

In an initial regression, the effects of anxious and avoidant attachment on internalised stigma were tested. Hierarchical multiple regression was used to assess whether any identified effects for anxious and avoidant attachment style remained when controlling for the effects of other independent and potentially confounding variables. Potential confounds were entered into a model as an initial block followed by a second block which included both attachment variables. This allowed for an assessment of whether anxious and avoidant attachment were able to explain some of the remaining variance in internalised stigma when controlling for the effects of other variables.

3.9.1. Moderation analysis

The primary analyses of moderation were conducted using multiple regression techniques described by Hayes (2013) and the associated PROCESS macro plug-in for SPSS (Hayes 2013). A moderator variable (*M*) can be understood as controlling the strength of the relationship between independent (*X*) and dependent (*Y*) variables. *M* can also be understood as controlling the circumstances in which *X* and *Y* are related. In other words, the effect of *X* on *Y* varies as a function of *M*. Where the null hypothesis is rejected it implies a reliable moderating effect of *M* on the relationship between *X* and *Y*.

Figure 3.3. A moderation model depicted as a statistical diagram



Both moderation and mediation analysis allow for a deeper analysis of underlying processes, mechanisms and conditional relationships than is available through simpler analytic methods (Hayes 2013). While research is often interested in the relationships between the independent variable *X* and the outcome variable *Y*, Mackinnon (2010) characterises mediators and

moderators as 'third variables', in that they play some role in determining the relationship between X and Y and suggest more complex possible causal relationships (Mackinnon, 201).

While neither can prove causality, they do allow for the assessment of whether data are consistent with a proposed causal process (Hayes 2013). Mediation analysis is generally used to test theory in relation to *how* relationships work (Baron & Kenny 1986; Fairchild & MacKinnon 2009; Hayes 2013). Mediator variables can be understood as the medium through which the effect of a predictor variable exerts its influence on an outcome variable. In mediation a variation in the predictor variable influences the mediator variable, which in turn causes variation in the outcome variable. Moderation on the on the other hand involves testing the interaction between a predictor variable and a moderator variable and examining their combined influence on the outcome (Baron & Kenny 1986; Fairchild & MacKinnon 2009; Hayes 2013). Given attachment style is believed to be relatively stable over time (Fraley 2002; Klohnen & Bera 1998) it was felt that moderation analysis was preferable to mediation analysis. In a mediation model perception of public stigma would be expected to exert an influence on a person's attachment style, which would in turn exert an influence upon internalised stigma. It was felt to be more plausible that perceived public stigma and attachment style would have a combined effect upon internalised stigma, therefore supporting the adoption of moderation analysis.

In this study it was hypothesised that both anxious and avoidant attachment styles would moderate the relationship between perceived public stigma (the independent variable) and internalised stigma (the dependent variable), that is, attachment style would control the circumstances in which the perception of public stigma was internalised.

The standard error estimator which is built into PROCESS was used in analysis to correct for potential heteroscedasticity (i.e. differences between observed and estimated values). HC3 (Hayes & Cai 2007) is a test of heteroscedasticity consistent covariance matrix (HCCM) which is particularly useful for use with samples of less than 250 (Long & Ervin 2000). As

with earlier regression analysis bootstrap sampling methods were used to compute bias-corrected 95% confidence intervals (CI) for indirect effects. Bootstrapping does not require the assumption of a normal distribution of the indirect effect which can be hard to achieve with smaller sample sizes. Where an interval does not include zero, then the moderation effect is statistically significant ($p < .05$). In addition, where an overall moderating effect is demonstrated it is also possible to probe the level of moderator at which that effect can be observed using the Johnson-Neyman technique (Johnson & Neyman 1936; Bauer & Curran 2005). This technique allows for a more detailed assessment of a moderating relationship beyond simply stating whether or not one exists across a sample.

4. PRELIMINARY RESULTS

4.1.Introduction

This chapter includes descriptive statistics for all variables. Sociodemographic characteristics are described as well as scores across included measures and correlations between the main variables of interest.

4.2.Sociodemographic characteristics

A total of 122 people participated in the study. Four in every five participants were female. Participants' ages ranged from 18 to 66 years of age. There was a mean age of 41 years similar across all three gender groupings (Table 4.1). For the purposes of preliminary analysis cases were split into three similarly sized age groupings (Table 4.2).

Table 4.1 Age by gender

		Years			
Gender	*N*	Min	Max	*M*	*SD*
Male	21	22	66	41.00	12.38
Female	98	18	65	41.81	12.10
Transgender	3	27	47	39.33	10.79
Total	122	18	66	41.06	12.03

Table 4.2 Age grouping

Age grouping	*N*	%
35 and under	43	35.2
36 to 49	41	33.6
50 and over	38	31.1
Total	122	100.0

Just over a quarter of participants described themselves as being employed full time with a similar proportion employed part time (Table 4.3). Overall participants were equally split between people who were employed in some capacity (N = 62, 50.8%) and those who were not employed (N = 60, 49.2%) with similar rates of employment between women (N = 50, 51.0%) and men (N = 10, 47.6%).

Table 4.3 Employment status

Employment status	*N*	%	% of cases*
Employed part time	30	20.3	24.6
Employed full time	32	21.6	26.2
Volunteer	18	12.2	14.8
Student	14	9.5	11.5
Not employed but currently unable to work	25	16.9	20.5
Not employed but seeking employment	5	3.4	4.1
Retired	10	6.8	8.2
Other	14	9.5	11.5
Total	148	100.0	121.3

*Participants could select more than one option

4.3.Psychiatric characteristics

On average each participant noted two current psychiatric diagnoses (M = 2.23, SD = 1.20). The most commonly reported diagnoses, summarised in Table 4.4, were depression and anxiety, recorded for just over half of participants. Just eight participants recorded a diagnosis of schizophrenia or schizoaffective disorder. More commonly reported were bipolar disorder, personality disorder and post-traumatic stress disorder.

Table 4.4 Psychiatric diagnosis

Diagnosis	*N*	%	% of cases
Depression	77	27.7	63.1
Bipolar disorder	33	11.9	27.0
Postnatal depression	2	0.7	1.6
Schizophrenia & schizoaffective disorder	8	1.8	4.1
Anxiety	65	23.4	53.3
Obsessive compulsive disorder	10	3.6	8.2
Personality disorder	34	12.2	27.9
Eating disorder	12	4.3	9.8
Post traumatic stress disorder	19	6.8	15.6
Not sure	4	1.4	3.3
Other	14	6.1	13.9
Total	278	100.0	227.9

The majority of participants had long-term histories of mental health problems with just under 60% having received a psychiatric diagnosis more than ten years previously (Table 4.5). However, for around a fifth of the sample diagnosis was a relatively recent experience having occurred within the last five years.

Table 4.5 Years since diagnosis

Years since diagnosis	*N*	%
Less than five years	23	18.9
Five to ten years	25	20.5
More than ten years	71	58.2
Not sure	3	2.5
Total	122	100.0

Participants were asked roughly how often in the past two years they had an appointment with a range of mental health professionals. Most complete data were available for contact with a psychiatrist, so it was decided to use this as a proxy measure of service use (Table 4.6). Most commonly participants had contact with a psychiatrist every few months. A fifth of participants reported no contact at all with a psychiatrist in the previous two years[1] rising to a quarter for the lowest age grouping. Least likely to have no contact with a psychiatrist were those in the 36 to 49 age grouping. Given the small numbers in some categories a decision was made to further group contact into frequent, infrequent and no contact categories for the purposes of analysis (Table 4.7).

[1]While a fifth of participants did not have any contact with a psychiatrist in the previous two years they were still eligible for the study as a result of contact with other mental health professionals.

Table 4.6 Frequency of contact with a psychiatrist

	All ages		35 & under		36 to 49		50 & over	
Contact	*N*	%	*N*	%	*N*	%	*N*	%
Weekly	3	2.6	2	4.8	1	2.8	0	0
Monthly	11	9.6	4	9.5	2	5.6	5	13.5
Every few months	32	27.8	9	21.4	14	38.9	9	24.3
About twice a year	12	10.4	4	9.5	4	11.1	4	10.8
About once a year	12	10.4	3	7.1	3	8.3	6	16.2
Once	15	13.0	6	14.3	6	16.7	3	8.1
Contact - not sure how often	6	5.2	3	7.1	1	2.8	2	5.4
No contact	24	20.9	11	26.2	5	13.9	8	21.6
Total	115	100.0	42	100.0	36	100.0	37	100.0

Table 4.7 Frequency of contact with a psychiatrist grouped

Contact	*N*	%
Frequent	46	40.0
Infrequent	39	33.9
No contact	24	20.9
Contact - not sure how often	6	5.2
Total	115	100.0

4.4.Completeness of scale data

The completeness of data for scales was reviewed with low levels of missing data identified. There was a range from zero to six instances of missing data at an item level across the whole sample. For each scale or subscale missingness of data were assessed using Little's MCAR test, which assesses the hypothesis that data are missing completely at random. Given all results were non-significant (Table 4.8) the null hypothesis of missingness completely at random was not rejected, allowing for the multiple imputation of missing data.

Table 4.8 Missing data in scales or subscales

Scale or subscale	Missing data at item level *n*	Little's MCAR test *p*
ISMI-B (Internalised stigma)	1	.75
Stig-9 (Perceived public stigma)	6	.47
PAM Anxious attachment	2	.29
PAM Avoidant attachment	5	.98
RSES (Self-esteem)	4	.84
ISS Activation	0	NA
ISS Wellbeing	0	NA
ISS Depression	1	.25
WSAS (Work and social adjustment)	2	.52

4.5.Descriptive statistics

All measures are included in Appendix B, with scores and internal validity for scales and subscales summarised in Table 4.9. Complete scores by sociodemographic and psychiatric variable groupings for scales and subscales are summarised in Table C1.

Table 4.9 Summary scores for measures of main variables

Measure	*M*	*SD*	Min	Max
ISMI-B (Internalised stigma)	2.20	0.49	1.00	3.33
Stig-9 (Perceived public stigma)	17.39	5.30	0	27.00
PAM Anxious attachment	1.72	0.75	0	3.00
PAM Avoidant attachment	1.95	0.62	0.38	3.00
RSES (Self-esteem)	11.85	6.15	1.00	28.00
ISS Activation	136.80	119.86	0	450.00
ISS Wellbeing	111.89	70.09	0	300.00
ISS Depression	80.81	56.77	0	200.00
WSAS (Work and social adjustment)	23.01	9.55	0	40.00

4.5.1. ISMI-B internalised stigma measure

Due to a researcher error one of the ten items of ISMI-B internalised stigma measure was omitted from the online survey meaning there were missing data for this item for all participants. However, this omission appeared to have minimal impact upon the psychometric properties of the scale.[2] Taking into account the missing item, the mean score on the ISMI-B scale of 2.20 (*SD* = 0.49) suggested participants were on average mildly affected by internalised stigma, with a score above 3.01 considered to demonstrate severe internalised stigma (Boyd, Otilingham & DeForge 2014). The mean score was also very similar to that

[2]An assessment of the impact of the item omission was possible in that both the original validation (Boyd, Otilingham & DeForge 2014) and the current study used the same measure of self-esteem, the Rosenberg Self-esteem Scale (RSES: Rosenberg, 1979, 1989). Both showed a significant negative association, albeit the strengths of association in the current study (r = -.35, p = < .001) was weaker than in the original validation (r = -.64, p = < .001). Both studies also used a similar measure of perceived public stigma in that the Stig-9 tool, used in the current study, was based on the Perceived Devaluation and Discrimination Scale (Link 1987; B.Gierk, personal communication 12th November 2014) which was used in the validation of ISMI-B. Both showed a similar moderate positive correlation (r = .38, p = < .001 for the current study and r = .31, p = < .001 for the original validation). A measure of depression was also included in both studies, albeit different scales were applied. Using the Center for Epidemiological Studies-Depression (CES-D: Radloff 1977) the original validation showed a moderate positive correlation with ISMI-B (r = .55, p = < .001), as did the current study, applying the depression subscale of the Internal States Scale (Bauer et al. 1991: r = .41, p = < .001).

Some caution is advised in these comparative analyses in that the sample characteristics between the current study and that of the original validation varied considerably. This is most notable in their gender profiles with the validation study based on a sample which was 93.6% male compared to 17.2% for the current study. Despite these caveats there is sufficient evidence to suggest that the ISMI-B item omission appears to have had minimal impact upon psychometric properties. This assertion is further strengthened by the finding that the nine item version of ISMI-B used in this study was found to have almost identical internal consistency to that found in the testing of the original ten item version (Cronbach's α = .77: Boyd, Otilingham & DeForge 2014).

noted in an Israeli study of people with serious mental health problems (M = 2.28, SD = 0.49: Hasson-Ohayon et al. 2016). Scores by the four category grouping proposed by Lysaker, Roe and Yanos (2007) suggest that 43.44% of the sample were moderately or severely affected by internalised stigma (Table 4.10). Scores were highest for those who had received a diagnosis between five and ten years previously and for people who were not employed. Scores were lowest for the group who had no contact with a psychiatrist.

Table 4.10 Internalised stigma (ISMI-B) scores by category

Severity of internalised stigma	*N*	%
Minimal to none	48	39.3
Mild	21	17.2
Moderate	35	28.7
Severe	18	14.8
Total	122	100.0

Statistical tests of significance between mean group ISMI-B internalised stigma scores were completed. Separate one way between groups analysis of variance (ANOVA) was conducted to explore the impact of gender, age, years since diagnosis and frequency of contact with a psychiatrist. None of the mean differences between groups within these variables reached statistical significance (Table 4.11) and consequently they were excluded from further analysis. An independent samples t-test was conducted to compare internalised stigma by employment status. There was a significant difference between scores for people who were employed compared to those who were not employed, with people not employed experiencing higher levels of internalised stigma, t = 2.19, p = .03. However, the magnitude of difference in the means (mean difference = 0.19, 95% *CI:* 0.02 to 0.36) was small (eta squared = .038) and it was therefore decided to also discount employment status from further analysis.

Table 4.11 One-way analysis of variance of ISMI-B internalised stigma scores by gender, age, years since diagnosis and frequency of contact with a psychiatrist

Variable	*SS*	*DF*	*MS*	*F*	*p*
Gender					
Between groups	0.01	2	0.01	0.02	.98
Within groups	28.39	118	0.24		
Total	28.40	120			
Age					
Between groups	0.34	2	0.17	0.72	.49
Within groups	28.06	118	0.24		
Total	28.40	120			
Years since diagnosis					
Between groups	0.34	3	0.11	0.47	.70
Within groups	28.07	117	0.24		
Total	28.40	120			
Frequency of contact with a psychiatrist					
Between groups	0.86	3	0.29	1.18	.32
Within groups	26.68	110	0.24		
Total	27.54	113			

4.5.2. Other scales and subscales

For the Stig-9 measure of perceived public stigma a mean score of 17.39 (SD = 5.30) was calculated in the current study, which was notably higher than that found during the tool's psychometric testing in Germany (*M* = 12.15, *SD* = 5.57: Gierk et al. manuscript submitted).

For the Psychosis Attachment Measure the current study found a mean score of 1.72 (SD = 0.75) for the anxious attachment style subscale and 1.95 (SD = 0.62) for the avoidant subscale, with a higher score representing a more anxious or avoidant attachment style. These scores are higher than those recorded elsewhere for both analogue (Berry et al. 2007) and clinical samples (Arbuckle et al. 2012) suggesting relatively high levels of attachment insecurity in this sample. There was a mean RSES self-esteem score in the current study of 11.85 (*SD* = 6.15), suggesting a similar level of self-esteem to that found elsewhere in research on internal stigma in a mixed diagnostic sample of women (Rüsch et al. 2006).

The mean ISS scores were 136.80 for activation (SD = 119.86), 111.89 for wellbeing (SD = 70.09) and 80.81 for depression (SD = 56.77). By way of comparison a study using an

analogue sample found higher mean activation and wellbeing scores but a lower depression score (Jones & Day 2008) which suggests this sample have an overall low level of activation. In a sample of US veterans with a diagnosis of bipolar disorder mean scores for both activation and wellbeing were higher than in the current study, but depression scores were similar (Bauer et al. 2000). Taken together these comparators suggest relatively low levels of activation and wellbeing in the current sample.

The mean WSAS score was 23.00 (SD = 9.54), suggesting similar levels of work and social adjustment impairment to that found in a sample of people with a diagnosis of depression (Mundt et al. 2001).

4.6.Correlations between main continuous variables of interest

Correlations between the main continuous variables of interest were assessed using Pearson's product moment correlation coefficient to inform the identification of potential confounds. All results are summarised in Table 4.12. Prior to analysis scatter plots were examined to gain an initial sense of the relationships between variables and to check for violations of the assumptions of linearity and homoscedasticity, which were satisfied.

Internalised stigma (ISMI-B) was moderately positively associated with perceived public stigma (Stig-9), anxious attachment style (PAM Anxious), activation (ISS Activation), depression (ISS Depression) and impaired work and social adjustment (WSAS). Internalised stigma was also positively associated with avoidant attachment style (PAM Avoidant) but the effect size was small (Cohen 1988). Internalised stigma was moderately negatively associated with self-esteem (RSES). There was no statistically significant association with age.

Perceived public stigma was moderately positively associated with both anxious and avoidant attachment styles and with impaired work and social adjustment. Positive correlations with activation and depression were statistically significant but the effect size was small. There was a moderate negative association with self-esteem and a negative association with wellbeing but again with a small effect size. There was no significant association with age.

Anxious attachment was moderately positively associated with depression and also impaired work and social adjustment. It was also positively associated with avoidant attachment and activation but with a small effect size. There was a moderate negative association with self-esteem and a weak negative association with wellbeing. There was no statistically significant association with age. Avoidant attachment was moderately negatively associated with self-esteem and weakly negatively associated with wellbeing. Small positive associations were identified between avoidant attachment and activation, depression and impaired work and social adjustment. There was again no statistically significant association with age.

Self-esteem was strongly negatively associated with depression and impaired work and social adjustment and weakly negatively associated with activation. It was moderately positively correlated with wellbeing and weakly positively associated with age.

Activation was weakly positively associated with wellbeing but was not significantly associated with any of the remaining psychiatric variables, work and social adjustment or age. These findings may have been due to generally low levels of activation in this sample. Wellbeing, on the other hand, was strongly negatively associated with depression and moderately negatively associated with impaired work and social adjustment. Depression was moderately positively associated with impaired work and social adjustment but had no statistically significant relationship with age. Similarly, there was no statistically significant correlation between work and social adjustment and age. Based on this assessment of correlations a decision was made to exclude age and activation from later analyses.

Table 4.12 Correlations between measures

Measure	ISMI-B	Stig-9	PAM Anxious	PAM Avoidant	RSES	ISS Activation	ISS Wellbeing	ISS Depression	WSAS	Age
ISMI-B (Internalised stigma)	1	.36**	.34**	.19*	-.36**	.18*	-.38**	.43**	.41**	-.12
Stig-9 (Perceived public stigma)	.36**	1	.31**	.35**	-.30**	.21*	-.19*	.28**	.33**	.04
PAM Anxious attachment	.34**	.31**	1	.23*	-.45**	.25**	-.29**	.32**	.32**	-.16
PAM Avoidant attachment	.19*	.35**	.23*	1	-.31**	.15	-.19*	.18	.26**	-.07
RSES (Self-esteem)	-.36**	-.30**	-.45**	-.31**	1	-.19*	.45**	-.52**	-.54**	.29**
ISS Activation	.18*	.21*	.25**	.15	-.19*	1	.19*	.05	.06	-.04
ISS Wellbeing	-.38**	-.19*	-.29**	-.19*	.45**	.19*	1	-.65**	-.48**	.23*
ISS Depression	.43**	.28**	.32**	.18	-.52**	.05	-.65**	1	.44**	-.06
WSAS (Work and social adjustment)	.41**	.33**	.32**	.26**	-.54**	.06	-.48**	.44**	1	-.14
Age	-.12	.04	-.16	-.07	.29**	-.04	.23*	-.06	-.14	1

*Significant at .05 level
**Significant at .01 level

5. MAIN RESULTS

5.1.Hypothesis one

It was hypothesised that perceived public stigma and internalised stigma would be positively associated in line with theory suggesting that the internalisation of stigma for people affected by mental health problems is at least in part contingent upon the perception that the wider public hold stigmatising views. The correlation analysis described in the previous chapter confirmed that perceived public stigma was moderately positively associated with internalised stigma, based on effect size estimates suggested by Cohen (1988), $r = .36$, $p < .01$, with high levels of perceived public stigma associated with high levels of internalised stigma.

5.2.Hypotheses two and three

Following preliminary analysis to ensure no violations of the assumptions of normality, linearity, multicollinearity and homoscedasticity, hierarchical multiple regression was used to test whether anxious and avoidant attachment styles were positively associated with a significant amount of variance in internalised stigma, when controlling for the effects of other independent variables. Potential confounds, perceived public stigma, self-esteem, wellbeing, depression and work and social function, were entered into a multiple regression model as an initial block. This was followed by a second block where anxious and avoidant attachment were entered into the model together. This hierarchical approach allowed for an assessment of whether anxious and avoidant attachment could explain any of the remaining variance in internalised stigma when controlling for the effects of potentially confounding variables.

Perceived public stigma, self-esteem, wellbeing, depression and work and social function were entered into a model at step one. This model explained 29.4% of the variance in internalised stigma and was statistically significant, F[3] $(5, 116) = 9.65$ $p < .001$. At step one

[3] *F* is used to test the overall fit of a model. It is the ratio of the average variability in data that the specified model can explain against the average variability which cannot be explained.

the only variable to make a statistically significant individual contribution to the model was perceived public stigma, $\beta^4 = .21$, $p < .05$.

After entry of anxious and avoidant attachment at step two the total variance explained by the model as a whole was 30.6%. Anxious attachment explained an additional 1.3% of the variance in internalised stigma after controlling for perceived public stigma, self-esteem, wellbeing, depression and work and social function. This was not a statistically significant contribution, R^2 change[5] = .01, F change[6] (2, 114) = 2.05, $p > .05$. The model as a whole was, however, statistically significant in step two, F (7, 114) = 7.19 $p < .001$. Again, the only variable to make a statistically significant contribution to the final model was perceived public stigma, $\beta = .19$, $p < .05$ (Table 5.1).

Table 5.1 Summary of hierarchical regression analysis for variables effect on internalised stigma (N = 122)

	Step 1			Step 2		
Predictor variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Stig-9 (Perceived public stigma)	.02	.01	.21*	.02	.01	.19*
RSES (Self-esteem)	-.00	.01	-.04	.00	.01	-.00
ISS Wellbeing	-.00	.00	-.10	-.00	.00	-.10
ISS Depression	.00	.00	.20	.00	.00	.19
WSAS (Work and social adjustment)	.01	.01	.19	.01	.01	.18
PAM Anxious attachment				.09	.06	.13
PAM Avoidant attachment				-.01	.07	-.01

R^2 = .29 for Step 1; R^2 change = .01 for Step 2 ($p > .05$)
* = <.05

[4] *β* is a standardised regression coefficient (whereas *B* represents an unstandardised regression coefficient). It indicates the change in the outcome variable (internalised stigma) in standard deviations associated with one standard deviation change in the predictor variable (in this case perceived public stigma).

[5] R square change is the improvement in R square when the second predictor is added (in this case anxious attachment). The R-square change is tested with an F-test.

[6] In one way analysis of variance the F-test is used to assess whether the expected values of a variable within different groups differ from each other. The variation is referred to as the F-change.

5.3.Hypotheses four and five

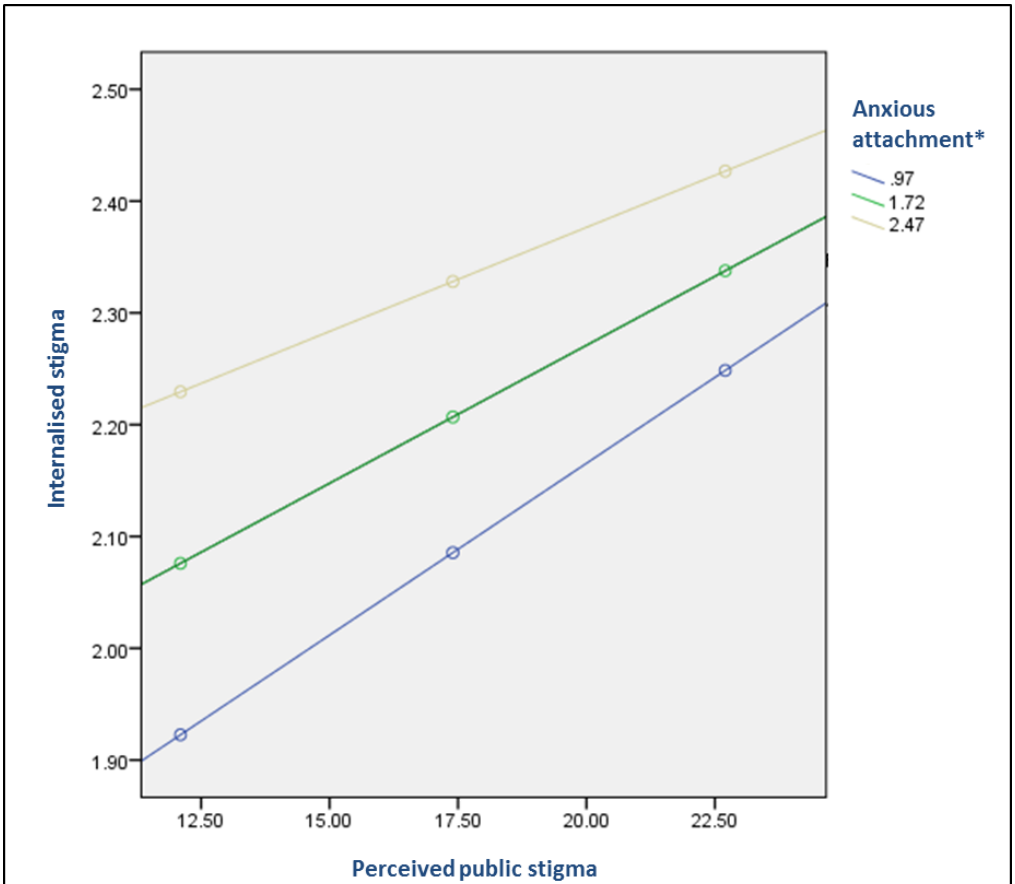
Despite the rejection of hypotheses two and three it was appropriate to continue testing for potential moderating effects due to the different analytic technique applied between these stages (Hayes 2013; Hayes & Rockwood 2016). In earlier regression models perceived public stigma was entered into the model along with other potentially confounding variables in a single block, whereas in the moderation analysis perceived public stigma is specified as the main predictor variable, while controlling for the effects of other potentially confounding variables. This reduces the influence of perceived public stigma in the moderation analysis models. Moderation analysis also allows for the testing of combined effects between the predictor (perceived public stigma) and proposed moderator variables (anxious and avoidant attachment). This differs from the earlier regression analysis where the model constrained the effect of perceived public stigma to be unconditional on other variables (including anxious and avoidant attachment). This constraint is removed in moderation analysis, whereby the effect of perceived public stigma on internalised stigma can be contingent upon different levels of anxious or avoidant attachment.

Initially simple slopes plots were developed to visually assess potentially moderating effects for anxious and avoidant attachment styles on the relationships between perceived public stigma and internalised stigma (hypotheses four and five respectively). These plots provided an interpretive aid to the interaction effect between attachment and public stigma on internal stigma and are based on the various combinations of anxious and avoidant attachment style and perceived public stigma.

Figure 5.1 demonstrates a positive association between the combined effect of anxious attachment and perceived public stigma on internalised stigma at all three levels of anxious attachment specified[7]. The slopes suggest some variation in the strengths of association between perceived public stigma and internalised stigma at different levels of anxious attachment, which suggests some moderating effect.

[7] Three different levels of anxious attachment style are arbitrarily selected, these being the mean anxious attachment score and one standard deviation above and below the mean.

Figure 5.1 The combined effect of anxious attachment and perceived public stigma on internalised stigma



Regression based moderation analysis described by Hayes (2013) and the associated PROCESS macro plug-in for SPSS (Hayes 2013) was used to test for combined effects between anxious attachment and perceived public stigma on internalised stigma. The model as a whole was statistically significant, R^2 = .19, F (3, 118) = 9.93 p < .001. This suggests that 19% of the variance in internalised stigma was contingent upon anxious attachment, perceived public stigma and their combined effect.

The contribution of each variable in the model (including the combined effect of anxious attachment and perceived public stigma) is summarised in Table 5.2 where it can be seen that the only variable to make a statistically significant contribution to the model was perceived public stigma. For every one unit increase in perceived public stigma there was a 0.04 unit

increase in internalised stigma. However, the overall combined effect of anxious attachment style and perceived public stigma was not statistically significant when added to the model, R^2 change = .00, F change (1, 118) = 0.46, p >.05. This means that the combined effect of perceived public stigma and anxious attachment failed to make a statistically significant contribution to the prediction of internalised stigma. Hypothesis four was therefore not supported. Analysis was stopped at this stage as it would not have been appropriate to probe for conditional effects at different levels of anxious attachment using the Johnson Neyman technique given the absence of an observed statistically significant interaction effect in the model (Hayes 2012).

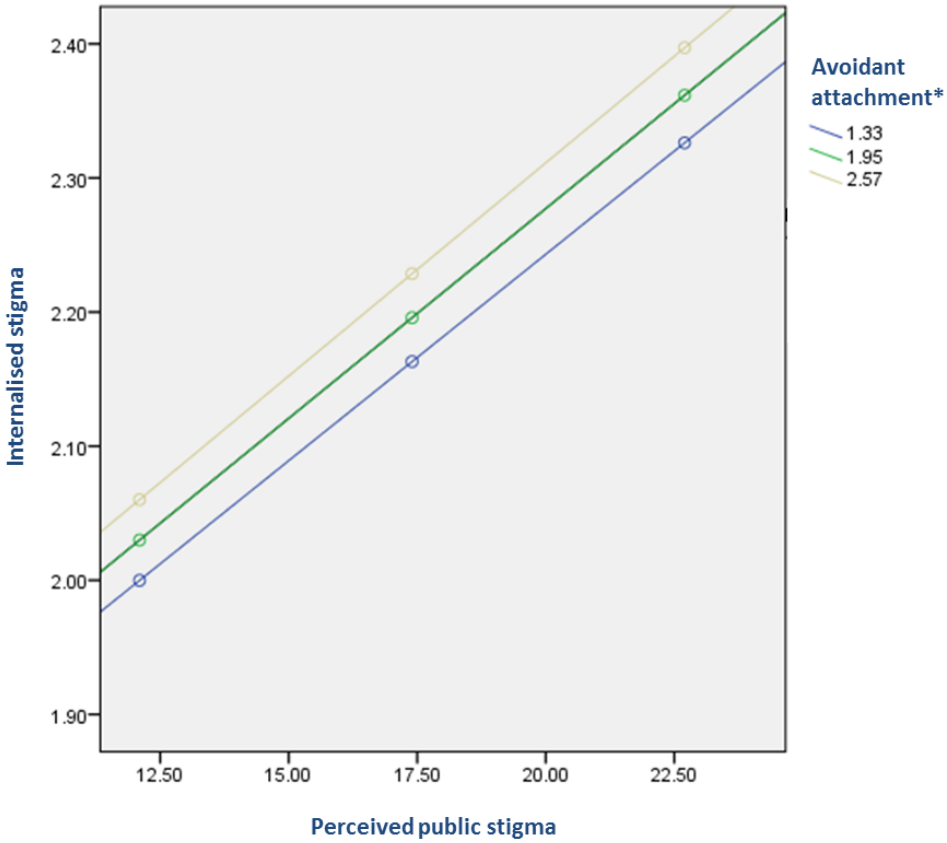
Table 5.2 Internalised stigma predicted from perceived public stigma and anxious attachment

Predictor variable	*B*	*p*	95% CI	
Anxious attachment	0.30	.14	-.10	.71
Perceived public stigma*	0.04	.04	.00	.07
Perceived public stigma X Anxious attachment	-0.01	.50	-.03	.02

* = <.05

Turning to hypothesis five on the moderating effect of avoidant attachment style on the relationship between perceived public stigma and internalised stigma, the simple slopes plot (Figure 5.2) suggested no significant interaction effect between avoidant attachment style and perceived public stigma on internalised stigma. This can be seen by the lack of variation in width between the slopes which suggests a similar strength of positive relationship between perceived public stigma and internalised stigma at different levels of avoidant attachment.

Figure 5.2 The combined effect of avoidant attachment and perceived public stigma on internalised stigma



*Three different levels of anxious attachment style are arbitrarily selected, these being the mean score and one standard deviation above and below the mean.

This was confirmed in detailed analysis using PROCESS. As with anxious attachment the model as a whole was statistically significant, R^2 = .13, F (3, 118) = 7.28 p < .05. This suggests 13% of the variance in internalised stigma was contingent upon avoidant attachment, perceived public stigma and their combined effect. The contribution of each variable in the model (including the combined effect of avoidant attachment and perceived public stigma) is summarised in Table 5.3 where it can be seen that none of the included variables made a statistically significant unique contribution to internalised stigma. As with anxious attachment, the overall combined effect of avoidant attachment style and perceived public stigma was not statistically significant when added to the model, R^2 change = .00, F change (1, 118) = 0.01, p >.05. This means that there was no evidence of a statistically significant

moderating effect for avoidant attachment and hypothesis five was therefore not supported. Further moderation analysis was stopped at this stage.

Table 5.3 Internalised stigma predicted from perceived public stigma and avoidant attachment

Predictor variable	*B*	*p*	95% CI	
Avoidant attachment	0.04	.83	-.33	.41
Perceived public stigma	0.03	.13	.01	.07
Perceived public stigma X Anxious attachment	0.00	.94	-.02	.02

6. DISCUSSION

6.1.Revisiting the purpose of this study

This study was designed to examine the potential role of attachment style in the internalisation of perceived public stigma amongst adults affected by significant mental health problems. Internalised stigma has been evidenced to be a relatively common but poorly understood concept (Livingston & Boyd 2010; Hasson-Ohayon et al. 2012). It has also been shown to be disabling for those affected and is associated with a range of negative outcomes (Livingston & Boyd 2010; Yanos, Roe & Lysaker 2010; Watson et al. 2007). It was proposed that one potential means to better understand processes underpinning and determining the internalisation of stigma was to test the relevance of attachment style. This was influenced by wider calls to consider the role of early childhood experiences and their influence on later relational style as one potential means of better understanding mental health stigma (Smith 2013).

Attachment theory proposes that the quality and type of attachment experiences in early childhood with primary caregivers influence the development of an 'attachment style,' whereby internal working models of self in relation to others develop which influence, amongst other things, expectations and interpretations of social interactions and relationships as children and adults (Bowlby 1969; Mikulincer & Shaver 2010). Theoretical support for the potential relevance of attachment style in the internalisation of stigma may be gleaned from a number of sources. These include general evidence on the role of attachment style in determining responses to feelings of distress and threat generally as well as evidence related to relationships between stigma relevant concepts and attachment style in wider groups of people who are prone to stigma. There is also limited support from research in the context of adult mental health where internalised stigma and attachment have been measured.

A review of literature identified a broad range of literature on the role of social and relational factors in internalised stigma. The strongest evidence was found for a negative association between social support and internalised stigma. There were though indications that a broader

set of variables connected with social relations should be considered to better understand processes of stigma internalisation. However, only one included study explicitly considered the role of attachment style in relation to internalised stigma.

6.2.Reviewing key findings

Initial analysis of the data confirmed the first hypothesis that perceived public stigma would be positively associated with internalised stigma. This replicates previous research (see, for example, Chronister, Chou and Liao 2013, Kao et al. 2016) and fits with modified labelling and social cognitive theories of internalised stigma which both propose that the perception of public stigma is a necessary condition of its internalisation (Link 1987; Link et al. 1989; Corrigan, Watson & Barr 2006; Livingston & Boyd 2010).

It is though noteworthy that the correlation between internalised stigma and perceived public stigma barely reached a moderate strength of association and that three other variables, work and social adjustment, depression and wellbeing had higher correlations with internalised stigma, and one other, self-esteem, was equally correlated. This is not the first research to report a relatively weak strength of association between perceived public stigma and internalised stigma. For example, Chronister, Chou and Liao (2013) found that both emotional and tangible social support were more strongly correlated with internalised stigma than perceived public stigma. Krajewski, Burazeri and Brand (2013) in an international study found a positive association in some but not all of the countries included in their study, indeed in two countries the relationship was reversed. Watson and colleagues (2007) found no statistically significant association between stereotype awareness and stereotype self concurrence (which can also be understood as the internalisation of stereotyped views in Corrigan's model of internalised stigma: Corrigan, Watson & Barr 2006).

There are two ways to interpret these mixed findings on the relationship between perceived public stigma and internalised stigma. On the one hand they might suggest that their hypothesised dependency may not be as clear cut as one might assume. An alternative interpretation could be that they simply confirm Corrigan and colleagues position that while

perceived public stigma is a necessary precondition for internalised stigma it is does not automatically lead to it, and that other factors play a role in determining internalisation (Corrigan, Watson & Barr 2006; Corrigan, Larson & Rüsch 2009).

Wider support for the unique contribution of perceived public stigma to internalised stigma in the current study may be drawn from the results of hierarchical multiple regression applied to test hypotheses two and three. This showed that at both steps in a model where internalised stigma was the main outcome, perceived public stigma was the only variable to make a statistically significant individual contribution. This influence of perceived public stigma on internalised stigma above and beyond that of other variables was noteworthy in that for the first time in adult mental health research attachment style was included within a model of internalised stigma. In other words, the unique contribution of perceived public stigma on internalised stigma remained despite the inclusion of a new candidate variable.

Hypotheses two and three were primarily concerned with testing whether anxious and avoidant attachment styles were positively associated with a significant amount of variance in internalised stigma when controlling for the effects of other potentially confounding variables. While there was a very small non-significant positive effect for anxious attachment on internalised stigma when controlling for other variables in a multiple regression model, no effect was observed for avoidant attachment. In other words, avoidant attachment added no explanatory power to a model of internalised stigma above and beyond that of other included variables and the limited additional contribution of anxious attachment to the model was not statistically significant. This means that hypotheses two and three were not supported by the data.

When testing for potentially moderating effects for anxious and avoidant attachment on the relationships between perceived public stigma and internalised stigma (hypotheses four and five) again no overall effects were observed. In other words, there was no statistically

significant combined effects between anxious or avoidant attachment styles with perceived public stigma on internalised stigma.

Overall it is hard to make comparisons with existing evidence given the paucity of studies which have linked internalised stigma and adult attachment style, meaning the current findings are exploratory and speculative. This observation was echoed by Cheng, McDermott & Lopez (2015), in one of the few studies to explicitly link the constructs in an adult mental health context. Further, no research has been identified, within mental health or beyond, with which it is possible to directly compare findings about the hypothesised moderating effects of insecure attachment on the internalisation of perceived public stigma. Cheng, McDermott and Lopez (2015), for example, tested a model in which insecure attachment was found to predict intentions to seek help in a large student sample, mediated by internalised stigma. While this finding does have relevance to the current study in that the effect of internalised stigma on help seeking was shown to be influenced by insecure attachment the model tested is very different to the one applied in the current study. This is both in relation to the adoption of mediation analysis and also in the different positioning of the insecure attachment styles and internalised stigma within the theoretical models. They also applied different measures of internalised stigma and attachment than were used in this study.

Considering wider literature, the finding that avoidant attachment appears to play no significant part in influencing the relationship between perceived public stigma and internalised stigma is perhaps less surprising than the finding that anxious attachment appears to be similarly redundant. In general, studies tend to suggest that anxious attachment plays a more prominent role in influencing stigma relevant variables than avoidant attachment. For example, Riggs, Vosvick & Stallings (2007) found significantly higher levels of HIV-related stigma concern for people with anxious attachment style compared to those with dismissing avoidant styles. Zakalik & Wei (2006) found that while discrimination experiences partially mediated the relationship between anxious attachment and depression, no effect was found for avoidant attachment.

These observed differences might be explained by a variety of factors which differentiate avoidant attachment from anxious and secure attachment. These include a propensity for people with avoidant attachment styles towards self-reliance and toward holding more negative views of other people (Bartholomew & Horowitz 1991; Riggs, Vosvick & Stallings 2007). These characteristics may be part of a deactivating coping strategy (Mikulincer, Shaver & Pereg 2003) and may minimise the impact of or reduce awareness of wider stigmatising views, as may a reduced recall of negative life events (Fraley & Brumbaugh 2007). On the other hand, people with an anxious attachment style are believed to be excessively concerned with the views of other people, fearful of rejection, prone to rumination (Mikulincer, Shaver & Pereg 2003; Schiffrin 2014) and more likely to recall negative events (Pereg & Mikulincer 2004; Mikulincer & Orbach 1995).

In sum, these characteristics might be expected to contribute to a propensity to more readily internalise negative stereotypes for people with an anxious attachment style when compared to those with avoidant or secure attachment. While the current study offers some limited support for this proposition, in that anxious attachment is more strongly positively correlated with internalised stigma than avoidant attachment is (Table 4.12), the failure to demonstrate statistically significant effects for either insecure attachment style above and beyond that of other potential confounding variables on internalised stigma and the failure to demonstrate moderating effects is more noteworthy. However, it should be noted again that none of these studies was concerned with the role of attachment style in a model specifically about the internalisation of perceived public stigma so direct comparisons are highly speculative.

Failure to reject a null hypothesis of no effect can occur for a variety of reasons. These of course include the possibility that there is no statistically significant effect to be observed between the variables of interest, but there also remains the possibility of a Type II error. Such errors relate to the failure to detect a real effect in the wider population of interest (Field 2013) and a number of potential contributors to Type II errors in the current study are discussed in the following sections on limitations. These are followed by recommendations for future

research in the field which could improve the reliability and validity of findings and reduce the likelihood of a Type II error.

6.3.Strengths of the study

A notable strength of this study was in the very high levels of complete data provided. Online surveys can be prone to problems with incomplete data (Hohwü et al. 2013) but in the current study the highest number of instances of missing data at a scale item level was six. In addition, none of the 122 people who started the survey failed to complete it. This may have been achieved in part as a result of the careful development of the survey. Extensive efforts were made to minimise participant burden, for example the use of short versions of validated scales where possible, the inclusion of encouraging messages at the foot of each survey page and attention being paid to the need to share participant information in clear and digestible amounts. Extensive testing of the survey with people with lived experience of mental health problems also informed a number of improvements to the survey which may also have increased participant commitment to the study. Evidence to support this came from the feedback of a number of survey testers and research participants who commented on the clarity and simplicity of the survey.

Online surveys provide a number of advantages over other methods of data collection. In the context of relatively personal questions about experiences of mental health problems, stigma and personal relationships, perhaps most important is their offering a strong degree of anonymity, when compared for example to completing an interview with a researcher present. This may have helped participants to be more open about their experiences than they may have been in a face to face setting and could also potentially reduce social desirability bias, which is of particular concern in stigma research (Link et al. 2004; Corrigan et al. 2015).

While a small number of studies with adults affected by mental health problems have included measures of attachment and internalised stigma to the researcher's knowledge this is the first to have tested a model specifically concerned with the role of insecure attachment in the internalisation of perceived public stigma. A such it adds new and important learning to the

field and also informs the design of future studies in the field, both of which are explored more fully elsewhere in this chapter.

6.4.Limitations of the study

The present findings should be interpreted in light of a number of limitations. Firstly, and perhaps most importantly, the internalisation of stigma is a process which takes place over time, but the cross sectional design of this study means that views and experiences of participants were captured at one time point. This makes it impossible to draw causal inferences about the internalisation of stigma from the findings. A longitudinal design, with measurement at different time points, would allow for a fuller assessment of the interaction between perceived public stigma and attachment on the internalisation of stigma over time. A number of other elements in the design of the current study may make it harder to generalise findings to the wider population of adults affected by mental health problems and could also have increased the likelihood of a Type II error. These include the size and representativeness of the sample, as well as the methods used to measure core variables within the study.

Researchers have observed how difficult it can be to identify moderator effects in non-experimentally designed research (McLelland & Judd 1993), particularly observational studies with continuous variables (Shieh 2009). While the current sample of 122 was deemed sufficient to demonstrate a medium effect size using regression-based moderation techniques described by Andrew Hayes and others (Hayes & Rockwood 2016; Hayes 2013) a more conservative approach to moderation analysis would have suggested a considerably larger sample size (Baron & Kenny 1986). It is therefore possible that one explanation for the failure to demonstrate a statistically significant interaction effect in the current study was that it was not sufficiently powered to identify such an effect.

The convenience sampling approach adopted in the current study also means that the sample is unrepresentative of the wider population of interest. Indications of bias include the sociodemographic characteristics of the sample. Notably, 80% of participants were female and half were employed in some capacity. In contrast data from the Health and Social Care

Information Centre (2015) on secondary mental health service use in in England and Wales suggests that 55% of people using secondary mental health services are females and just 7% on the Care Programme Approach are employed.

The under-representation of males in the sample, when compared to the wider population of interest may have influenced findings and reduced generalisability. While Livingston and Boyd (2010) found no significant correlation between gender and internalised stigma in 31 out of 38 studies included in their systematic review, wider evidence suggest an intersectionality of stereotypes related to gender and mental health stigma (Boysen et al. 2014). There are mixed findings on the relationship between adult attachment style and gender. While a large study of results from ten thousand Adult Attachment Interview measures suggested no particular influence for gender on assessments (Bakermans-Kranenburg & van IJzendoorn 2009) there is evidence to suggest that when applying the Psychosis Attachment Measure, which was used in the present study (Appendix B), males report significantly higher levels of avoidant attachment when compared to females (Berry, Barrowclough & Wearden 2008). This may have led to an underrepresentation of that insecure attachment style in the current study. Further, a predominantly female sample may also have influenced the diagnostic characteristics of the current sample and negatively impacted generalisability. For example, women are significantly more likely than men to be diagnosed with both depression and anxiety (Steel et al. 2014), while men are more likely than women to be diagnosed with schizophrenia (McGrath et al. 2008). This may have led in turn to an over and under-representation of these diagnoses in the current sample.

The relatively high proportion of people in the current sample in some form of employment could suggest that they were more likely than the wider population of interest to be exposed to positive influences from working. These benefits, which include increased social networks and a sense of meaning and purpose derived from employment (van der Noordt et al. 2014), could in turn positively influence responses to stigma. Conversely people with experiences of mental health problems commonly report experiences of stigma and discrimination in the

workplace (Brouwers et al. 2016) so it is also possible that the current sample may in fact have been more exposed to stigma as a result of high employment rates.

While Livingston & Boyd (2010) in a meta-analysis of the correlates and consequences of internalised stigma found no evidence for any influence of ethnicity on internalised stigma, failure to include it in the survey meant it was not possible to examine the potential role of ethnicity on the internalisation of stigma or its interaction with other variables. Given the potential cumulative effect of multiple inequalities upon responses to and experiences of stigma (Corrigan et al. 2005; Holley et al. 2012), this shortcoming should be rectified in future research, not least to allow for a fuller description of the sample recruited and to inform generalisability.

As most of the recruitment took place via the social media platform Twitter it is also possible that a higher proportion of people were engaged in some form of mental health activism than would be found in the wider population. Twitter offers an online community where information is shared, service feedback is provided and connections are made between people with an interest in mental health (Shepherd et al. 2015). While rates of access to the internet are relatively high for people affected by mental health problems (Robotham et al. 2016), access to social media platforms is less common (Kalckreuth, Trefflich & Rummel-Kluge 2014). It is also noteworthy that in a survey of people affected by mental health problems those most likely to be 'digitally excluded' had experiences of psychosis (Robotham et al. 2016), which may go some way to explain the relatively low number of people with a schizophrenia or related diagnoses in the current sample. While efforts were made to reduce reliance on online recruitment by promoting the study through the social care organisation Penumbra it was unfortunately not possible to tell how people had arrived at the survey and therefore how successful this approach was. Spikes in participant recruitment did appear to coincide with online recruitment activities rather than with promotion through Penumbra so there is some reason to believe it had minimal impact. Also, while efforts were made to ensure a spread of participants from across the United Kingdom, the sample was biased towards

people living in Scotland in that most organisational support for recruitment came via groups based there.

Given the review of literature for this study showed that social support was the social and relational factor most consistently linked with internalised stigma, a limitation of the current study was that it did not include any means of measuring social support. Doing so may have offered new learning about the interaction of social support and attachment style in the context of internalised stigma.

One inclusion criteria was that participants had used secondary mental health services within the previous two years. It is possible that this may also have biased the sample in that those people who are more disabled by feelings of shame and stigma are least likely to seek help (Clement et al. 2015) and may therefore be underrepresented in the current sample. It is also plausible that people with an avoidant attachment style may also be less likely to access services (Cheng, McDermott & Lopez 2015) and therefore may also be underrepresented, as a result of taking steps to avoid the use of secondary services.

The sample recruited in the current study was intentionally transdiagnostic. This makes it harder to compare results to existing evidence given the majority of studies in internalised stigma are based on single diagnostic groupings. For example, in a review of literature Livingston and Boyd (2010) found that half of included studies related to people with schizophrenia diagnosis. However, there is evidence that diagnosis is not necessarily predictive of internalised stigma (Watson et al. 2007) and a case has been made for more transdiagnostic research in that it is generalisable to a wider population of mental health service users (Quinn, Williams & Weisz 2015).

A number of limitations with regards to measurement and analytic techniques should also be considered when interpreting results. As discussed in section 3.4 there are potential ethical risks associated with remote completion of measures that relate to the potentially sensitive topics in this study (Labott et al. 2013; BPS 2013). Self-report measures are also prone to a

number of problems and biases which can negatively affect their validity (McDonald 2008) and these may have played some role in the current study. Known issues include variations in the way people respond to rating scales, which may be linked to the respondent's conscientiousness (Austin et al. 1998), a tendency for people to respond to questions in ways which may present them in a positive light (i.e., social desirability bias: Paulhus 1991) and responding to questions without fully considering their meaning (Paulhus & Vazire 2007).

While there may be some specific practical advantages to the use of online surveys in the context of research on stigma (see 6.3) future studies might benefit from direct contact between a researcher and participants, particularly to allow for monitoring of emotional responses to questions. Additionally, researcher led methods allow for clarifications by the researcher and, where interview-based techniques are applied, for the probing of participant responses. Such approaches may have provided richer data and a fuller assessment of complex psychosocial constructs like internalised stigma and attachment style.

Commenting on the ubiquity of self-report measures in stigma research, Wood and colleagues (2016a) argue that semi-structured interview based approaches allow for flexibility in the approach to asking questions, which may be particularly helpful where there is a need to examine aspects of stigma that may have cultural specificity. The Semi-structured Interview Measure of Stigma (SIMS) is therefore worthy of consideration in future stigma research involving people with experiences of psychosis.

While it has been argued that it is possible to accurately measure adult attachment style using self-report measures (Picardi et al. 2011) others have suggested it is more accurately measured using narrative and interview techniques, for example, the Adult Attachment Interview (George, Kaplan & Main 1985). Such calls are strengthened by evidence suggesting that social desirability bias can be a particular problem where self-report measures are used in attachment research (Leak & Parsons 2001)

The accuracy of attachment style measurement in the current study might also have been improved by applying the key informant component of the Psychosis Attachment Measure (PAM). This additional measure can be used to supplement the PAM self-report component with the views of someone else who is close to the person being assessed. This and the use of more detailed interview techniques were not, however, possible within the scope and design of the current study. A further consideration is that PAM was developed specifically for people with experiences of psychosis so its accuracy in measuring attachment in transdiagnostic groups has not been validated and it is therefore possible that it is not well suited to this type of research.

A further limitation in measurement relates to the omission of one item from the Internalised Stigma of Mental Illness Brief scale (ISMI-B: Appendix B). Efforts were made to assess the consequence of the item omission through replicating, as far as was possible, the validation methods described in the development of the original tool (Boyd, Otilingham & DeForge 2014). This suggested almost identical internal consistency for the shorter nine item version when compared to its original validation. Similar strengths of association were also observed between the nine item version used in this study with similar measures to those used in the original validation of the scale. While these findings, which are described in detail (see 4.5.1), suggest the item's omission had minimal impact upon the psychometric properties of the scale it is impossible to fully understand its impact and it also makes it harder to confidently compare findings with other research in the field using the same measure.

The measure of gender applied in the study was inadequate for assessing gender identity and recommendations for multidimensional sex/gender measurement should be followed in future research in the field (see, for example, Bauer et al. 2017).

Finally, while multiple imputation was used to replace missing data it was not possible to analyse the full five imputed data sets due to limitations in the software used to complete moderation analysis. While it would have been possible to use the full five imputed data sets

to test hypotheses two and three, in order to ensure consistency with later analyses it was decided that a pragmatic approach would be to use the first of the five imputed data sets during all regression based analyses (hypotheses two to five). Given the very small amount of missing data the impact of this decision is, however, believed to have been limited.

6.5.Implications for policy and practice

Despite the limitations described the current findings do have implications for mental health policy and practice. Firstly, it is clear from this sample that despite widespread efforts to reduce stigma and discrimination across the United Kingdom people included in the current sample still perceived wider societal stigma to be a significant problem. It is also notable that scores on the Stig-9 measure of perceived public stigma were considerably higher than those found during its validation in Germany (Gierk et al. manuscript submitted).

Mental health stigma appears to be a particularly stubborn form of prejudice. It is concerning that despite an increasingly widespread public narrative that stigmatising attitudes are reducing, which is contributing to an increasing demand for services (see for example, Scottish Government 2016) evidence to support any improvement in public attitudes over time is unconvincing. For example, in a survey of Scottish public mental health attitudes repeated on five occasions in the last two decades indicators of stigmatising attitudes have remained largely stable over time or in some cases worsened (Reid, Hinchliffe & Waterton 2014). Logically a reduction in the perception and experience of stigma should minimise the likelihood that stigma becomes internalised amongst people affected by mental health problems. Indeed, internalised stigma has been shown to be positively associated with societal levels of public stigma (Evans-Lacko et al. 2012). This suggests a need to improve the effectiveness of efforts to reduce societal stigma and also to better understand the blocks which appear to be making this endeavour so challenging (Smith 2013).

While there is a need to continue to support and improve efforts to reduce wider stigmatising attitudes the findings of the current study also suggests that internalised stigma is widespread with over 40% of people either moderately or severely affected. This means there is a pressing

need to better understand the internalisation of stigma and how best to help people affected by it. The current study has shown that attachment style is positively correlated with internalised stigma, and at a strength of association similar to that noted for other widely researched variables like depression and self-esteem. It is therefore worthy of further examination as one potential means of identifying people who are more at risk of internalised stigma. This links to calls for the consideration of a wider set of candidate variables in research on internalised stigma (Sibitz et al. 2011b; Margetić et al. 2010), that particular attention be paid to the resistance of stigma (Rüsch et al. 2006; Thoits 2011) and that interventions might usefully seek to bolster this resistance (Campellone et al. 2014). However, while there remains so much uncertainty as to the processes which underpin internalised stigma it is perhaps premature to promote particular therapeutic approaches based on this or wider research.

Disappointing results from reviews of interventions targeted at internalised stigma (Wood et al. 2016b; Mittal et al. 2012; Griffiths et al. 2014) support the idea that we have insufficient understanding of the construct to inform the development of effective responses to internalised stigma. If, however, future longitudinal research demonstrates a role for attachment style in the internalisation of stigma, then there could be a case for the wider consideration of attachment informed therapeutic interventions and approaches as described by Berry & Danquah (2016). However, if internalised stigma is contingent upon wider societal stigma, as has been widely assumed in academic and wider work, then there is also perhaps a moral case against focusing too strongly on interventions. Such interventions are arguably designed to 'fix a problem' in the very people who are victims of public ignorance and prejudice. Perhaps it is therefore more advisable from both evidence based and moral standpoints to focus efforts on continuing to improve public attitudes, while also proactively identifying those people in receipt of services who are most at risk of internalised stigma and its associated negative outcomes, and to adapt service responses accordingly.

The review of literature for this study has shown that social support is the social and relational factor most consistently linked with internalised stigma. Given social support appears to

provide a buffer against the internalisation of perceived stigma, mental health providers should be concerned with the social networks of people in receipt of their services, seeking to encourage the development of social support where it is found to be lacking. This perhaps assumes added salience from an attachment perspective given the perception of social support is in part contingent upon attachment style (Stanton & Campbell 2014; Vogel & Wei 2005).

Finally, services and therapists should also be aware of the finding from the literature review for this study that group based approaches to reducing the effects of internal stigma may be contingent upon the extent to which people have already internalised negative stereotypes. The finding that in certain circumstances group participation can have negative consequences suggest there is a case for the careful targeting of group based anti-stigma interventions.

6.6.Recommendations for further research

Given the internalisation of stigma is a process which takes place over time, and the paucity of evidence from which it is possible to draw causal inferences, there should be an increased emphasis upon longitudinal research. Of particular relevance would be research with young people who are identified as being at high risk of later developing mental health problems and or people in receipt of early intervention services. The review of literature for this study would suggest that they are less likely to have internalised stigma but may be at risk of doing so over time, particularly with later hospital admission (Link et al. 1989; Cerit et al. 2012). This suggests that measuring internalised stigma prospectively with such a group could provide new clues as to the processes at play. It may also offer clues as to why some are more resistant to the internalisation of stigma.

While it has been shown that the vast majority of research in the field has focused on diagnostic groupings the findings of this study suggest that internalised stigma is a significant concern in a diagnostically heterogeneous sample. While this suggests a case for further transdiagnostic research, any such research could usefully employ more representative sampling methods to improve generalisability of findings to the wider population of interest. Potential sampling frames for the random sampling of transdiagnostic groups include

community mental health team service user lists or membership lists for service user representative bodies. Transdiagnostic research might also usefully explore the influence of psychiatric symptoms in relation to internalised stigma, irrespective of diagnosis.

The findings of this study suggest that attachment style and wider social and relational factors may play some role in the internalisation of stigma and future research should build on this learning. Firstly, there is a case for research which seeks to more fully assess adult attachment style. All self-report measures are prone to bias (van de Mortel 2008) and such issues are perhaps more pronounced with measurement of insecure attachment where characteristics like self-reliance, mistrust of others or excessive concern with other people's appraisals are prominent. Supplementing self-report measures with third party evaluations or considering the use of interview techniques could lead to more accurate assessment of attachment style than was available in this survey based study. Consideration might also be given to employing laboratory based methods where variables can be more carefully manipulated, and their influence evaluated. For example, assessing people's reactions to a variety of stigmatising scenarios in the presence or absence of hypothesised relational and attachment relevant buffers.

There may also be merit in supplementing adult attachment assessment with a measure of adverse childhood experiences. The presence of adverse childhood experiences have been linked prospectively with a diverse range of negative outcomes (Bellis et al. 2013), including a variety of mental health problems (McCabe et al. 2011; Kessler et al. 2010), so they may be worthy of investigation as potential early life contributors to later internalised stigma.

As described earlier, it is possible to speculate that the connection between social support and attachment style may play some role in jointly determining individual responses to stigma. In reviewing evidence from the fields of attachment and social support research, Stanton & Campbell (2014) describe their potential to have combined effects on health outcomes. They show that while perceived social support has a positive influence on both psychological and

physiological health outcomes, the perception of social support may be negatively influenced by insecure attachment (see, for example, Vogel & Wei 2005). More encouragingly Stanton and Campbell (2014) cite evidence showing that where people with anxious or avoidant attachment styles *do* perceive social support that it can have beneficial effects. In the current study's literature review it has been shown that social support can have a buffering effect against the internalisation of stigma (for example, Lysaker et al. 2007) but it is plausible that such an effect may be controlled in some way by insecure attachment. This would suggest that research which aids understanding of what facilitates or inhibits people's access to that buffer might inform potential approaches to challenge internalised stigma. In sum, future research in this area should include measures of actual and perceived social support along with attachment style in order to better understand their interactions and influences upon the internalisation of stigma.

Finally, future research might also consider a wider assessment of stigma and discrimination in the context of attachment. In particular, there may be merit in supplementing the measurement of perceived public stigma with a measure of experienced stigma and discrimination, for example applying the Discriminations and Stigma Scale (DISC: Thornicroft et al. 2009). This could allow for a fuller assessment of potential steps in the internalisation of stigma than were possible in this study. An alternative approach to including a separate measure of experienced stigma would be to use the full version of the ISMI scale, given it includes a measurable discrimination experience subdomain (Boyd Ritsher, Otilingam & Grajales 2003)

The proposal for the inclusion of an additional measure of experienced stigma is supported by the unremarkable strength of association between internalised stigma and perceived public stigma in the current study and also mixed results on its role in wider studies. It is possible, for example, that experienced stigma is a stronger predictor of internalised stigma than the simple perception of stigma or that internalised stigma is in some way dependent upon the interaction between perceived and experienced stigma. It is also of course possible that

internalised stigma is less a consequence of either perceived or experienced stigma than is widely assumed and more the consequence of a wider variety of contributory factors. Precedents for alternative models can be identified in the literature. For example, Quinn, Williams and Weisz (2015) found that the effect of experienced stigma and discrimination on internalised stigma was fully mediated by the extent to which people anticipated stigma.

7. CONCLUSIONS

A novel study of the concept of internal stigma in adults with experiences of mental health problems has been completed. This study proposed that one potential way to better understand the disabling phenomenon of internalised stigma was to consider the contribution of insecure attachment in determining responses to stigma. This research was encouraged by a number of factors. These included significant gaps in understanding about the underlying processes involved in the internalisation of mental health stigma. Better understanding these processes could help explain why people affected by mental health problems respond differently to stigma and potentially support the identification of people most at risk of its internalisation. Related to these evidence gaps, and a further rationale for the research approach adopted in this study, are calls from academics in the field for the consideration of a wider set of potentially contributory variables. Neither modified labelling or social cognitive theoretical models of internal stigma have focused on more fixed personal characteristics as potential determinants of internalised stigma.

The specific focus on attachment style was informed by general literature on the influence of insecure attachment on stigma relevant processes including appraisals of threat, responses to distress and psychiatric and other outcomes in adults. It also drew on literature from other groups of people exposed to public stigma, where insecure attachment style had been shown to play some role in stigma relevant experiences. From literature reviewed for this study on the role of social and relational factors in internalised stigma just one other study was identified in an adult mental health context where attachment style, internalised stigma and their interactions were considered. However, this paper was specifically concerned with attachment style and internalised stigma in the context of student mental health help seeking so was quite distinct from the current study. No papers were identified where insecure attachment was hypothesised as moderating the internalisation of perceived public stigma making this study unique in mental health research.

The lack of directly comparable literature necessitated a broad yet systematic literature review which considered the role of social and relational factors in internalised stigma. The search strategy led to the inclusion of 43 relevant studies with findings synthesised as far as was possible under five main groupings. These were: social support, characteristics and perceptions of relationships, close and intimate relationships, group identification and participation, social factors in service use. The search suggested that no similar systematic review examining internalised stigma in the context of social and relational factors had been published to date. The vast majority of included studies were observational making it impossible to draw causal conclusions and, given the diverse nature of the constructs included, it was also hard to synthesise findings in some groupings. Despite these limitations new knowledge was generated on the role of social and relational factors in internalised stigma.

It was shown that social support was the social-relational factor most consistently linked with internalised stigma, potentially playing a buffering role against stigma's internalisation. Supported with some longitudinal research, this finding is of relevance in the context of attachment theory given the perception of, and access to, social support may be in part contingent upon attachment style. Additionally, if poor social support contributes towards a vulnerability to the negative effects of stigma, then mental health services should actively support people in receipt of their services in the development of social networks. There were also indications in the review findings that, beyond the mere presence or absence of social support, the characteristics and perceptions of social relationships may also be connected with the internalisation of stigma. This offered encouragement to the current study, which sought to examine internal stigma and relational dynamics and perceptions through the lens of attachment theory.

Elsewhere, the literature review reported on the role of group identity and group participation on internalised stigma. Interest in the role of groups as a potential buffer against the negative effects of stigma was derived from research with other groups of people prone to societal

stigma and discrimination, where group identity has been shown to contribute to a collective process of resistance and stereotype rejection. However, the review for this study suggested there was little support for this proposition in an adult mental health context. Indeed, some findings suggested that group identification could have both negative and positive consequences in relation to stigma responses. It was also shown that positive outcomes from participation in mutual support groups appeared to be partly contingent upon the extent to which members had already internalised stigma and on their access to coping strategies. This suggests that careful consideration should be given to targeting such interventions accordingly and also that further research is needed to better understand the complex interaction between groups and stigma responses for adults affected by mental health problems.

Turning to the main results the only hypothesis to be supported was that perceived public stigma would be positively associated with internalised stigma (hypothesis one). According to social cognitive theorists the perception of wider public stigma by people affected by mental health problems is a necessary precondition for the internalisation of stigma but is not sufficient in and of itself to determine internalisation. It was though notable that the strength of correlation between perceived public stigma and internalised stigma was relatively weak and that other included variables were more strongly correlated with internalised stigma. However, support for the unique contribution of perceived public stigma to internalised stigma was derived from later regression based analysis where it was found to be the only variable to make a statistically significant unique contribution to a hierarchical model where internalised stigma was the outcome.

Internalised stigma was relatively widespread in the current sample with 40% of people moderately or severely affected. It was also shown that levels of perceived public stigma reported in the current sample were higher than those found in previous research using the Stig-9 measure in Germany. This suggests public stigma was still perceived to be a significant problem in this sample despite widespread and high profile efforts to reduce stigmatising attitudes in the general public. While interventions to reduce negative impacts of internalised

stigma are increasingly widespread their effectiveness is very much in question. Given these and wider findings of continued high levels of perceived and experienced stigma and discrimination in the UK there is an argument to suggest that work is needed to more forcefully challenge stigma and discrimination towards people affected by mental health problems. This should perhaps take precedence over internalised stigma reduction interventions, not least because there is a risk to be seen as 'problematising' the victims of public prejudice and ignorance. There does, however, remain a strong case for the improved identification of people most at risk of internal stigma given it is so widely associated with negative outcomes. Similarly, better understanding what determines variable levels of resistance to wider stigmatising attitudes should be prioritised.

Initial correlational analysis showed that both insecure attachment styles were relevant covariates of internalised stigma. The strength of relationship between anxious attachment and internalised stigma in particular was similar to other widely researched covariates including self-esteem and depression. This in itself suggests that attachment style is worthy of further consideration in future research, particularly in light of the review findings on the relevance of social support. However, from more detailed regression based analysis it was clear that neither anxious or avoidant attachment styles played a role in determining internalised stigma above and beyond the influence of other included variables (hypotheses two and three). In other words, neither anxious or avoidant attachment explained any of the remaining variance in internalised stigma when controlling for the effects of self-esteem, wellbeing, depression and work and social function. Further, there were no moderating effects observed between perceived public stigma and either of the two insecure attachment styles measured. This means that there was no statistically significant combined effect between perceived public stigma and either anxious or avoidant attachment on internalised stigma and hypotheses four and five were therefore not supported. This means that in the current sample insecure attachment was not a necessary condition for the internalisation of perceived public stigma. Wider research suggests that failing to demonstrate an effect for avoidant attachment style in

relation to stigma relevant processes is not uncommon, but it is less common to find no effect for anxious attachment style.

There could be a variety of reasons for the failure to demonstrate the hypothesised effects of anxious and avoidant attachment on the internalisation of stigma. These include the possibility of a Type II error, i.e. the failure demonstrates an effect where one does exist. There were a number of limitations in the design and execution of the current study which could have contributed to such an error. These included issues with the measurement of key variables and the convenience sampling approach adopted. There is also, of course, the possibility that attachment style as measured in adults with experiences of mental health problems is not an important determinant of the internalisation of stigma. However, given the novel nature of this study and limitations in its design, to have real confidence in this possibility further research is required. These findings should be treated as exploratory and it is certainly too early to abandon further research into the potential role of attachment style in the internalisation of stigma. It is particularly important that future research in the field apply longitudinal methods. While such methods are costly and complex to realise it is only through testing people's experience of, and response to, stigma over time that we can better understand and address any underpinning causality that determines which people are more or less likely to be negatively affected by stigma. The internalisation of stigma is after all a process which takes place over time and observational studies can only ever provide clues as to potential causality. Research which seeks to examine stigma processes prospectively amongst people at high risk of developing mental health problems or in people in receipt of services for a first episode of a mental health problem may prove to be particularly useful as they could allow for a detailed examination of the emergence of, or resistance to, internalised stigma. Until this type of longitudinal research happens well intentioned efforts to reduce internalised stigma amongst people affected may continue to be of limited effectiveness.

The sociologist John Manzo once provocatively suggested that stigma as a term "has become under-defined and over-used" (Manzo 2004, p.401) He also argued that it was a wholly

inadequate to describe the experiences of people who find themselves *othered* by a majority group. While this study may have added to general academic uncertainty around internalised stigma in mental health it has shown that considering a wider set of potentially contributory factors has merit. We should, however, keep in mind that questions about the meaning of stigma and the mechanisms which determine its effect do not diminish the fact that people affected by mental health problems routinely report feeling marginalised, discriminated against and subject to unwarranted stereotypes and prejudice. Whatever we call it, stigma affects people, and it affects some people considerably more than others. As long as that is the case, as researchers we have a moral duty to continue to scientifically test theory and propose new solutions.

8. REFERENCES

Adewuya, A.O., Owoeye, A.O., Erinfolami, A.O. & Ola, B.A., 2011. Correlates of self-stigma among outpatients with mental illness in Lagos, Nigeria. *The International Journal of Social Psychiatry*, 57(4), pp.418–427.

Ahmed, A.O., Birgenheir, D., Buckley, P.F. & Mabe, P.A., 2013. A psychometric study of recovery among Certified Peer Specialists. *Psychiatry Research*, 209(3), pp.721–731.

Ainsworth, M.D.S., Blehar, M.C., Waters, E., & Wall, S., 1978. *Patterns of attachment: Assessed in the strange situation and at home*. Hillsdale, New Jersey: Erlbaum.

Arbuckle, R., Berry, K., Taylor, J.L. & Kennedy, S., 2012. Service user attachments to psychiatric key workers and teams. *Social Psychiatry and Psychiatric Epidemiology*, 47(5), pp.817–825.

Austin, E.J., Deary, I.J., Gibson, G.J., McGregor, M.J. & Dent, J.B., 1998. Individual response spread in self-report scales: Personality correlations and consequences. *Personality and Individual Differences*, 24(3), pp.421–438.

Bakermans-Kranenburg, M. & van IJzendoorn, M.H., 2009. The first 10,000 Adult Attachment Interviews: Distributions of adult attachment representations in clinical and non-clinical groups. *Attachment and Human Development*, 11(3), pp.223–263.

Baron, R.M. & Kenny, D.A, 1986. The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), pp.1173–82.

Barrett, E.A., Sundet, K., Faerden, A., Agartz, I., Bratlien, U., Romm, K.L., Mork, E., Rossberg, J.I., Steen, N.E., Andreassen, O.A. & Melle, I., 2010. Suicidality in first episode psychosis is associated with insight and negative beliefs about psychosis. *Schizophrenia Research*, 123(2–3), pp.257–262.

Bartholomew, K., 1990. Avoidance of Intimacy: An Attachment Perspective. *Journal of Social and Personal Relationships*, 7(2), pp.147–178.

Bartholomew, K. & Horowitz, L.M., 1991. Attachment styles among young adults. A test of a four-category model. *Journal of Personality and Social Psychology*, 61, pp.226–244.

Bauer, D.J. & Curran, P.J., 2005. Probing interactions in fixed and multilevel regression: inferential and graphical techniques. *Multivariate Behavioral Research*, 40(3), pp 373-400.

Bauer, M.S., Crits-Christoph, P., Ball, W. A, Dewees, E., McAllister, T., Alahi, P., Cacciola, J. & Whybrow, P.C., 1991. Independent assessment of manic and depressive symptoms by self-rating. Scale characteristics and implications for the study of mania. *Archives of General Psychiatry*, 48, pp.807–812.

Bauer, M., Vojta, C., Kinosian, B., Altshuler, L. & Glick, H., 2000. The Internal State Scale: Replication of its discriminating abilities in a multisite, public sector sample. *Bipolar Disorders*, 2(4), pp.340–346.

Bauer, G.R., Braimoh, J., Scheim, A.I. & Dharma, C., 2017. Transgender-inclusive measures of sex/gender for population surveys: Mixed methods evaluation and recommendations. *PLoS ONE*, 12(5), pp.1–28.

Bellis, M., Lowey, H., Leckenby, N., Hughes, K. & Harrison, D., 2013. Adverse childhood experiences: retrospective study to determine their impact on adult health behaviours and health outcomes in a UK population. *Journal of Public Health*, 36(1), pp.81–91.

Ben-Zeev, D., Frounfelker, R., Morris, S. & Corrigan, P.W., 2012. Predictors of Self-Stigma in Schizophrenia: New Insights Using Mobile Technologies. *Journal of Dual Diagnosis*, 8(4), pp.305–314.

Berry, K., Wearden, A., Barrowclough, C. & Liversidge, T., 2006. Attachment styles, interpersonal relationships and psychotic phenomena in a non-clinical student sample. *Personality and Individual Differences*, 41(4), pp.707–718.

Berry, K., Band, R., Corcoran, R., Barrowclough, C. & Wearden, A., 2007. Attachment styles, earlier interpersonal relationships and schizotypy in a non-clinical sample. *Psychology and Psychotherapy*, 80(Pt 4), pp. 563–76.

Berry, K., Barrowclough, C. & Wearden, A., 2007. A review of the role of adult attachment style in psychosis: unexplored issues and questions for further research. *Clinical Psychology Review*, 27(4), pp.458–75.

Berry, K., Danquah, A.N. & Wallin, D., 2014. *Introduction*. In Danquah, A.N. & Berry, K. (Eds), Attachment Theory in Adult Mental Health. London: Routledge.

Berry, K. & Danquah, A., 2016. Attachment-informed therapy for adults: Towards a unifying perspective on practice. *Psychology and Psychotherapy: Theory, Research and Practice*, 89(1), pp.15–32.

Berry, K. & Wearden, A., 2006. Attachment styles, interpersonal relationships and psychotic phenomena in a non-clinical student sample. *Personality and Individual Differences*, 41, pp.707–718.

Bifftu, B., Dachew, B. & Tiruneh, B., 2014. Stigma resistance among people with schizophrenia at Amanuel mental specialized hospital Addis Ababa, Ethiopia: a cross-sectional institution based study. *BMC Psychiatry*, 14(1), p.259.

Bigler, M., Neimeyer, G.J. & Brown, E., 2001. The divided self revisited: effects of self-concept clarity and self-concept differentiation on psychological adjustment. *Journal of Social and Clinical Psychology*, 20(3), pp.396–415.

Birnbaum, M.H., 2004. *Methodological and ethical issues in conducting social psychology research via the Internet*. In C. Sansone, C.C. Morf & A.T. Panter (Eds.), Handbook of methods in social psychology. Thousand Oaks, CA: Sage.

Björkman, T., Svensson, B. & Lundberg, B., 2007. Experiences of stigma among people with severe mental illness. Reliability, acceptability and construct validity of the Swedish versions of two stigma scales measuring devaluation/discrimination and rejection experiences. *Nordic Journal of Psychiatry*, 61(5), pp.332–8.

Blake, R. L., & McKay, D. A., 1986. A single-item measure of social supports as a predictor of morbidity. *The Journal of Family Practice*, 22(1), pp.82–84.

Bono, C., Ried, L.D., Kimberlin, C. & Vogel, B., 2007. Missing data on the Center for Epidemiologic Studies Depression Scale: a comparison of 4 imputation techniques. *Research in Social & Administrative Pharmacy*, 3(1), pp.1–27.

Bowlby, J., 1969. *Attachment and loss, Volume 1. Attachment*. New York: Basic Books.

Bowlby, J., 1973. *Attachment and loss, Volume 2. Separation: Anxiety and anger*. New York: Basic Books.

Bowlby, J., 1980. *Attachment and loss, Volume 3. Sadness and depression.* New York: Basic Books.

Bowlby, J., 2005. *A secure base.* Abingdon: Routledge.

Bowling, A., 2009. *Research methods in health: investigating health and health services*. Maidenhead: McGraw-Hill Open University Press.

Boyd, J.E., Otilingam, P.G. & DeForge, B.R., 2014. Brief version of the Internalized Stigma of Mental Illness (ISMI) scale: psychometric properties and relationship to depression, self esteem, recovery orientation, empowerment, and perceived devaluation and discrimination. *Psychiatric Rehabilitation Journal*, 37(1), pp. 17–23.

Boyd Ritsher, J., Otilingam, P.G. & Grajales, M., 2003. Internalized stigma of mental illness: psychometric properties of a new measure. *Psychiatry Research*, 121(1), pp. 31–49.

Boysen, G., Ebersole, A., Casner, R. & Coston, N., 2014. Gendered mental disorders: Masculine and feminine stereotypes about mental disorders and their relation to stigma. *Journal of Social Psychology*, 154(6), pp.546–565.

BPS., 2013. *Ethics Guidelines for Internet-mediated Research*. INF206/1.2013. Leicester: British Psychological Society.

Branscombe, N.R., Schmitt, M.T. & Harvey, R.D., 1999. Perceiving pervasive discrimination among African-Americans: Implications for group identification and well being. *Journal of Personality and Social Psychology*, 77, pp. 135–149.

Brennan, K.A., Clark, C.L., & Shaver, P.R., 1998. *Self-report measurement of adult attachment: An integrative overview.* In Simpson, J.A. & Rholes, W.S. (Eds.), Attachment Theory and Close Relationships. London: Guilford Press

Bretherton, I., 2013. Attachment Theory: Retrospect and Prospect. *Monographs of the Society for Research in Child Development*, 50(1), pp.3–35.

Brohan, E., Elgie, R., Sartorius, N. & Thornicroft, G., 2010a. Self-stigma, empowerment and perceived discrimination among people with schizophrenia in 14 European countries: The GAMIAN-Europe study. *Schizophrenia Research*, 122(1-3), pp.232–238.

Brohan, E., Gauci, D., Sartorius, N. & Thornicroft, G., 2011. Self-stigma, empowerment and perceived discrimination among people with bipolar disorder or depression in 13 European countries: the GAMIAN-Europe study. *Journal of Affective Disorders*, 129(1-3), pp.56–63.

Brohan, E., Slade, M., Clement, S. & Thornicroft, G., 2010b. Experiences of mental illness stigma, prejudice and discrimination: a review of measures. *BMC Health Services Research*, 10, p.80.

Brohan, E. & Thornicroft, G., 2010. Stigma and discrimination of mental health problems: Workplace implications. *Occupational Medicine*, 60(6), pp.414–415.

Brouwers, E.P.M., Mathijssen, J., Van Bortel, T., Knifton, L., Wahlbeck, K., Van Audenhove, C., Kadri, N., Chang, C., Goud, B.R., Ballester, D., Tófoli, L.F., Bello, R., Jorge-Monteiro, M.F., Zäske, H., Milaćić, I., Uçok, A., Bonetto, C., Lasalvia, A., Thornicroft, G. & Van Weeghel, J., 2016. Discrimination in the workplace, reported by people with major depressive disorder: a cross-sectional study in 35 countries. *BMJ Open*, 6(2), p.e009961.

Bruner, J. 1990. *Acts of Meaning*. Cambridge, MA: Harvard University Press.

Bryman, A., 1984. The debate about quantitative and qualitative research: a question of method or epistemology, *The British Journal of Sociology*, 35(1), pp.75-92.

Bryman, A., 2012. *Social Research Methods*: 4th edition. Oxford: Oxford University Press.

Buchanan, F., 2013. A critical analysis of the use of attachment theory in cases of domestic violence. *Critical Social Work*, 14(2), pp.19–31.

Bucci, S., Roberts, N.H., Danquah, A.N. & Berry, K., 2014. Using attachment theory to inform the design and delivery of mental health services: A systematic review of the literature. *Psychology and Psychotherapy*, pp.1–20.

Cabassa, L.J., Andel, N. & Whitley, R., 2013. Picturing Recovery: A Photovoice Exploration of Recovery Dimensions Among People with Serious Mental Illness. *Psychiatric Services*, 64(9), pp.837–842.

Campellone, T.R., Caponigro, J.M. & Kring, A.M., 2014. The power to resist: The relationship between power, stigma, and negative symptoms in schizophrenia. *Psychiatry Research*, 215(2), pp.280–285.

Carter, S.M. & Little, M., 2007. Taking Action : Epistemologies , Methodologies , and Methods in Qualitative Research. *Qualitative Health Research*, 17(10), pp.1316–28.

Carter, B. & New, C. 2004. *Making Realism Work: Realist Social Theory and Empirical Research*. London: Routledge.

Cerit, C., Filizer, A., Tural, Ü. & Tufan, A.E., 2012. Stigma: A core factor on predicting functionality in bipolar disorder. *Comprehensive Psychiatry*, 53(5), pp.484–489.

Chang, C.-C., Wu, T.-H., Chen, C.-Y., Wang, J.-D., & Lin, C.-Y., 2014. Psychometric Evaluation of the Internalized Stigma of Mental Illness Scale for Patients with Mental Illnesses: Measurement Invariance across Time. *PLoS ONE*, 9(6), e98767.

Cheang, S.I. & Davis, J.M., 2014. Influences of face, stigma, and psychological symptoms on help-seeking attitudes in Macao. *PsyCh Journal*, 3(3), pp.222–230.

Chen, F., Wu, H.C. & Huang, C.J., 2014. Influences of Attribution and Stigma on Working Relationships with Providers Practicing Western Psychiatry in the Taiwanese Context. *Psychiatric Quarterly*, 85(4), pp.439–451.

Cheng, H.-L., Kwan, K.-L.K. & Sevig, T., 2013. Racial and ethnic minority college students' stigma associated with seeking psychological help: Examining psychocultural correlates. *Journal of Counseling Psychology*, 60(1), pp.98–111.

Cheng, H.-L., McDermott, R.C. & Lopez, F.G. 2015. Mental Health, Self-Stigma, and Help-Seeking Intentions Among Emerging Adults: An Attachment Perspective Adult Attachment and Help Seeking. *The Counseling Psychologist*, 43(3): 463–487.

Chronister, J., Chou, C.-Ch. & Liao, H.-Y., 2013. The role of stigma coping and social support in mediating the effect of societal stigma on internalized stigma, mental health recovery, and quality of life among people with serious mental illness. *Journal of Community Psychology*, 41(5), pp.582–600.

Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., Morgan, C., Rüsch, N., Brown, J.S.L. & Thornicroft, G. 2015. What is the impact of

mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine*, 45(2015): 1–17.

Clench, H., 2017. *Too attached to attachment theory?* [Internet]. Available from: https://thepsychologist.bps.org.uk/volume-30/may-2017/too-attached-attachment [Accessed January 22nd 2018]

Cohen, J., 1988. *Statistical Power Analysis for the Behavioural Sciences*. New York: Academic Press.

Contratto, S., 2002. *A feminist critique of attachment theory and evolutionary psychology*. In M. Ballou, & L. S. Brown, (Eds.), Rethinking mental health and disorder: Feminist perspectives. New York, NY: The Guilford Press.

Cook, W.L., 2000. Understanding attachment security in family context. *Journal of Personality and Social Psychology*, 78(2), pp.285–294.

Corrigan, P.W., Bink, A.B., Fokuo, J.K. & Schmidt, A., 2015. The public stigma of mental illness means a difference between you and me. *Psychiatry Research*, 226(1), pp.186–191.

Corrigan, P.W., Isaarkowitz, F.E., Watson, A.C., Markowitz, F.E. & Watson, A.C., 2004. Structural Levels of Mental Illness Stigma and Discrimination. *Schizophrenia Bulletin*, 30(3), pp.481–91.

Corrigan, P.W., Larson, J.E. & Rüsch, N., 2009. Self-stigma and the "why try" effect: impact on life goals and evidence-based practices. *World Psychiatry*, 8(2), pp.75–81.

Corrigan, P., River, P., Lundin, R., Penn, D., Uphoff-Wasowski, K., Campion, J., Mathisen, J., Gagnon, C., Bergman, M., Goldstein, H. & Kubiak, M., 2001. Three Strategies for Changing Attributions about Severe Mental Illness. *Schizophrenia Bulletin*, 27(2), pp.187–195.

Corrigan, P.W., Scott Morris, P.B., Michaels, P.J., Jennifer Rafacz, M.D. & Rüsch, N., 2012. Challenging the Public Stigma of Mental Illness: A Meta-Analysis of Outcome Studies. *Psychiatric Services*, 63(10), pp.963–973.

Corrigan, P.W., Sokol, K.A. & Rüsch, N., 2013., The impact of self-stigma and mutual help programs on the quality of life of people with serious mental illnesses. *Community Mental Health Journal*, 49(1), pp.1–6.

Corrigan, P.W. & Watson, A.C., 2002. The paradox of self-stigma and mental illness. *Clinical Psychology: Science and Practice*, 9(1), pp.35–53.

Corrigan, P.W., Watson, A.C. & Barr, L., 2006. The Self-Stigma of Mental Illness: Implications for Self-esteem and Self-efficacy. *Journal of Social and Clinical Psychology*, 25(9), pp.875–884.

Corrigan, P.W., Watson, A.C., Byrne, P. & Davis, K.E., 2005. Mental Illness Stigma: Problem of Public Health or Social Justice? *Social Work*, 50(4), pp.363–368.

Crabtree, J.W., Haslam, S.A, Postmes, T. & Haslam, C., 2010. Mental Health Support Groups, Stigma, and Self Esteem: Positive and Negative Implications of Group Identification. *Journal of Social Issues*, 66(3), pp.553–569.

Crawford, T.N., Livesley, W.J., Jang, K.L., Shaver, P.R., Cohen, P. & Ganiban, J., 2007. Insecure attachment and personality disorder: a twin study of adults. *European Journal of Personality*, 21(2), pp.191–208.

CRD, 2009. *Systematic Reviews: CRD's guidance for undertaking reviews in health care*. Centre for Reviews and Dissemination, York: University of York

CUCO, 2013. *What is the best time to post to twitter or facebook?* [Internet]. Available from: http://www.cucocreative.co.uk/articles/what-is-the-best-time-to-post-to-twitter-or-facebook/ [Accessed January 8th 2016].

Donders, A. R. T., van der Heijden, G. J. M. G., Stijnen, T., & Moons, K. G. M., 2006. Review: a gentle introduction to imputation of missing values. *Journal of Clinical Epidemiology*, 59(10), pp. 1087–91.

Doron, G., Moulding, R., Kyrios, M., Nedeljkovic, M. & Mikulincer, M., 2009. Adult attachment insecurities are related to obsessive compulsive phenomena. *Journal of Social and Clinical Psychology*, 28(8), pp.1022–1049.

Drapalski, A. L., Lucksted, A., Perrin, P. B., Aakre, J. M., Brown, C. H., DeForge, B. R., & Boyd, J. E., 2013. A Model of Internalized Stigma and Its Effects on People With Mental Illness. *Psychiatric Services*, 64(3), pp. 264-269.

Drayton, M., Birchwood, M.,&Trower, P., 1998. Early attachment experience and recovery from psychosis. *British Journal of Clinical Psychology*, 37, pp. 269−284.

Edgell, S. E., & Noon, S. M., 1984. Effect of violation of normality on the t test of the correlation coefficient. *Psychological Bulletin*, 95(3), 576–583.

Edwards, P.J., Roberts, I., Clarke, M.J., DiGuiseppi, C., Wentz, R., Kwan, I., Cooper, R., Felix, L.M. & Pratap, S., 2009. Methods to increase response to postal and electronic questionnaires. *Cochrane Database of Systematic Reviews*, Issue 3. Art. No.: MR000008.

Ehrlich-Ben Or, S., Hasson-Ohayon, I., Feingold, D., Vahab, K., Amiaz, R., Weiser, M. & Lysaker, P.H., 2013. Meaning in life, insight and self-stigma among people with severe mental illness. *Comprehensive Psychiatry*, 54(2), pp.195–200.

Ein-Dor, T. & Doron, G. 2015. *Attachment and psychopathology.* In Attachment Theory and Research: New Directions and Emerging Themes, eds J. A. Simpson and S. Rholes. London: Guildford Press

Ein-Dor, T. & Hirschberger, G., 2016. Rethinking attachment theory: from a theory of relationships to a theory of individual and group survival. *Current Directions in Psychological Science*, 25(4), pp.223–227.

Ein-Dor, T., Viglin, D. & Doron, G., 2016. Extending the transdiagnostic model of attachment and psychopathology. *Frontiers in Psychology*, 7(MAR), pp.1–6.

Elizur, Y. & Mintzer, A., 2003. Gay males' intimate relationship quality : The roles of attachment security , gay identity , social support , and income. *Personal Relationships*, 10(3), pp.411–435.

Engel, G.L., 1977. The need for a new medical model: a challenge for biomedicine. *Science*, 196(4286), pp.129–136.

Evans-Lacko, S., Brohan, E., Mojtabai, R., & Thornicroft, G., 2012. Association between public views of mental illness and self-stigma among individuals with mental illness in 14 European countries. *Psychological Medicine*, 42(8), pp. 1741–1752.

Evans-Lacko, S., Corker, E., Williams, P., Henderson, C. & Thornicroft, G., 2014. Effect of the time to change anti-stigma campaign on trends in mental-illness-related public stigma among the English population in 2003-13: An analysis of survey data. *The Lancet Psychiatry*, 1(2), pp.121–128.

Fairchild, A.J. & Mackinnon, D.P., 2010. A General Model for Testing Mediation and Moderation Effects. *Prevention Science*, 10(2), pp.87–99.

Fan, W. & Yan, Z., 2010. Factors affecting response rates of the web survey: A systematic review. *Computers in Human Behavior*, 26(2), pp.132–139.

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G., 2009. Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149-1160.

Field, A., 2013. *Discovering Statistics Using IBM SPSS Statistics.* 4th ed. London: Sage.

Fraley, R.C., 2002. Attachment Stability from Infancy to Adulthood: Meta-Analysis and Dynamic Modeling of Developmental Mechanisms. *Personality and Social Psychology Review*. 6(2), pp. 123–151.

Fraley, R.C. & Brumbaugh, C.C., 2007. Adult attachment and preemptive defenses: Converging evidence on the role of defensive exclusion at the level of encoding. *Journal of Personality*, 75(5), pp.1033–1050.

Fung., K.M.T., Tsang, H.W.H. & Corrigan, P.W., 2008. Self-stigma of people with schizophrenia as predictor of their adherence to psychosocial treatment. *Psychiatric Rehabilitation Journal*, 32(2), pp.95–104.

Gencoglu, C., Topkaya, N., Sahin, E. & Kaya, L., 2016. Attachment Styles as Predictors of Stigma Tendency in Adults. *Educational Process: International Journal*, 5(1), pp.2147–901.

George, C, Kaplan, N, & Main, M., 1985. *Adult Attachment Interview*. Unpublished manuscript, University of California, Berkeley.

Gierk, B., Murray, A.M., Kohlmann, S. & Löwe, B. Measuring the perceived stigma of mental illness with Stig-9: *A re-conceptualisation of the Perceived-Devaluation-Discrimination-Scale*. Manuscript submitted.

Global Burden of Disease Study 2013 Collaborators, 2015. Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet* 386, pp. 743–800.

Goffman, E., 1963. *Stigma: Notes on the Management of Spoiled Identity*. New Jersey: Prentice Hill Inc.

Grant, M.J. & Booth, A., 2009. A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal*, 26(2), pp.91–108.

Grant, C. & Osanloo, A., 2014. Understanding, Selecting, and Integrating a Theoretical Framework in Dissertation Research: Creating the Blueprint for Your "House." *Administrative Issues Journal: Education Practice and Research*, v4(n2), pp.12–26.

Graves, P.L., Wang, N., Mead, L.A., Johnson, J.V. & Klag, M., 1998. Youthful precursors of midlife social support. *Journal of Personality and Social Psychology*, 74(5), pp.1329–36.

Green S, Higgins JPT, Alderson P, Clarke M, Mulrow CD, Oxman AD. *Chapter 1: Introduction*. In: Higgins JPT, Green S (eds), Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0. [Internet]. The Cochrane Collaboration, 2011. Available from: <http://handbook.cochrane.org/> [Accessed 24th January 2018].

Greenhalgh, T., 1997. Papers that summarise other papers (systematic reviews and meta-analyses). *BMJ: British Medical Journal*, 315(7109), pp.672–675.

Griffiths, K., Carron-Arthur, B., Parsons, A. & Reid, R., 2014. Effectiveness of programs for reducing the stigma associated with mental disorders. A meta-analysis of randomized controlled trials. *World Psychiatry*, 13(2), pp.161–175.

Guin, T.D., Baker, R., Mechling, J. & Ruylea, E., 2012. Myths and realities of respondent engagement in online surveys. *International Journal of Market Research*, 54(5), pp.1–21.

Gumley, A., Taylor, H., Schwannauer, M. & MacBeth, A., 2014. A systematic review of attachment and psychosis: measurement, construct validity and outcomes. *Acta Psychiatrica Scandinavica*, 129(4), pp.257–74.

Hasson-Ohayon, I., Ehrlich-Ben Or, S., Vahab, K., Amiaz, R., Weiser, M. & Roe, D., 2012. Insight into mental illness and self-stigma: the mediating role of shame proneness. *Psychiatry Research*, 200(2-3), pp.802–6.

Hasson-Ohayon, I., Kravetz, S., Meir, T. & Rozencwaig, S., 2009. Insight into severe mental illness, hope, and quality of life of persons with schizophrenia and schizoaffective disorders. *Psychiatry Research*, 167(3), pp.231–238.

Hasson-Ohayon, I., Mashiach–Eizenberg, M., Lysaker, P.H. & Roe, D., 2016. Self-clarity and different clusters of insight and self-stigma in mental illness. *Psychiatry Research*, 240, pp.308–313.

Hayes, A.F., 2012. PROCESS: A Versatile Computational Tool for Observed Variable Mediation, Moderation, and Conditional Process Modeling. *Unpublished Manuscript*, pp.1–39.

Hayes, A.F., 2013. *Introduction to Mediation, Moderation and Conditional Process Analysis: A regression absed approach*. London: The Guilford Press.

Hayes, A.F. & Cai, L., 2007. Using heteroskedasticity-consistent standard error estimators in OLS regression: an introduction and software implementation. *Behavior Research Methods*, 39(4), pp.709–722.

Hayes, A.F. & Rockwood, N.J., 2016. Regression-based statistical mediation and moderation analysis in clinical research: Observations, recommendations, and implementation. *Behaviour Research and Therapy*, pp.1–19.

Health and Social Care Information Centre, 2015, *Measures from the Adult Social Care Outcomes Framework: England 2014-15, Final release*. Leeds: Health and Social Care Information Centre.

Health and Social Care Information Centre, 2014. *Mental Health Bulletin: Annual report from MHMDS returns - England 2013/14*. Leeds: Health and Social Care Information Centre.

Held, P. & Owens, G.P., 2012. Stigmas and Attitudes Toward Seeking Mental Health Treatment in a Sample of Veterans and Active Duty Service Members. *Traumatology*, 19(2), pp.136–143.

Higgins, J.P.T. & Deeks, J.J. (eds), 2011. *Chapter 7: Selecting studies and collecting data*. In: Higgins, J.P.T. & Green, S. (eds). Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0. [Internet]. The Cochrane Collaboration. Available from: <http://handbook.cochrane.org/>.

Hoerger, M., 2010. Participant Dropout as a Function of Survey Length in Internet-Mediated University Studies: Implications for Study Design and Voluntary Participation in Psychological Research. *Cyberpsychology, Behavior, and Social Networking*, 13(6), pp.697–701.

Holley, L.C., Stromwall, L.K. & Bashor, K.H., 2012. Reconceptualizing stigma: toward a critical anti-oppression paradigm. *Stigma Research and Action*, 2(2), pp.51–61.

Horowitz, M.J., 1982. *Psychological Processes Induced by Illness, Injury, and Loss*. In T. Millon, C.J. Green, & R.B. Meagher, eds. Handbook of Clinical Health Psychology. Boston, MA: Springer US, pp. 53–67.

Hunt, N. & Brown, K., 2017. Systematic reviews in psychology: time to review their use? *PsyPAG Quarterly*, 104, pp.25–27.

Jahan, N., Naveed, S., Zeshan, M. & Tahir, M.A., 2016. How to Conduct a Systematic Review: A Narrative Literature Review. *Cureus*, 8(11). e864.

Jetten, J., Spears, R. & Manstead, A.S.R., 2001. Similarity as a source of differentiation: the role of group identification. *European Journal of Social Psychology*, 31, pp.621-640.

Johnson, P.O. & Neyman, J., 1936. Tests of certain linear hypotheses and their application to some educational problems. *Statistical Research Memoirs*, 1, pp.57-93.

Jones, S. & Day, C., 2008. Self appraisal and behavioural activation in the prediction of hypomanic personality and depressive symptoms. *Personality and Individual Differences*, 45(7), pp.643–648.

Kalckreuth, S., Trefflich, F. & Rummel-Kluge, C., 2014. Mental health related Internet use among psychiatric patients: a cross-sectional analysis. *BMC Psychiatry*, 14, p.368.

Kamenov, K., Cabello, M., Caballero, F.F., Cieza, A., Sabariego, C., Raggi, A., Anczewska, M., Pitkänen, T. & Ayuso-Mateos, J.L., 2016. Factors related to social support in neurological and mental disorders. *PLoS ONE*, 11(2), pp.1–14.

Kanninen, K., Qouta, S. & Punamäki, R.L., 2003. Personality and Trauma: Adult Attachment and Posttraumatic Distress Among Former Political Prisoners. *Peace and Conflict: Journal of Peace Psychology*, 9(2), pp.97–126.

Kao, Y.C., Lien, Y.J., Chang, H.A., Wang, S.C., Tzeng, N.S. & Loh, C.H., 2016. Evidence for the indirect effects of perceived public stigma on psychosocial outcomes: The mediating role of self-stigma. *Psychiatry Research*, 240, pp.187–195.

Kaplan, A. 1964. *The Conduct of Enquiry: Methodology for Behavioural Science*. San Francisco: Chandler.

Kendra, M.S., Mohr, J.J. & Pollard, J.W., 2014. The Stigma of Having Psychological Problems: Relations with Engagement, Working Alliance, and Depression in Psychotherapy. *Psychotherapy*, 51(4), pp.563–573.

Kessler, R. C., McLaughlin, K. A., Green, J. G., Gruber, M. J., Sampson, N. A., Zaslavsky, A. M., Aguilar-Gaxiola, S., Alhamzawi, A. O., Alonso, J., Angermeyer, M., Benjet, C., Bromet, E., Chatterji, S., de Girolamo, G., Demyttenaere, K., Fayyad, J., Florescu, S., Gal, G., Gureje, O., Haro, J. M., Hu, C-Y., Karam, E. G., Kawakami, N., Lee, S., Lépine, J-P., Ormel, J., Posada-Villa, J., Sagar, R., Tsang, A., Ustün, T. B., Vassilev, S., Viana, M. C. &

Williams, D. R., 2010. Childhood adversities and adult psychopathology in the WHO World Mental Health Surveys. *The British Journal of Psychiatry*, 197(5), pp.378–385.

Kim, W.J., Song, Y.J., Ryu, H.-S., Ryu, V., Kim, J.M., Ha, R.Y., Lee, S.J., Namkoong, K., Ha, K. & Cho, H.-S., 2015. Internalized stigma and its psychosocial correlates in Korean patients with serious mental illness. *Psychiatry Research*, 225(3), pp.433–439.

Klohnen, E.C.C. & Bera, S., 1998. Behavioral and experimental patterns of avoidantly and securely attached women across adulthood: A 31-year longitudinal perspective. *Journal of Personality and Social Psychopathology*, 74(1), pp.211–223.

Knox, K., Fejzic, J., Mey, A, Fowler, J.L., Kelly, F., McConnell, D., Hattingh, L. & Wheeler, A.J., 2014. Mental health consumer and caregiver perceptions of stigma in Australian community pharmacies. *International Journal of Social Psychiatry*. 60(2), pp.533-543.

Kondrat, D.C., 2012. Do treatment processes matter more than stigma? The relative impacts of working alliance, provider effects, and self-stigma on consumers' perceived quality of life. *Best Practices in Mental Health: An International Journal*, 8(1), pp.85–103.

Krajewski, C., Burazeri, G. & Brand, H., 2013. Self-stigma, perceived discrimination and empowerment among people with a mental illness in six countries: Pan European stigma study. *Psychiatry Research*, 210(3), pp.1136–1146.

Kvrgic, S., Cavelti, M., Beck, E.-M., Rüsch, N. & Vauth, R., 2013. Therapeutic alliance in schizophrenia: the role of recovery orientation, self-stigma, and insight. *Psychiatry Research*, 209(1), pp.15–20.

La Guardia, J.G., Ryan, R.M., Couchman, C.E. & Deci, E.L., 2000. Within-person variation in security of attachment: A self-determination theory perspective on attachment, need fulfillment, and well-being. *Journal of Personality and Social Psychology*, 79(3), pp.367–384.

Labott, S.M., Johnson, T.P., Fendrich, M. & Feeny, N.C., 2013. Emotional risks to respondents in survey research: some empirical evidence. *Journal of Empirical Research on Human Research Ethics*, 8(4), pp.53–66.

Lannin, D.G., Vogel, D.L., Brenner, R.E. & Tucker, J.R., 2015. Predicting Self-Esteem and Intentions to Seek Counseling: The Internalized Stigma Model . *The Counseling Psychologist* , 43(1), pp.64–93.

Latentexistence, 2013. *Effective campaigning on twitter: how to avoid spamming.* [Internet]. Available from: https://www.latentexistence.me.uk/effective-campaigning-on-twitter-how-to-avoid-spamming/ [Accessed January 7th 2016].

Lawlor, A. & Kirakowski, J., 2014. Online support groups for mental health: A space for challenging self-stigma or a means of social avoidance? *Computers in Human Behavior*, 32, pp.152–161.

Lincoln, T.M., Lüllmann, E. & Rief, W., 2007. Correlates and long-term consequences of poor insight in patients with schizophrenia. A systematic review. *Schizophrenia Bulletin*, 33(6), pp.1324–1342.

Link, B.G., 1987. Understanding Labeling Effects in the Area of Mental Disorders : An Assessment of the Effects of Expectations of Rejection. *American Sociological Review*, 52(1), pp.96–112.

Link, B.G., Cullen, F.T., Struening, E., Shrout, P.E. & Bruce, P., 1989. A Modified Labeling Theory Approach to Mental Disorders: An Empirical Assessment. *American Sociological Review*, 54(3), pp.400–423.

Link, B.G. & Phelan, J.C., 2001. Conceptualizing Stigma. *Annual Review of Sociology*, 27, pp.363–385.

Livingston, J.D. & Boyd, J.E., 2010. Correlates and consequences of internalized stigma for people living with mental illness: a systematic review and meta-analysis. *Social Science & Medicine*, 71(12), pp.2150–61.

Long, J.S. & Ervin, L.H., 2000. Using Heteroscedasticity Consistent Standard Errors in the Linear Regression Model. *The American Statistician*, 54(3), pp.217–224.

Lucksted, A. & Drapalski, A., 2015. Self-Stigma Regarding Mental Illness: Definition , Impact and Relationship to Societal Stigma. *Psychiatric Rehabilitation Journal*, 38(2), pp.99–102.

Lucksted, A., Drapalski, A., Calmes, C., Forbes, C., DeForge, B. & Boyd, J., 2011. Ending self-stigma: pilot evaluation of a new intervention to reduce internalized stigma among people with mental illnesses. *Psychiatric Rehabilitation Journal*, 35(1), pp.51–54.

Lv, Y., Wolf, A. & Wang, X., 2013. Experienced stigma and self-stigma in Chinese patients with schizophrenia. *General Hospital Psychiatry*, 35(1), pp.83–88.

Lysaker, P.H., Davis, L.W., Warman, D.M., Strasburger, A. & Beattie, N., 2007. Stigma, social function and symptoms in schizophrenia and schizoaffective disorder: associations across 6 months. *Psychiatry Research*, 149(1-3), pp.89–95.

Lysaker, P.H., Roe, D. & Yanos, P.T., 2007. Toward understanding the insight paradox: internalized stigma moderates the association between insight and social functioning, hope, and self-esteem among people with schizophrenia spectrum disorders. *Schizophrenia Bulletin*, 33(1), pp.192–9.

Lysaker, P.H., Tunze, C., Yanos, P.T., Roe, D., Ringer, J. & Rand, K., 2012. Relationships between stereotyped beliefs about mental illness, discrimination experiences, and distressed mood over 1 year among persons with schizophrenia enrolled in rehabilitation. *Social Psychiatry and Psychiatric Epidemiology*, 47(6), pp.849–855.

Mackay, R., Bradstreet, S., Mcarthur, A. & Dunion, L., 2015. Dyad conversations about self-stigma in two Scottish communities. *Psychiatric Rehabilitation Journal*, 38(2), pp.194–200.

Mackinnon, D.P., 2012. *Integrating Mediators and Moderators in Research Design*. Research on Social Work Practice, 21(6), pp.675–681.

Maier, M. Bernier, A., Pekrun, R., Grossmann, K. & Zimmermann, P., 2004. Attachment working models as unconscious structures: An experimental test. *International Journal of Behavioral Development*, 28(2), pp.180–189.

Main, M., & Solomon, J., 1986. *Discovery of an insecure-disorganized/disoriented attachment pattern.* In T.B. Brazelton & M.W. Yogman (Eds.), Affective development in infancy (pp. 95–124). Westport, USA: Ablex Publishing.

Manzo, J.F., 2004. On the Sociology and Social Organization of Stigma: Some Ethnomethodological Insights. *Human Studies*, 27(4), pp.401–416.

Margetić, B.A., Jakovljević, M., Ivanec, D., Margetić, B. & Tošić, G., 2010. Relations of internalized stigma with temperament and character in patients with schizophrenia. *Comprehensive Psychiatry*, 51(6), pp.603–6.

Marks, I., 1986. *Behavioural psychotherapy: Maudsley pocket book of clinical management.* Bristol: Wright/IOP Publishing.

Mashiach-Eizenberg, M., Hasson-Ohayon, I., Yanos, P.T., Lysaker, P.H. & Roe, D., 2013. Internalized stigma and quality of life among persons with severe mental illness: the mediating roles of self-esteem and hope. *Psychiatry Research*, 208(1), pp.15–20.

McCabe, K.L., Maloney, E. A, Stain, H.J., Loughland, C.M., Carr, V.J., 2012. Relationship between childhood adversity and clinical and cognitive features in schizophrenia. *Journal of Psychiatric Research*. 46, pp. 600–607.

McClelland, G.H. & Judd, C.M., 1993. Statistical difficulties of detecting interactions and moderator effects. *Psychological Bulletin*, 114(2), pp.376–390.

McDonald, J.D., 2008. Measuring personality constructs: The advantages and disadvantages of self-reports, informant reports and behavioural assessments. *Enquire*, 1(1), pp.1–19.

McGrath, J., Saha, S., Chant, D. & Welham, J., 2008. Schizophrenia: A Concise Overview of Incidence, Prevalence, and Mortality. *Epidemiological Reviews*, 30(1), pp.67–76.

Meins, E., 2017. *Overrated: The predictive power of attachment*. [Internet]. Available from: https://thepsychologist.bps.org.uk/volume-30/january-2017/overrated-predictive-power-attachment [Accessed January 22nd 2018]

Meline, T., 2006. Selecting Studies for Systematic Review: Inclusion and Exclusion Criteria. *Contemporary Issues in Communication Science and Disorders*, 33, pp.21–27.

Mikulincer, M., Birnbaum, G., Woddis, D. & Nachmias, O., 2000. Stress and accessibility of proximity-related thoughts: Exploring the normative and intraindividual components of attachment theory. *Journal of Personality and Social Psychology*, 78(3), pp.509–523.

Mikulincer, M., Dolev, T. & Shaver, P.R., 2004. Attachment-related strategies during thought suppression: ironic rebounds and vulnerable self-representations. *Journal of Personality and Social Psychology*, 87(6), pp.940–956.

Mikulincer, M. & Orbach, I., 1995. Attachment styles and repressive defensiveness: the accessibility and architecture of affective memories. *Journal of Personality and Social Psychology*, 68(5), pp.917–25.

Mikulincer, M. & Shaver, P.R., 2003. The attachment behavioral system in adulthood: activation, psychodynamics, and interpersonal processes. *Advances in Experimental Social Psychology*, 35, pp.53–152.

Mikulincer, M. & Shaver, P.R., 2010. *Attachment in adulthood: structure, dynamics and change*. London: The Guildford Press.

Mikulincer, M. & Shaver, P.R., 2012. An attachment perspective on psychopathology. *World Psychiatry*, 11(1), pp.11–15.

Mikulincer, M., Shaver, P.R. & Horesh., N., 2006. *Attachment Bases of Emotion Regulation and Posttraumatic Adjustment.* In D.K. Snyder, J.A. Simpson & J.N. Hughes (Eds.), Emotion regulation in families: Pathways to dysfunction and health. Washington DC: America Psychological Association, pp.77-99.

Mikulincer, M., Shaver, P.R. & Pereg, D., 2003. Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and Emotion*, 27(2), pp.77–102.

Mittal, D., Sullivan, G., Chekuri, L., Allee, E. & Corrigan, P.W., 2012. Empirical Studies of Self-Stigma Reduction Strategies: A Critical Review of the Literature. *Psychiatric Services*, 63(10), pp.974–81.

Moher, D., Stewart, L. & Shekelle, P., 2015. All in the Family: Systematic reviews, rapid reviews, scoping reviews, realist reviews, and more. *Systematic Reviews*, 4(1), pp.1–2.

Moriarty, A., Jolley, S., Callanan, M.M. & Garety, P., 2012. Understanding reduced activity in psychosis: The roles of stigma and illness appraisals. *Social Psychiatry and Psychiatric Epidemiology*, 47(10), pp.1685–1693.

Morris, A., 2008. *Too attached to attachment theory*. In M. Porter, & J. Kelsd, (Eds.), Theorising and representing maternal realities. Newcastle, UK: Cambridge Scholars Publications.

Mundt, J. C., 2002. The Work and Social Adjustment Scale: a simple measure of impairment in functioning. *The British Journal of Psychiatry*, 180(5), pp. 461–464.

Mundt, J.C., Clarke, G.N., Burroughs, D., Brenneman, D.O. & Griest, J.H., 2001. Effectiveness of Antidepressant Pharmacotherapy: the Impact of Medication. *Depression and Anxiety*, 13(1): pp.1-10.

Murad, M., Asi, N., Alsawas, M. & Alahdab, F., 2016. EBM - New Evidence Pyramid. *Evidence Based Medicine*, 21(0), pp.125–126.

Nam, S.K., Choi, S.I., Lee, J.H., Lee, M.K., Kim, a R. & Lee, S.M., 2013. Psychological Factors in College Students' Attitudes Toward Seeking Professional Psychological Help: A Meta-Analysis. *Professional Psychology: Research and Practice*, 44(1), pp.37–45.

Nassir Ghaemi, S., 2009. The rise and fall of the biopsychosocial model. *British Journal of Psychiatry*, 195(1), pp.3–4.

Nolan, P. & Badger, F., 2005. Aspects of the relationship between doctors and depressed patients that enhance satisfaction with primary care. *Journal of Psychiatric and Mental Health Nursing*, 12(2), pp.146–153.

Noyman-Veksler, G., Weinberg, D., Fennig, S., Davidson, L. & Shahar, G., 2013. Perceived stigma exposure in schizophrenia: the key role of self-concept clarity. *Self and Identity*, 12(6), pp.663–674.

O'Connor, A., Jackson, L., Goldsmith, L. & Skirton, H., 2014. Can I get a retweet please? Health research recruitment and the Twittersphere. *Journal of Advanced Nursing*, 70(3), pp.599–609.

Palitsky, D., Mota, N., Afifi, T.O., Downs, A.C. & Sareen, J., 2013. The association between adult attachment style, mental disorders, and suicidality: findings from a population-based study. *The Journal of Nervous and Mental Disease*, 201(7), pp.579–86.

Paulhus, D.P., 1991. *Measurement and control of response bias*. In J.P. Robinson, P.R. Shaver, & L. S. Wrightsman (Eds.), Measures of personality and social psychological attitudes. San Diego: Academic Press.

Paulhus, D. L., & Vazire, S. (2007). The self-report method. In R. W. Robins, R.C. Fraley & R.F. Krueger (Eds.), Handbook of research methods in personality psychology. London: The Guilford Press

Pereg, D. & Mikulincer, M., 2004. Attachment style and the regulation of negative affect: exploring individual differences in mood congruency effects on memory and judgment. *Personality & Social Psychology Bulletin*, 30(1), pp.67–80.

Pescosolido, B.A. & Martin, J.K., 2015. The Stigma Complex. *Annual Review of Sociology*, 41, pp.87–116.

Petticrew, M. & Roberts, H., 2006. *Systematic Reviews in Social Sciences*: A Practical Guide. Oxford: Blackwell Publishing.

Phelan, J.C., Cruz-rojas, R. & Reiff, M., 2002. Genes and Stigma: The Connection Between Perceived Genetic Etiology and Attitudes and Beliefs About Mental Illness. *Psychiatric Rehabilitation Skills*, 6(2), pp.159–185.

Picardi, A., Martinotti, G., Paci, M., Simi, C. & Caroppo, E., 2011. Reliability of self-reported attachment style in patients with severe psychopathology. *Journal of Personality Assessment*, 93(5), pp.491–9.

Pietromonaco, P.R. & Barrett, L.F., 2000. The internal working models concept: What do we really know about the self in relation to others? *Review of General Psychology*, 4(2), pp.155–175.

Pilgrim, D., 2002. The biopsychosocial model in Anglo-American psychiatry: Past, present and future? *Journal of Mental Health*, 11(6), pp.585–594.

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M. & Britten, N., 2006. *Narrative Synthesis in Systematic Reviews: A Product from the ESRC Methods Programme. ESRC Methods Programme*, [Internet]. Available from: http://www.lancaster.ac.uk/shm/research/nssr/research/dissemination/publications.php [Accessed January 24th 2018].

Porter, J. & Washington, R.E., 1993. Minority Identity and Self-Esteem. *Annual Review of Sociology*, 19(1), pp.139–161.

Prior, L., Wood, F., Lewis, G. & Pill, R., 2003. Stigma revisited, disclosure of emotional problems in primary care consultations in Wales. *Social Science and Medicine*, 56(10), pp.2191–2200.

Quinn, D.M., Williams, M.K. & Weisz, B.M., 2015. From Discrimination to Internalized Mental Illness Stigma: The Mediating Roles of Anticipated Discrimination and Anticipated Stigma. *Psychiatric Rehabilitation Journal*, 38(2), pp.103–108.

Radloff, L.S., 1977. The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, pp. 385–401.

Reid, S., Hinchliffe, S. & Waterton, J (ScotCen Social Research), 2014. *Attitudes to Mental Health in Scotland: Scottish Social Attitudes Survey 2013*. Edinburgh: Scottish Government

Read, J. & Harré, N., 2001. The role of biological and genetic causal beliefs in the stigmatisation of "mental patients." *Journal of Mental Health*, 10(2), pp.223–235.

Read, J., Haslam, N., Sayce, L. & Davies, E., 2006. Prejudice and schizophrenia: A review of the "mental illness is an illness like any other" approach. *Acta Psychiatrica Scandinavica*, 114(5), pp.303–318.

Restek-Petrović, B., Bogović, A., Grah, M., Filipčić, I. & Ivezić, E., 2015. Personality characteristics of psychotic patients as possible motivating factors for participating in group psychotherapy. *Psychiatria Danubina*. 27, S364–S370.

Riggs, S.A, Vosvick, M. & Stallings, S., 2007. Attachment style, stigma and psychological distress among HIV+ adults. *Journal of Health Psychology*, 12(6), pp.922–36.

Robotham, D., Satkunanathan, S., Doughty, L. & Wykes, T., 2016. Do We Still Have a Digital Divide in Mental Health? A Five-Year Survey Follow-up. *Journal of Medical Internet Research*, 18(11), p. e309.

Roe, D., Hasson-Ohayon, I., Derhi, O., Yanos, P.T. & Lysaker, P.H., 2010. Talking About Life and Finding Solutions to Different Hardships. *The Journal of Nervous and Mental Disease*, 198(11), pp.807–812.

Rogers, S., 2014. *What fuels a Tweet's engagement?* [Internet]. San Francisco: Twitter, Inc. Available from: https://blog.twitter.com/2014/what-fuels-a-tweets-engagement [Accessed January 7th 2016].

Rosenberg, M., 1979. *Conceiving the self*. New York, NY: Basic Books.

Rosenberg, M., 1989. *Society and the adolescent self-image* (Rev. ed.). Middletown, CT: Wesleyan University Press.

Rübsamen, N., Akmatov, M.K., Castell, S., Karch, A. & Mikolajczyk, R.T., 2017. Comparison of response patterns in different survey designs: a longitudinal panel with mixed-mode and online-only design. *Emerging Themes in Epidemiology*, 14(1), pp.1–11.

Rüsch, N., Lieb, K., Bohus, M. & Corrigan, P.W., 2006. Self-Stigma, Empowerment, and Perceived Legitimacy of Discrimination Among Women with Mental Illness. *Psychiatric Services*, 57(3), pp.399–402.

Rüsch, N., Corrigan, P.W., Wassel, A., Michaels, P., Larson, J.E., Olschewski, M., Wilkniss, S. & Batia, K., 2009. Self-stigma, group identification, perceived legitimacy of discrimination and mental health service use. *British Journal of Psychiatry*, 195(6), pp.551–552.

Schiffrin, H.H., 2014. Positive Psychology and Attachment: Positive Affect as a Mediator of Developmental Outcomes. *Journal of Child and Family Studies*, 23(6), pp.1062–1072.

Schomerus, G., Schwahn, C., Holzinger, A., Corrigan, P.W., Grabe, H.J., Carta, M.G. & Angermeyer, M.C., 2012. Evolution of public attitudes about mental illness: A systematic review and meta-analysis. *Acta Psychiatrica Scandinavica*, 125(6), pp.440–452.

Schwandt, T. A. 2007. *The Sage Dictionary of Qualitative Inquiry*. London: Sage.

Scottish Government, 2016. *Mental Health Funding: Significant new investment to improve services for children and adults.* [Internet]. Available from: http://news.gov.scot/news/mental-health-funding [Accessed February 21st 2017].

Shieh, G., 2009. Detecting interaction effects in moderated multiple regression with continuous variables power and sample size considerations. *Organizational Research Methods*, 12(3), pp.510–528.

Segalovich, J., Doron, A., Behrbalk, P., Kurs, R. & Romem, P., 2013. Internalization of stigma and self-esteem as it affects the capacity for intimacy among patients with schizophrenia. *Archives of Psychiatric Nursing*, 27(5), pp.231–234.

Shepherd, A., Sanders, C., Doyle, M. & Shaw, J., 2015. Using social media for support and feedback by mental health service users: thematic analysis of a twitter conversation. *BMC Psychiatry*, 15(1), p.408.

Sibitz, I., Amering, M., Unger, A., Seyringer, M.E., Bachmann, A., Schrank, B., Benesch, T., Schulze, B. & Woppmann, A., 2011a. The impact of the social network, stigma and

empowerment on the quality of life in patients with schizophrenia. *European Psychiatry*, 26(1), pp.28–33.

Sibitz, I., Unger, A., Woppmann, A., Zidek, T. & Amering, M., 2011b. Stigma resistance in patients with schizophrenia. *Schizophrenia Bulletin*, 37(2), pp.316–323.

Slater, R., 2007. Attachment: Theoretical development and critique. *Educational Psychology in Practice*, 23(3), pp.205–219.

Smith, M., 2013. Anti-stigma campaigns: time to change. *The British Journal of Psychiatry*. Supplement, 55, s49–50.

Spitzer, R.L., Williams, J.B.W., Gibbon, M., First, M.B. 1990. *Structured Clinical Interview for DSM-III-R, Patient Edition/Non-patient Edition,(SCID-P/SCID-NP)*, Washington, D.C.: American Psychiatric Press, Inc., 1990.

Stanton, S.C.E. & Campbell, L., 2014. Psychological and physiological predictors of health in romantic relationships: An attachment perspective. *Journal of Personality*, 82(6), pp.528–538.

Staring, A.B.P., Van der Gaag, M., Van den Berge, M., Duivenvoorden, H.J. & Mulder, C.L., 2009. Stigma moderates the associations of insight with depressed mood, low self-esteem, and low quality of life in patients with schizophrenia spectrum disorders. *Schizophrenia Research*, 115(2–3), pp.363–369.

Steel, Z., Marnane, C., Iranpour, C., Chey, T., Jackson, J.W., Patel, V., Silove, D., 2014. The global prevalence of common mental disorders: A systematic review and meta-analysis 1980-2013. *International Journal of Epidemiology*, 43(2), pp. 476–493.

Stewart, C.J., Lysaker, P.H. & Davis, L.W., 2013. Relationships of Social-Sexual Function with Stigma and Narrative Quality Among Persons with Schizophrenia Spectrum

Disorders Over One Year. *American Journal of Psychiatric Rehabilitation*, 16(3), pp.198–212.

Stuart, H., 2016. Reducing the stigma of mental illness. *Global Mental Health*, 3(e17), pp.1–14.

Stuart, H., Arboleda-Florez, J. & Sartorius, N., 2012. *Paradigms Lost: Fighting Stigma and the Lessons Learned*. New York: Oxford University Press USA.

Sweeney, A., Clement, S., Filson, B. & Kennedy, A., 2016. Trauma-informed mental healthcare in the UK: what is it and how can we further its development? *Mental Health Review Journal*, 21(3), pp.174–192.

Switaj, P., Wciórka, J., Smolarska-Switaj, J. & Grygiel, P., 2009. Extent and predictors of stigma experienced by patients with schizophrenia. *European Psychiatry*, 24(8), pp.513–20.

Switaj, P., Grygiel, P., Anczewska, M. & Wciórka, J., 2014. Loneliness mediates the relationship between internalised stigma and depression among patients with psychotic disorders. *The International Journal of Social Psychiatry*, 60(8), pp.733–740.

Tasca, G.A. & Balfour, L., 2014. Attachment and eating disorders: A review of current research. *International Journal of Eating Disorders*, 47(7), pp.710–717.

Thoits, P.A., 2011. Resisting the Stigma of Mental Illness. *Social Psychology Quarterly*, 74(1), pp.6–28.

Thornicroft, G., Brohan, E., Rose, D., Sartorius, N. & Leese, M., 2009. Global pattern of experienced and anticipated discrimination against people with schizophrenia: a cross-sectional survey. *The Lancet*, 373(9661), pp.408–415.

Thornicroft, G., Mehta, N., Clement, S., Evans-Lacko, S., Doherty, M., Rose, D., Koschorke, M., Shidhaye, R., O'Reilly, C. & Henderson, C., 2016. Evidence for effective interventions

to reduce mental-health-related stigma and discrimination. *The Lancet*, 387(10023), pp.1123–1132.

Time to Change, 2008. *Stigma Shout*. [Internet]. Available from: https://www.time-to-change.org.uk/sites/default/files/Stigma%20Shout.pdf [Accessed January 5th 2018].

TNS BMRB. 2015. *Attitudes to mental illness 2014 research report: Prepared for Time to Change*. [Internet]. Available from: https://www.time-to-change.org.uk/sites/default/files/Attitudes_to_mental_illness_2014_report_final_0.pdf [Accessed January 5th 2018].

Twitter Inc, 2016. *The Twitter Rules* [Internet]. San Francisco: Twitter, Inc. Available from: https://support.twitter.com/articles/18311# [Accessed January 7th 2016].

Tyler, I., 2015. The Sociology of Stigma: *Why research stigma today?* [Internet]. Available from: https://socialabjection.wordpress.com/2015-2018-leverhulme-funded-research-on-stigma/ [Accessed January 14th 2018].

Tyler, I., 2016. *The Sociology of Stigma: A Sociological Review Monograph*. [Internet]. Available from: https://thestigmadoctrine.wordpress.com/2016/02/01/the-sociology-of-stigma-a-sociological-review-monograph/ [Accessed January 14th 2018].

Uchino, B.N., 2009. Understanding the links between social support and physical health. *Perspectives on Psychological Science*, 4(3), pp.236–255.

University of Bristol, 2017. BOS. [Internet]. Available from: https://www.onlinesurveys.ac.uk [Accessed April 2nd 2017].

Van De Mortel, T.F., 2008. Faking it: social desirability response bias in self- report research Faking it: social desirability response bias in self- report research. *Australian Journal of Advanced Nursing*, 25(4), pp.40–48.

van der Noordt, M., IJzelenberg, H., Droomers, M. & Proper, K.I., 2014. Health effects of employment: a systematic review of prospective studies. *Occupational and Environmental Medicine*, 71(10), pp.730–6.

Vigo, D., Thornicroft, G. & Atun, R., 2016. Estimating the true global burden of mental illness. *The Lancet Psychiatry*, 3(2), pp.171–178.

Vogel, D.L., Bitman, R.L., Hammer, J.H. & Wade, N.G., 2013. Is stigma internalized? The longitudinal impact of public stigma on self-stigma. *Journal of Counseling Psychology*. 60, 311–6.

Vogel, D.L. & Wei, M., 2005. Adult Attachment and Help-Seeking Intent: The Mediating Roles of Psychological Distress and Perceived Social Support. *Journal of Counseling Psychology*, 52(3), pp.347–357.

Ward, M.J., Lee, S.S. & Polan, H.J., 2006. Attachment and psychopathology in a community sample. *Attachment & Human Development*, 8(4), pp.327–340.

Warner, R., 2010. Does the scientific evidence support the recovery model? *The Psychiatrist*, 34(1), pp.3–5.

Watson, A.C., Corrigan, P., Larson, J.E. & Sells, M., 2007. Self-stigma in people with mental illness. *Schizophrenia Bulletin*, 33(6), pp.1312–8.

Wells, G.B. & Hansen, N.D., 2003. Lesbian Shame: Its Relationship to Identity Integration and Attachment. *Journal of Homosexuality*, 45(1), pp.93–110.

West, M.L., Yanos, P.T., Smith, S.M., Roe, D. & Lysaker, P.H., 2011. Prevalence of Internalized Stigma among Persons with Severe Mental Illness. *Stigma Research and Action*, 1(1), pp.3–10.

Wong, L., 2007. Summarizing research findings: systematic review and meta-analysis. *Malaysian family physician : the official journal of the Academy of Family Physicians of Malaysia*, 2(1), pp.8–12.

Wong, Y.I., Metzendorf, D. & Min, S-Y., 2006. Neighborhood experiences and community integration: Perspectives from mental health consumers and providers. *Social Work in Mental Health*, 4(3), pp.45–59.

Wood, L., Burke, E., Byrne, R., Pyle, M., Chapman, N. & Morrison, A., 2014. Stigma in psychosis: A thematic synthesis of current qualitative evidence. *Psychosis*, 7(2), pp.152–165.

Wood, L., Byrne, R., & Morrison, A.P., 2017. An Integrative Cognitive Model of Internalized Stigma in Psychosis. *Behavioural and Cognitive Psychotherapy*, 45(6), pp.1–16.

Wood, L., Burke, E., Byrne, R., Enache, G. & Morrison, A.P., 2016a. Semi-structured Interview Measure of Stigma (SIMS) in psychosis: Assessment of psychometric properties. *Schizophrenia Research*, 176(2–3), pp.398–403.

Wood, L., Byrne, R., Varese, F. & Morrison, T., 2016b. Psychosocial interventions for internalised stigma in people with a schizophrenia-spectrum diagnosis: A systematic narrative synthesis and meta-analysis. *Schizophrenia Research*. 176(2-3), pp. 291-303.

World Health Organization, 2014. *Mental health: a state of well-being*. [Internet]. Available from: http://www.who.int/features/factfiles/mental_health/en/ [Accessed January 4th 2017]

Wright, K.B., 2005. Researching internet-based populations: advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services, *Journal of Computer-Mediated Communication*, Volume 10, Issue 3, 1, JCMC1034.

Wright, E., Wright, D., Perry, B. & Foote-Ardah, C., 2007. Stigma and the sexual isolation of people with serious mental illness. *Social Problems*, 54(1), pp.78–98.

Yanos, P.T., Roe, D., & Lysaker, P. H., 2010. The Impact of Illness Identity on Recovery from Severe Mental Illness. *American Journal of Psychiatric Rehabilitation*, 13(2), pp. 73–93.

Zakalik, R.A. & Wei, M., 2006. Adult Attachment, Perceived Discrimination Based on Sexual Orientation, and Depression in Gay Males: Examining the Mediation and Moderation Effects. *Journal of Counseling Psychology*, 53(3), pp.302–313.

Zhao, W., Young, R.E., Breslow, L., Michel, N.M., Flett, G.L. & Goldberg, J.O., 2015. Attachment style, relationship factors, and mental health stigma among adolescents. *Canadian Journal of Behavioural Science / Revue canadienne des sciences du comportement*, 47(4), pp.263–271.

APPENDIX A: LITERATURE REVIEW SUPPLEMENTARY TABLES

Table A1 Data Collection Criteria

Criteria	Description
Identification	Unique identifier
Title	Study title
Location	Where the study was completed
Participants	Sample size and characteristics
Design	The methodological approach employed
Intervention	The specific intervention included in the study (where relevant)
Outcomes	Outcomes and tools used in the study (where relevant)
Aims and results	Aims of the study and main results
Inclusion	Whether to include following abstract review stage
Notes	Initial review notes, observations and comments
Reason for exclusion	Recorded where relevant
Question relevance	Quality assessment at stage 2 where relevant
Internal validity	Quality assessment at stage 2 where relevant
External validity	Quality assessment at stage 2 where relevant
Ethics	Quality assessment at stage 2 where relevant
Overall quality rating	Overall quality rating of stage 2 records
Notes	Stage 2 review notes

Table A2 Summary of results

Reference	Title	Grouping	Participants	Design and relevant measures	Main focus	Relevant themes and findings
Adewuya et al. 2011	Correlates of self-stigma among Community-based with mental illness in Lagos, Nigeria	Social support	Community-based mixed diagnoses *n* = 342	*Cross-sectional* ISMI Bespoke social support scale	Prevalence and correlates of internalised stigma in Nigeria.	Social support (poor) one of four variables independently associated with high internalised stigma (χ^2 = 47.969, p < .001).
Ahmed et al. 2013	A psychometric study of recovery among Certified Peer Specialists	Social support	Community-based mixed diagnoses *n* = 84	*Cross-sectional* ISMI SFS SSQSR	Validation of new recovery measure.	Providing social support may have beneficial effects against internal stigma.
Ben-Zeev et al. 2012	Predictors of Self-Stigma in Schizophrenia: New Insights Using Mobile Technologies	Social support	Community-based schizophrenia diagnosis *n* = 24	*Longitudinal* Four items selected from SSMIS	Monitoring internalised stigma and its consequences over time using mobile technology.	While internalised stigma varied over time social company was not associated with changes.
Bifftu, Dachew & Tiruneh 2014	Stigma Resistance among people with schizophrenia at Amanuel Mental Specialized Hospital Addis Ababa, Ethiopia: a cross-sectional institution based study	Social support	Community-based schizophrenia diagnosis *n* = 411	*Cross-sectional* Subscales of ISMI	Prevalence and correlates of internalised stigma in Ethiopia.	Low stigma resistance was correlated with social withdrawal (AOR = .27, p = .05) and most strongly with rural participants.
Brohan et al.	Self-stigma, empowerment and	Social support	Community-	*Cross-sectional*	Pan-European	Significant association

Reference	Title	Grouping	Participants	Design and relevant measures	Main focus	Relevant themes and findings
2010a	perceived discrimination among people with schizophrenia in 14 European countries: The GAMIAN-Europe study		based schizophrenia or schizoaffective disorder diagnosis *n* = 1,229	ISMI PDD Bespoke items of social contact	survey based study of internalised stigma correlates.	between lower levels of social contact and increased levels of internalised stigma (r = -.35, p = .001).
Brohan et al. 2011	Self-stigma, empowerment and perceived discrimination among people with bipolar disorder or depression in 13 European countries: The GAMIAN–Europe study	Social support	Community-based bi-polar disorder or depression diagnosis *n* = 1,182	*Cross-sectional* ISMI PDD Bespoke items of social contact	Pan-European survey based study of internalised stigma correlates.	Significant association between lower levels of social contact and increased levels of internalised stigma (OR = .69, p < .001).
Cabassa, Andel & Whitley 2013	A Photovoice Exploration of Recovery Dimensions Among People With Serious Mental Illness	Social support	Community-based mixed diagnoses *n* = 16	*Qualitative*	Used 'photovoice' intervention to explore how people envisioned their recovery.	Receiving and giving social support were identified as important in biographical reconstruction, linked reducing internalised stigma.
Cerit et al. 2012	Stigma: A core factor on predicting functionality in bipolar disorder	Social support	Community-based bipolar disorder diagnosis *n = 80*	*Cross-sectional* ISMI MSPSS	Investigation of predictors of functioning.	Internalised stigma negatively correlated with perceived social support (r = .297, p = .07). Social support was predicted by internalised stigma in regression

Reference	Title	Grouping	Participants	Design and relevant measures	Main focus	Relevant themes and findings
						model but not vice versa.
Chronister, Chou & Liao 2013	The role of stigma coping and social support in mediating the effect of societal stigma on internalized stigma, mental health recovery, and quality of life among people with serious mental illness	Social support	Community-based mixed diagnoses *n* = 101	*Cross-sectional* ISEL ISMI PDD	The review of social support as a mediator of the internalization of public stigma.	Lower levels of both emotional and tangible social support linked to higher internalised stigma (r = .26, p = .01; r = .35, p = .05). Both forms found to mediate the effect of societal stigma on internalised stigma.
Kim et al. 2015	Internalized stigma and its psychosocial correlates in Korean patients with serious mental illness	Social support	Inpatient and community-based mixed diagnoses *n* = 160	*Cross-sectional* ISMI NSIS SSS	Assessment of prevalence and correlates of internalised stigma in Korea.	Internalised stigma was positively associated with social conflict (r = .409, p = .01) and negatively associated with social support (r = -.260, p = .01). Social conflict predicted internalised stigma (β = .322, p = .01)
Krajewski, Burazeri & Brand 2013	Self-stigma, perceived discrimination and empowerment among people with a mental illness in six countries: Pan	Social support	Community-based mixed diagnoses *n* = 769	*Cross-sectional* ISMI PDD Bespoke items	Pan-European survey based study of internalised stigma	Self stigma and its correlates may be country and culturally dependent.

Reference	Title	Grouping	Participants	Design and relevant measures	Main focus	Relevant themes and findings
	European stigma study.			of social contact	Correlates across diagnoses.	
Link et al. 1989	A Modified Labeling Theory Approach to Mental Disorders: An Empirical Assessment	Social support	Inpatient and community-based mixed diagnoses *n* = 593	*Cross-sectional* PDD Bespoke social networks and stigma coping strategy scale	Testing of a modified labelling theory.	Social support negatively associated with stigma coping strategy of social withdrawal (r = .481, p < .01).
Livingston & Boyd 2010	Correlates and consequences of internalized stigma for people living with mental illness: A systematic review and meta-analysis	Social support	Inpatient and community-based mixed diagnoses *n* = 24,698	*Systematic review*	Systematic review and meta-analysis of internalised stigma.	A negative relationship between social support and internalised stigma (in seven of 12 relevant studies), supported in meta-analysis (r = -.28, p < .05).
Lucksted et al. 2011	Ending Self-Stigma: Pilot Evaluation of a New Intervention to Reduce Internalized Stigma Among People with Mental Illnesses	Social support	Inpatient and community-based mixed diagnoses *n* = 34	*Cross-sectional* ISMI MSPSS	Evaluated "Ending Self-Stigma" group intervention.	Internalised stigma reduced and perceived social support increased (T = 3.44, p < .01, d = .57; T = 2.74, p < .05, d = .37 respectively).
Lv, Wolf & Wang 2013	Experienced stigma and self-stigma in Chinese patients with schizophrenia	Social support	Inpatient and community-based schizophrenia diagnosis	*Cross-sectional* ISMI MSPSS SSRS	Prevalence and correlates of stigma in China.	Internalised negatively associated with social support (β = -.26, p = .004).

Reference	Title	Grouping	Participants	Design and relevant measures	Main focus	Relevant themes and findings
			n = 95			
Lysaker et al. 2007	Stigma, social function and symptoms in schizophrenia and schizoaffective disorder: Associations across 6 months.	Social support	Community-based schizophrenia or schizoaffective disorder diagnosis *n* = 36	*Longitudinal* ISMI QOLS	An assessments of symptoms, social function and internalised stigma.	High internalised stigma at baseline was associated with poorer interpersonal relations at both baseline (r = -.38, p < .025) and six month follow up (r = -.50, p < .01).
Moriarty et al. 2012	Understanding reduced activity in psychosis: the roles of stigma and illness appraisals	Social support	Community-based schizophrenia diagnosis *n* = 50	*Cross-sectional* ISMI TB	Psychological mechanisms underlying reduced activity.	Higher internalised stigma associated with reduced activity, which included a measure of social contact (r = -.33, p < .02). Internalised stigma helped explain variance in activity.
Roe et al. 2010	Talking about life and finding solutions to different hardships: a qualitative study on the impact of narrative enhancement and cognitive therapy on persons with serious mental illness	Social support	Community-based mixed diagnoses *n* = 18	*Qualitative*	Therapeutic elements of Narrative Enhancement and Cognitive Therapy intervention.	Group dynamics and therapeutic relationships found to be important to intervention.
Sibitz et al. 2011a	The impact of the social network, stigma and empowerment on the quality of life in patients with	Social support	Inpatient and community-based	*Cross-sectional* ISMI PDD	The effect of social network, stigma and	Social network negatively associated with internalised stigma

Reference	Title	Grouping	Participants	Design and relevant measures	Main focus	Relevant themes and findings
	schizophrenia		schizophrenia diagnosis *n* = 157		empowerment on quality of life through depression.	(r = -.35, *p* = .01).The effect of internalised stigma on quality of life was mediated by the impact of stigma on depression.
Campellone, Caponigro & Kring 2014	The power to resist: The relationship between power, stigma, and negative symptoms in schizophrenia	Characteristics and perceptions of relationships	Community-based schizophrenia or schizoaffective disorder diagnosis *n* = 51	*Cross-sectional* ISMI SPS	Examined links between sense of social power in relationships, internalised stigma and stigma resistance.	Sense of social power in relationships was correlated with reduced internalised stigma (*r* = .53, *p* = .01) and increased stigma resistance (*r* = .33, *p* = .01).
Cheang & Davis 2014	Influences of face, stigma, and psychological symptoms on help-seeking attitudes in Macao.	Characteristics and perceptions of relationships	Students *n* = 391	*Cross-sectional* LOF PSOSH SSOSH	Attitudes toward help seeking in students.	Both internal and public stigma were associated with loss of *face* in social roles (*r* = .14, *p* < .01; *r* = .11, *p* < .05 respectively).
Margetić et al. 2010	Relations of internalized stigma with temperament and character in patients with schizophrenia	Characteristics and perceptions of relationships	Community-based schizophrenia diagnosis *n* = 120	*Cross-sectional* ISMI TCI	Associations between internalised stigma, temperament and character dimensions.	Personality domains of harm avoidance (*r* = -.441, *p* < .01). and self-directedness (*r* = -.422, *p* < .01) were associated with internalised stigma but not cooperativeness.

Reference	Title	Grouping	Participants	Design and relevant measures	Main focus	Relevant themes and findings
Switaj et al. 2014	Loneliness mediates the relationship between internalised stigma and depression among patients with psychotic disorders	Characteristics and perceptions of relationships	Inpatient and community-based schizophrenia or psychosis diagnosis *n* = 110	*Cross-sectional* DJGLS ISMI	Testing the contribution of internalised stigma to depressive symptoms via loneliness.	Loneliness was positively correlated with internalised stigma (r = .44, p < .01) and fully mediated the effect of internalised stigma on depression (B = 1.01, p < .05).
Wong, Metzendorf & Min 2006	Neighborhood Experiences and Community Integration: Perspectives from Mental Health Consumers and Providers	Characteristics and perceptions of relationships	Community-based mixed diagnoses *n* = 29	*Qualitative*	Social interaction and community integration for people in residential projects.	Identified need for residents to address internalised stigma to community integration.
Segalovich et al. 2013	Internalization of stigma and self-esteem as it affects the capacity for intimacy among patients with schizophrenia	Close and intimate relationships	Inpatient and community-based schizophrenia diagnosis *n* = 60	*Cross-sectional* ISMI IAS-R	Internalised stigma, self-esteem, and the ability to form intimate attachments.	Negative association between internalised stigma and capacity for intimacy for people in community (r = −.59, p = .001) but not inpatient settings.
Stewart, Lysaker & Davis 2013	Relationships of Social-Sexual Function with Stigma and Narrative Quality Among Persons with Schizophrenia Spectrum Disorders Over One Year	Close and intimate relationships	Community-based schizophrenia or schizoaffective disorder	*Cross-sectional* ISMI QOLS	Intimate relationships, narrative quality and internalised stigma.	Social withdrawal negatively associated with socio-sexual function at baseline and five month follow up (r =

Reference	Title	Grouping	Participants	Design and relevant measures	Main focus	Relevant themes and findings
			diagnosis *n* = 103			−.34, $p < .01$; $r = -.26$, $p < .05$ respectively).
Wright et al. 2007	Stigma and the Sexual Isolation of People with Serious Mental Illness	Close and intimate relationships	Inpatient and community-based mixed diagnoses *n* = 410	*Qualitative*	Sexual activity amongst people with significant mental health issues.	Internalised stigma identified as block by some in forming sexual relationships.
Corrigan, Sokol & Rüsch 2013	The Impact of Self-Stigma and Mutual Help Programs on the Quality of Life of People with Serious Mental Illnesses	Group identification and participation	Community-based mixed diagnoses *n* = 85	*Cross-sectional* BLM JET ISMI	Mutual help programmes, quality of life and internalised stigma.	Group identification was significantly associated with current mutual support group participation ($r = .43$, $p < .005$ but not internalised stigma.
Crabtree et al. 2010	Mental Health Support Groups, Stigma, and Self-Esteem: Positive and Negative Implications of Group Identification	Group identification and participation	Community-based mixed diagnoses *n* = 73	*Cross-sectional* Bespoke items of group identification MSPSS Stigma unspecified	Group identification, stigma and self esteem in drop in settings.	Relationship between group identification and self esteem was mediated by stereotype rejection, stigma resistance and external social support.
Lawlor & Kirakowski 2013	Online support groups for mental health: A space for challenging self-stigma or a means of social avoidance?	Group identification and participation	Community-based mixed diagnoses *n* = 99	*Cross-sectional* PDD WAI	Influence of online social support on recovery and internalised stigma.	Participation in online social support did not influence internalised stigma.

Reference	Title	Grouping	Participants	Design and relevant measures	Main focus	Relevant themes and findings
Rüsch et al. 2006	Self-stigma, empowerment, and perceived legitimacy of discrimination among women with mental illness	Group identification and participation	Community-based borderline personality disorder and social phobia diagnoses *n* = 90	*Cross-sectional* JET PSQ	Investigation of variable responses to stigma.	Failed to find relationship between group identification and self-esteem or empowerment (proxies for internal stigma).
Rüsch et al. 2009	Self-stigma, group identification and perceived legitimacy of discrimination as predictors of mental health service use: a longitudinal study	Group identification and participation	Community-based mixed diagnoses *n* = 85	*Longitudinal* JET PDD SSMIS	Stigma as a predictor of service use over time.	High internalised stigma predicted hospital admission (β = -.43, *p* = .08). Strong in-group identification associated with mutual support group use (β = .90, *p* = .001).
Watson et al. 2007	Self-stigma in people with mental illness	Group identification and participation	Community-based mixed diagnoses *n* = 71	*Cross-sectional* JET SSMIS	Relationships between group identity, self esteem, self efficacy and internalised stigma.	Negative association between group identification and stereotype agreement and stereotype self-concurrence (*r* = -.352, *p* < .001; *r* = -.241, *p* < .05 respectively) and a positive association with self efficacy (*r* = 0.252, *p* < 0.05).

Reference	Title	Grouping	Participants	Design and relevant measures	Main focus	Relevant themes and findings
Bjorkman, Svensson & Lundberg 2007	Experiences of stigma among people with severe mental illness. Reliability, acceptability and construct validity of the Swedish versions of two stigma scales measuring devaluation/discrimination and rejection experiences	Social factors in service use	Community-based mixed diagnoses *n* = 40	*Cross-sectional* PDD HAS	Validation of Swedish versions of existing scales.	No significant correlation between therapeutic alliance and perceived devaluation and discrimination.
Chen, Wu & Huang 2014	Influences of Attribution and Stigma on Working Relationships with Providers Practicing Western Psychiatry in the Taiwanese Context	Social factors in service use	Community-based schizophrenia diagnosis *n* = 212	*Cross-sectional* WAI-S PDD ISMI	Influences of causal attributions of schizophrenia and internalised mental illness stigma on working alliance.	Working alliance was positively associated with the discrimination domain of an internalised stigma measure (β = -.30, p < .05) but not the other four domains.
Cheng, Kwan & Sevig 2013	Racial and Ethnic Minority College Students' Stigma Associated With Seeking Psychological Help: Examining Psychocultural Correlates	Social factors in service use	Students *n* = 609	*Cross-sectional* MEIM-OGO PSOSH	Different forms of stigma and help seeking amongst minority ethnic college students.	Higher other group orientation predicted lower internalised stigma in relation to help seeking across three groups (r = -.19, p < .5; r = -.17, p < .5; r = -.14, p < .5)
Fung, Tsang & Corrigan	Self-Stigma of People with Schizophrenia as Predictor of	Social factors in service use	Inpatient and community-	*Cross-sectional* SES	Participation and attendance of	Self-concurrence domain of the internalised

Reference	Title	Grouping	Participants	Design and relevant measures	Main focus	Relevant themes and findings
2008	Their Adherence to Psychosocial Treatment		based schizophrenia diagnosis *n* = 86	SSMIS	psychosocial rehabilitation programmes in Hong Kong.	stigma measure explained 61% of variance in attendance (β = -.424, p < .001).
Kendra, Mhor & Pollard 2014	The stigma of having psychological problems: Relations with engagement, working alliance, and depression in psychotherapy	Social factors in service use	Community-based mixed diagnoses *n* = 156	*Longitudinal* Bespoke stigma scale WAI-S	Exploring links between stigma and therapeutic process over time in psychotherapy.	Initial level of internalised stigma inversely related to therapeutic alliance (r = -.35, p < .05). As stigma increased individually therapeutic engagement improved (z = 2.08, p *<.01)*.
Knox et al. 2014	Mental health consumer and caregiver perceptions of stigma in Australian community pharmacies	Social factors in service use	Community-based mixed diagnoses and carers *n* = 74	*Qualitative*	Experiences in Australian community pharmacies.	Internalised stigma seen as impediment to helpful engagement with pharmacy staff and treatment
Kondrat 2012	Do Treatment Processes Matter More than Stigma? The Relative Impacts of Working Alliance, Provider Effects, and Self-Stigma on Consumers' Perceived Quality of Life	Social factors in service use	Community-based mixed diagnoses *n* = 160	*Cross-sectional* PDD WAI	Study of community based case management.	Case managers moderated relationship between internalised stigma and quality of life.
Kvrgic at al. 2013	Therapeutic alliance in schizophrenia: the role of	Social factors in service use	Community-based	*Cross-sectional* PAM	Role of internalised stigma	Increased internalised stigma was found to

Reference	Title	Grouping	Participants	Design and relevant measures	Main focus	Relevant themes and findings
	recovery orientation, self-stigma, and insight.		schizophrenia or schizoaffective disorder diagnosis *n* = 156	SSMIS STAR	in therapeutic alliance.	undermine therapeutic alliance. Proposed confounding effect of avoidant attachment not supported.
Nam et al. 2013	Psychological Factors in College Students' Attitudes Toward Seeking Professional Psychological Help: A Meta-Analysis	Social factors in service use	Students *n* = 7396	*Systematic review*	Systematic review and meta-analysis of student help seeking.	Internalised stigma had the largest effect size of all included variables on help seeking (r = -.63, p < .001). Social support also associated (r = .13, p < .001).
Nolan & Badger 2005	Aspects of the relationship between doctors and depressed patients that enhance satisfaction with primary care	Social factors in service use	Community-based depression diagnosis *n* = 60	*Qualitative*	Therapeutic relationships in initial GP consultations.	Some who present in primary care with depression internalize stigma.

Table A3 Quality ratings

Reference	Title	Question relevance	Internal validity	External validity	Ethical	Overall rating
Adewuya et al. 2011	Correlates of self-stigma among Community-based with mental illness in Lagos, Nigeria	Med	Med	Med	Med	Med
Ahmed et al. 2013	A psychometric study of recovery among Certified Peer Specialists	High	Low	High	Med	Med
Ben-Zeev et al. 2012	Predictors of Self-Stigma in Schizophrenia: New Insights Using Mobile Technologies	High	Low	High	High	High
Bifftu, Dachew & Tiruneh 2014	Stigma Resistance among people with schizophrenia at Amanuel Mental Specialized Hospital Addis Ababa, Ethiopia: a cross-sectional institution based study	Med	Low	Low	Med	Med
Brohan et al. 2010a	Self-stigma, empowerment and perceived discrimination among people with schizophrenia in 14 European countries: The GAMIAN-Europe study	Med	Low	Med	Med	Med
Brohan et al. 2011	Self-stigma, empowerment and perceived discrimination among people with bipolar disorder or depression in 13 European countries: The GAMIAN–Europe study	Med	Low	Med	Med	Med
Cabassa, Andel & Whitley 2013	A Photovoice Exploration of Recovery Dimensions Among People With Serious Mental Illness	Low	High	Low	High	Med
Cerit et al. 2012	Stigma: A core factor on predicting functionality in bipolar disorder	Med	Med	Med	High	Med
Chronister, Chou & Liao 2013	The role of stigma coping and social support in mediating the effect of societal stigma on internalized stigma, mental health recovery, and quality of life among people with serious mental illness	High	Low	Low	Med	Med

Reference	Title	Question relevance	Internal validity	External validity	Ethical	Overall rating
Kim et al. 2015	Internalized stigma and its psychosocial correlates in Korean patients with serious mental illness	High	Med	Low	High	Med
Krajewski, Burazeri & Brand 2013	Self-stigma, perceived discrimination and empowerment among people with a mental illness in six countries: Pan European stigma study.	Med	Med	Med	Med	Med
Link et al. 1989	A Modified Labeling Theory Approach to Mental Disorders: An Empirical Assessment	High	Med	Med	Med	Med
Livingston & Boyd 2010	Correlates and consequences of internalized stigma for people living with mental illness: A systematic review and meta-analysis	High	High	High	Med	High
Lucksted et al. 2011	Ending Self-Stigma: Pilot Evaluation of a New Intervention to Reduce Internalized Stigma Among People with Mental Illnesses	Med	Med	Low	Med	Med
Lv, Wolf & Wang 2013	Experienced stigma and self-stigma in Chinese patients with schizophrenia	Med	Low	Low	Med	Med
Lysaker et al. 2007	Stigma, social function and symptoms in schizophrenia and schizoaffective disorder: Associations across 6 months.	High	Med	Low	Med	Med
Moriarty et al. 2012	Understanding reduced activity in psychosis: the roles of stigma and illness appraisals	Med	Med	Med	Med	Med
Roe et al. 2010	Talking about life and finding solutions to different hardships: a qualitative study on the impact of narrative enhancement and cognitive therapy on persons with serious mental illness	Med	Med	Med	Low	Med
Sibitz et al. 2011a	The impact of the social network, stigma and empowerment on the quality of life in patients with schizophrenia	Med	Med	Med	Med	Med
Campellone, Caponigro & Kring 2014	The power to resist: The relationship between power, stigma, and negative symptoms in schizophrenia	High	Low	Med	High	Med

Reference	Title	Question relevance	Internal validity	External validity	Ethical	Overall rating
Cheang & Davis 2014	Influences of face, stigma, and psychological symptoms on help-seeking attitudes in Macao.	Med	Med	Med	Low	Med
Margetić et al. 2010	Relations of internalized stigma with temperament and character in patients with schizophrenia	Med	Med	Med	Med	Med
Switaj et al. 2014	Loneliness mediates the relationship between internalised stigma and depression among patients with psychotic disorders	High	Med	Med	Med	Med
Wong, Metzendorf & Min 2006	Neighborhood Experiences and Community Integration: Perspectives from Mental Health Consumers and Providers	Low	Med	Med	Med	Med
Segalovich et al. 2013	Internalization of stigma and self-esteem as it affects the capacity for intimacy among patients with schizophrenia	High	Med	Med	Med	Med
Stewart, Lysaker & Davis 2013	Relationships of Social-Sexual Function with Stigma and Narrative Quality Among Persons with Schizophrenia Spectrum Disorders Over One Year	Med	Med	Med	Med	Med
Wright et al. 2007	Stigma and the Sexual Isolation of People with Serious Mental Illness	Low	High	Med	Med	Med
Corrigan, Sokol & Rüsch 2013	The Impact of Self-Stigma and Mutual Help Programs on the Quality of Life of People with Serious Mental Illnesses	Med	Med	Med	Med	Med
Crabtree et al. 2010	Mental Health Support Groups, Stigma, and Self-Esteem: Positive and Negative Implications of Group Identification	Low	Med	Med	Med	Low
Lawlor & Kirakowski 2013	Online support groups for mental health: A space for challenging self-stigma or a means of social avoidance?	Low	Low	Med	Med	Med
Rüsch et al. 2006	Self-stigma, empowerment, and perceived legitimacy of discrimination among women with mental illness	High	Low	Med	Med	Med

Reference	Title	Question relevance	Internal validity	External validity	Ethical	Overall rating
Rüsch et al. 2009	Self-stigma, group identification and perceived legitimacy of discrimination as predictors of mental health service use: a longitudinal study	Med	Low	Med	Med	Med
Watson et al. 2007	Self-stigma in people with mental illness	High	Med	Med	Low	Med
Bjorkman, Svensson & Lundberg 2007	Experiences of stigma among people with severe mental illness. Reliability, acceptability and construct validity of the Swedish versions of two stigma scales measuring devaluation/discrimination and rejection experiences	Low	Med	Low	High	Med
Chen, Wu & Huang 2014	Influences of Attribution and Stigma on Working Relationships with Providers Practicing Western Psychiatry in the Taiwanese Context	Med	Med	Med	High	Med
Cheng, Kwan & Sevig 2013	Racial and Ethnic Minority College Students' Stigma Associated With Seeking Psychological Help: Examining Psychocultural Correlates	Med	Med	Med	High	Med
Fung, Tsang & Corrigan 2008	Self-Stigma of People with Schizophrenia as Predictor of Their Adherence to Psychosocial Treatment	Low	Med	Med	Low	Med
Kendra, Mhor & Pollard 2014	The stigma of having psychological problems: Relations with engagement, working alliance, and depression in psychotherapy	Med	Med	Low	Low	Med
Knox et al. 2014	Mental health consumer and caregiver perceptions of stigma in Australian community pharmacies	Low	Med	Low	High	Med
Kondrat 2012	Do Treatment Processes Matter More than Stigma? The Relative Impacts of Working Alliance, Provider Effects, and Self-Stigma on Consumers' Perceived Quality of Life	High	Med	Low	Med	Med
Kvrgic at al. 2013	Therapeutic alliance in schizophrenia: the role of recovery orientation, self-stigma, and insight.	High	Med	Med	Low	Med

Reference	Title	Question relevance	Internal validity	External validity	Ethical	Overall rating
Nam et al. 2013	Psychological Factors in College Students' Attitudes Toward Seeking Professional Psychological Help: A Meta-Analysis	Med	Med	High	Med	Med
Nolan & Badger 2005	Aspects of the relationship between doctors and depressed patients that enhance satisfaction with primary care	Low	Med	Med	Low	Med

APPENDIX B: INCLUDED MEASURES

Internalized Stigma of Mental Illness Scale

ISMI-B: Boyd, Otilingam & DeForge, 2014, 9-item Version

	Strongly disagree	Disagree	Agree	Strongly agree
Mentally ill people tend to be violent.	❑	❑	❑	❑
People with mental illness make important contributions to society.	❑	❑	❑	❑
I don't socialize as much as I used to because my mental illness might make me look or behave "weird."	❑	❑	❑	❑
Having a mental illness has spoiled my life.	❑	❑	❑	❑
People without mental illness could not possibly understand me.	❑	❑	❑	❑
People ignore me or take me less seriously just because I have a mental illness.	❑	❑	❑	❑
I can't contribute anything to society because I have a mental illness.	❑	❑	❑	❑
I can have a good, fulfilling life, despite my mental illness.	❑	❑	❑	❑
Others think that I can't achieve much in life because I have a mental illness.	❑	❑	❑	❑

Stig-9

Gierk et al. Manuscript submitted

	Strongly disagree	Disagree	Agree	Strongly agree
I think most people take the opinion of someone who has been treated for a mental illness less seriously.	❑	❑	❑	❑
I think most people consider someone who has been treated for a mental illness to be dangerous.	❑	❑	❑	❑
I think most people hesitate to do business with someone who has been treated for a mental illness.	❑	❑	❑	❑
I think most people think badly of someone who has been treated for a mental illness.	❑	❑	❑	❑
I think most people consider mental illness to be a sign of personal weakness.	❑	❑	❑	❑
I think most people hesitate to entrust their child with someone who has been treated for a mental illness.	❑	❑	❑	❑
I think most people do not even take a look at an application from someone who has been treated for a mental illness.	❑	❑	❑	❑
I think most people do not enter into a relationship with someone who has been treated for a mental illness.	❑	❑	❑	❑
I think most people feel uneasy when someone who has been treated for a mental illness moves into the neighbourhood.	❑	❑	❑	❑

Psychosis Attachment Measure

PAM: Berry et al. 2006

	Not at all	A little	Quite a bit	Very much
I prefer not to let other people know my 'true' thoughts and feelings.	❑	❑	❑	❑
I find it easy to depend on other people for support with problems or difficult situations.	❑	❑	❑	❑
I tend to get upset, anxious or angry if other people are not there when I need them.	❑	❑	❑	❑
I usually discuss my problems and concerns with other people.	❑	❑	❑	❑
I worry that key people in my life won't be around in the future.	❑	❑	❑	❑
I ask other people to reassure me that they care about me.	❑	❑	❑	❑
If other people disapprove of something I do, I get very upset.	❑	❑	❑	❑
I find it difficult to accept help from other people when I have problems or difficulties.	❑	❑	❑	❑
It helps to turn to other people when I'm stressed.	❑	❑	❑	❑
I worry that if other people get to know me better, they won't like me.	❑	❑	❑	❑
When I'm feeling stressed, I prefer being on my own to being in the company of other people.	❑	❑	❑	❑
I worry a lot about my relationships with other people.	❑	❑	❑	❑
I try to cope with stressful situations on my own.	❑	❑	❑	❑
I worry that if I displease other people, they won't want to know me anymore.	❑	❑	❑	❑
I worry about having to cope with problems and difficult situations on my own.	❑	❑	❑	❑
I feel uncomfortable when other people want to get to know me better.	❑	❑	❑	❑

The Rosenberg Self-esteem Scale

RSES: Rosenberg, 1979, 1989

	Strongly disagree	Disagree	Agree	Strongly agree
On the whole, I am satisfied with myself.	❑	❑	❑	❑
At times, I think I am no good at all.	❑	❑	❑	❑
I feel that I have a number of good qualities.	❑	❑	❑	❑
I am able to do things as well as most other people.	❑	❑	❑	❑
I feel I do not have much to be proud of.	❑	❑	❑	❑
I certainly feel useless at times.	❑	❑	❑	❑
I feel that I'm a person of worth, at least on an equal plane with others.	❑	❑	❑	❑
I wish I could have more respect for myself.	❑	❑	❑	❑
All in all, I am inclined to feel that I am a failure.	❑	❑	❑	❑
I take a positive attitude toward myself.	❑	❑	❑	❑

Internal State Scale

ISS: Bauer et al. 1991

	0	1	2	3	4	5	6	7	8	9	10
	Not at all										Very much so
Today I feel a capable person	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I actually feel great inside	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I feel impulsive	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I feel depressed	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today my thoughts are going fast	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today it seems like nothing will ever work out for me	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I feel overactive	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I feel “sped up” inside	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I feel restless	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I feel energised	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑

Work and Social Adjustment Scale

WSAS: Marks 1986

Look at each statement and determine on the scale how much your mental health impairs your ability to carry out the activity.

	0 Not at all	1	2 Slightly	3	4 Definitely	5	6 Markedly	7 Very severely
My ability to work is impaired.	❑	❑	❑	❑	❑	❑	❑	❑
My home management (cleaning, tidying, shopping, cooking, looking after home or children, paying bills) is impaired.	❑	❑	❑	❑	❑	❑	❑	❑
My social leisure activities (with other people e.g. parties, bars, clubs, outings, visits, dating, home entertaining) are impaired.	❑	❑	❑	❑	❑	❑	❑	❑
My private leisure activities (done alone, such as reading, gardening, collecting, sewing, walking alone) are impaired.	❑	❑	❑	❑	❑	❑	❑	❑
My ability to form and maintain close relationships with others, including those I live with, is impaired.	❑	❑	❑	❑	❑	❑	❑	❑

APPENDIX C: SUPPLEMENTARY RESULTS TABLES

Table C1 Scores for measures of main variables by sociodemographic and psychiatric grouping

Variable	*M*	*SD*	Min	Max
ISMI-B (Internalised stigma)				
Gender				
Male	2.22	0.55	1.33	3.11
Female	2.19	0.48	1.00	3.33
Transgender	2.22	0.44	1.78	2.67
Age				
35 and under	2.27	0.45	1.33	3.22
36 to 49	2.16	0.50	1.00	3.11
50 and over	2.15	0.52	1.11	3.33
Employment status				
Employed	2.10	0.48	1.11	3.22
Not employed	2.30	0.49	1.00	3.33
Years since diagnosis				
Less than five years	2.16	0.46	1.33	3.11
Five to ten years	2.31	0.44	1.44	3.11
More than ten years	2.17	0.50	1.00	3.33
Frequency of contact with a psychiatrist				
Frequent	2.24	0.47	1.00	3.11
Infrequent	2.25	0.46	1.33	3.22
No contact	2.01	0.53	1.11	2.89
Stig-9 (Perceived public stigma)				
Gender				
Male	17.57	4.92	2.00	24.00
Female	17.27	5.41	0.00	27.00
Transgender	20.00	5.29	16.00	26.00
Age				
35 and under	16.97	5.35	2.00	26.00
36 to 49	17.32	5.79	0.00	27.00
50 and over	17.95	4.76	4.00	27.00
Employment status				
Employed	17.18	5.72	0.00	27.00
Not employed	17.61	4.87	4.00	27.00
Years since diagnosis				
Less than five years	16.01	5.05	2.00	25.00
Five to ten years	19.03	4.66	6.00	26.00

Variable	*M*	*SD*	Min	Max
More than ten years	17.22	5.58	0.00	27.00
Frequency of contact with a psychiatrist				
Frequent	17.97	4.53	7.00	27.00
Infrequent	17.77	5.41	4.00	27.00
No contact	16.55	5.96	0.00	25.00
PAM Anxious attachment				
Gender				
Male	1.62	0.83	0.13	3.00
Female	1.74	0.73	0.00	3.00
Transgender	1.88	1.02	0.75	2.75
Age				
35 and under	1.81	0.72	0.63	2.88
36 to 49	1.74	0.77	0.13	3.00
50 and over	1.60	0.76	0.00	2.75
Employment status				
Employed	1.73	0.72	0.00	3.00
Not employed	1.71	0.78	0.13	3.00
Years since diagnosis				
Less than five years	1.56	0.76	0.00	2.50
Five to ten years	1.85	0.76	0.63	3.00
More than ten years	1.74	0.73	0.13	3.00
Frequency of contact with a psychiatrist				
Frequent	1.83	0.74	0.63	3.00
Infrequent	1.66	0.65	0.50	2.75
No contact	1.70	0.87	.000	2.88
PAM Avoidant attachment				
Gender				
Male	1.87	0.62	0.38	2.63
Female	1.97	0.62	0.63	3.00
Transgender	1.88	0.75	1.13	2.63
Age				
35 and under	1.97	0.67	0.38	3.00
36 to 49	1.99	0.61	0.88	3.00
50 and over	1.90	0.58	0.63	2.88
Employment status				
Employed	1.98	0.61	0.50	3.00
Not employed	1.92	0.63	0.38	3.00
Years since diagnosis				
Less than five years	1.80	0.66	0.50	3.00
Five to ten years	2.16	0.64	0.38	3.00
More than ten years	1.93	0.58	0.63	3.00

Variable	*M*	*SD*	Min	Max
Frequency of contact with a psychiatrist				
Frequent	1.95	0.60	0.63	3.00
Infrequent	2.01	0.58	0.63	3.00
No contact	1.92	0.71	0.38	3.00
RSES (Self-esteem)				
Gender				
Male	12.76	6.95	1.00	28.00
Female	11.69	6.06	2.00	28.00
Transgender	10.67	3.79	8.00	15.00
Age				
35 and under	10.56	5.36	2.00	24.00
36 to 49	11.55	6.02	1.00	26.00
50 and over	13.63	6.83	2.00	28.00
Employment status				
Employed	12.21	5.89	1.00	28.00
Not employed	11.48	6.44	2.00	28.00
Years since diagnosis				
Less than five years	12.96	5.75	1.00	28.00
Five to ten years	10.64	6.06	4.00	28.00
More than ten years	11.92	6.42	2.00	26.00
Frequency of contact with a psychiatrist				
Frequent	11.07	5.33	3.00	28.00
Infrequent	10.87	5.39	1.00	25.00
No contact	13.79	7.39	5.00	28.00
ISS Activation				
Gender				
Male	157.14	114.59	0.00	360.00
Female	131.63	122.68	0.00	450.00
Transgender	163.33	35.12	130.00	200.00
Age				
35 and under	134.88	129.25	0.00	450.00
36 to 49	139.27	123.44	0.00	440.00
50 and over	136.32	107.41	0.00	400.00
Employment status				
Employed	137.90	115.29	0.00	440.00
Not employed	135.67	125.38	0.00	450.00
Years since diagnosis				
Less than five years	144.78	112.45	0.00	370.00
Five to ten years	160.40	137.98	0.00	410.00
More than ten years	124.93	117.58	0.00	450.00
Frequency of contact with a psychiatrist				

Variable	*M*	*SD*	Min	Max
Frequent	161.74	128.28	0.00	450.00
Infrequent	139.23	114.00	0.00	440.00
No contact	103.33	104.24	0.00	370.00
ISS Wellbeing				
Gender				
Male	137.62	78.03	20.00	300.00
Female	106.94	67.85	0.00	300.00
Transgender	93.33	66.58	50.00	170.00
Age				
35 and under	94.65	57.87	0.00	230.00
36 to 49	118.29	73.75	0.00	300.00
50 and over	124.47	76.36	10.00	300.00
Employment status				
Employed	122.10	68.64	0.00	300.00
Not employed	101.33	70.58	0.00	300.00
Years since diagnosis				
Less than five years	118.26	62.79	20.00	260.00
Five to ten years	95.20	58.75	20.00	250.00
More than ten years	116.62	74.47	0.00	300.00
Frequency of contact with a psychiatrist				
Frequent	110.22	65.37	0.00	250.00
Infrequent	102.31	56.31	0.00	240.00
No contact	127.50	96.52	20.00	300.00
ISS Depression				
Gender				
Male	71.90	55.10	0.00	170.00
Female	82.43	57.78	0.00	200.00
Transgender	90.00	40.00	50.00	130.00
Age				
35 and under	79.50	52.65	0.00	200.00
36 to 49	82.68	61.81	0.00	200.00
50 and over	80.26	57.07	0.00	200.00
Employment status				
Employed	73.85	50.23	0.00	200.00
Not employed	88.00	62.43	0.00	200.00
Years since diagnosis				
Less than five years	69.57	45.48	0.00	160.00
Five to ten years	96.80	56.10	0.00	200.00
More than ten years	78.01	58.52	0.00	200.00
Frequency of contact with a psychiatrist				
Frequent	79.97	55.14	0.00	200.00

Variable	*M*	*SD*	Min	Max
Infrequent	87.18	58.76	0.00	200.00
No contact	73.33	58.58	0.00	170.00
WSAS (work and social adjustment)				
Gender				
Male	22.91	8.41	0.00	34.00
Female	22.80	9.83	0.00	40.00
Transgender	30.67	4.93	25.00	34.00
Age				
35 and under	24.02	8.04	5.00	39.00
36 to 49	23.41	10.78	0.00	40.00
50 and over	21.43	9.75	0.00	38.00
Employment status				
Employed	21.03	8.71	0.00	38.00
Not employed	25.05	10.01	0.00	40.00
Years since diagnosis				
Less than five years	19.74	7.76	5.00	38.00
Five to ten years	25.56	8.39	10.00	40.00
More than ten years	22.91	10.18	0.00	39.00
Frequency of contact with a psychiatrist				
Frequent	24.37	8.13	1.00	40.00
Infrequent	24.26	8.06	8.00	40.00
No contact	19.83	11.97	0.00	39.00

APPENDIX D: ONLINE SURVEY

The survey used in the study is presented here in its entirety, as it appeared online.

Page 1: Hello and welcome

Internalized stigma in mental health: an investigation of the role of attachment style

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My name is Simon Bradstreet and I am conducting this research as a student in the PhD Mental Health programme at Lancaster University. Thank you for your interest in this study.

The purpose of this research

The main purpose of this study is to investigate whether there is any relationship between internalized stigma and adult attachment style. Internalized stigma is the process where some people with experience of mental health issues internalize negative attitudes found in society about mental health. Evidence suggests this can be disabling and harmful. Attachment theory suggests that we all develop different styles of relating to others as a result of early childhood experiences. Very little is known about the relationship between these two concepts and a better understanding could help improve efforts to challenge stigma.

What is involved?

If you decide you would like to take part you will firstly be asked to answer a few questions about yourself. You will then be asked to respond to five short sets of statements using simple rating scales. These statements and scales come from recognised research tools which have been shown to be effective in other studies. They are designed to measure different personal characteristics. These include your views on different types of stigma, how you relate to yourself and to others and how you feel about yourself.

It should take around 20 to 25 minutes to complete the survey which includes 64 questions.

Am I eligible?

There are certain requirements to participate in this study. These include significant and recent experience of mental health issues. Please confirm that you meet each criteria below. More information is available on the criteria below if needed. *Required*

- ❑ I currently live in the United Kingdom (see more info above)
- ❑ I am 18 years of age or over
- ❑ I have significant experience of mental health issues. Significant experience of mental health issues is defined for this research as having received secondary mental health services in the last two years (see more info above)

Clickable more info box

Criteria 1: Currently live in the UK

This relates to residence and does not exclude people living in the UK but who are not UK citizens.

Criteria 3: I have significant experience of mental health issues

This study is seeking the view of people who have had significant mental health issues. This might be related to experiencing extreme moods or having unusual experiences, for example. To be included in this study you must also have received secondary mental health services **in the last two years**.

Secondary mental health services are specialist health services beyond those provided in Primary Care settings by your GP. They include:

Seeing a Psychiatrist or a Mental Health Nurse (also known as a Community Psychiatric Nurse).

Receiving services from a Community Mental Health Team, Crisis Team or a Home Treatment Team.

Receiving hospital based services for your mental health, whether as an inpatient or in a day hospital.

If you meet the inclusion criteria you will next be provided with a little more information. This is shared to ensure that you are fully informed about this research. This includes how any information you provide will be handled.

If you do not meet any of these inclusion criteria then thank you very much for your interest in this study.

Page 2: Important background information

Please read the following information before confirming you are happy to proceed to the questions

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Do I have to take part?

No. It's completely up to you to decide whether or not you take part so participation is entirely voluntary. You are also free to stop at any point in the survey. If, however, you complete the survey and then decide that you want to withdraw your responses it may not always be possible. This relates to the design of the study but every effort would be made to satisfy your request.

What about confidentiality and security?

The information you provide is confidential in that no individual information will be reported in the findings of the study. Anonymity is also guaranteed unless you choose to share your email address (see benefits below). If you do share your email address it will be stored separately from your question responses so that you can't be identified.

Information you provide will only be used for the purposes of this study. It will be stored securely in encrypted files on a password protected computer, which only the researcher and his supervisors will be able to access. All information collected will be destroyed after ten years.

What will happen to the results?

The results will be summarised and reported in a thesis. Findings will also be shared with organisations working to end stigma and promote recovery. A journal article will also be developed for publication in an academic journal and findings may be presented at conferences.

Are there any risks for me?

Some of the questions in the study ask you to reflect on areas which you might find distressing. For example, your experiences of stigma or your relationships with other people. If you do experience any distress as a result of participating in the study, either during or after completing the survey, you are encouraged to seek support. Contact details for support organisations and for the researcher can be found in the survey contact details page. You can access this page from a link at the foot of every page.

What's in it for me?

You may not directly benefit from taking part in this research. At the end of the survey you will have the option to download and print your survey responses, which you may find of interest. You will also have the option to receive two

email updates on the study and a summary report of the findings. It is also hoped the study findings will inform future efforts to reduce internal stigma and promote recovery.

Who has reviewed the project?

This study has been reviewed by the Faculty of Health and Medicine Research Ethics Committee, and approved by the University Research Ethics Committee at Lancaster University.

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

The survey contact details page includes contact details for the researcher and also for other people should you prefer to speak to someone else or to make a complaint.

Contact details which are accessible on each page of the survey

Contact Us

If you have any questions about the study, please contact the main researcher, Simon Bradstreet via s.bradstreet@lancaster.ac.uk

Alternatively you may wish to contact the research supervisor, Professor Steven Jones, Co-Director Spectrum Centre for Mental Health Research
Tel: 01524 593382
Email: s.jones7@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:

Professor Steven Jones, Co-Director Spectrum Centre for Mental Health Research
Tel: 01524 593382
Email: s.jones7@lancaster.ac.uk
Address: Faculty of Health and Medicine, Lancaster University, Lancaster, LA1 4YD

If you wish to speak to someone outside of the Programme, you may also contact:

Professor Roger Pickup, Associate Dean for Research
Tel: (01524) 593746
Email: r.pickup@lancaster.ac.uk
Address: Faculty of Health and Medicine (Division of Biomedical and Life Sciences), Lancaster University, Lancaster, LA1 4YD

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.

In Scotland
Breathing Space is a free, confidential phone and web based service for people in Scotland experiencing low mood, depression or anxiety.
Phone: 0800 83 85 87 (6pm-2am weekdays and 6pm-6am weekends)

Outside Scotland
NHS Choices features information on all aspects of mental health including a directory of helplines and a local services directory.

Across the UK
Samaritans offer confidential support for people experiencing feelings of distress or despair.
Phone: 08457 90 90 90 (24-hour helpline)

To return to the survey please use the back arrow on your browser.

Page 3: Consent

Now that you have read about the background to this study please read the following statements. If you agree then please add your initials after each statement. This confirms your consent to participate.

I confirm that I have read the information provided about this research and fully understand what is expected of me (initial if yes).	
I confirm that I have had the opportunity to ask any questions and to have them answered (initial if yes).	
I understand that it might not be possible for information I have provided to be withdrawn, though every attempt will be made to do so (initial if yes).	
I understand that the information I provide will be added to other participant's responses, anonymised and may be published (initial if yes).	
I consent to take part in this study (initial if yes).	

If you would like to review the information previously provided you can use the 'Previous' button at the bottom left of this page. If you have any questions about the statements on this page please contact the researcher.

Page 4: Information about you

Please note your age

Please select your gender

- Male ❑
- Female ❑
- Transgender ❑

Which of the following mental health diagnoses apply to you? (tick all that apply)

- Depression ❑
- Bipolar disorder (manic depression) ❑
- Postnatal depression ❑
- Schizophrenia ❑
- Anxiety ❑
- Obsessive compulsive disorder ❑
- Personality disorder ❑
- Eating disorder ❑
- Not sure ❑
- Other ❑

If you selected Other, please specify below:

How long ago was it you first received a mental health diagnosis?

- Less than five years ❑
- Five to ten years ❑
- More than ten years ❑
- Not sure ❑

Please describe your employment status (tick all that apply)

- Employed part time ❑
- Employed full time ❑
- Volunteer ❑
- Student ❑
- Not employed but currently unable to work ❑
- Not employed but seeking employment ❑
- Retired ❑
- Other ❑

If you selected Other, please specify below:

Mental health issues can affect our ability to do certain day-to-day tasks in life. Look at each statement and determine on the scale how much your mental health impairs your ability to carry out the activity.

	0 Not at all	1	2 Slightly	3	4 Definitely	5	6 Markedly	7 Very severely
My ability to work is impaired.	❑	❑	❑	❑	❑	❑	❑	❑
My home management (cleaning, tidying, shopping, cooking, looking after home or children, paying bills) is impaired.	❑	❑	❑	❑	❑	❑	❑	❑
My social leisure activities (with other people e.g. parties, bars, clubs, outings, visits, dating, home entertaining) are impaired.	❑	❑	❑	❑	❑	❑	❑	❑
My private leisure activities (done alone, such as reading, gardening, collecting, sewing, walking alone) are impaired.	❑	❑	❑	❑	❑	❑	❑	❑
My ability to form and maintain close relationships with others, including those I live with, is impaired.	❑	❑	❑	❑	❑	❑	❑	❑

You're well on your way now! The next five pages feature short sets of multiple choice questions.

Page 5: Scale 1

We all differ in how we relate to other people. This set of questions lists different thoughts, feelings and ways of behaving in relationships with others. Thinking generally about how you relate to other key people in your life, please use a tick to show how much each statement is like you. Key people could include family members, friends, partner or mental health workers.

	1 Not at all	2 A little	3 Quite a bit	4 Very much
I prefer not to let other people know my 'true' thoughts and feelings.	❑	❑	❑	❑
I find it easy to depend on other people for support with problems or difficult situations.	❑	❑	❑	❑
I tend to get upset, anxious or angry if other people are not there when I need them.	❑	❑	❑	❑
I usually discuss my problems and concerns with other people.	❑	❑	❑	❑
I worry that key people in my life won't be around in the future.	❑	❑	❑	❑
I ask other people to reassure me that they care about me.	❑	❑	❑	❑
If other people disapprove of something I do, I get very upset.	❑	❑	❑	❑
I find it difficult to accept help from other people when I have problems or difficulties.	❑	❑	❑	❑
It helps to turn to other people when I'm stressed.	❑	❑	❑	❑
I worry that if other people get to know me better, they won't like me.	❑	❑	❑	❑
When I'm feeling stressed, I prefer being on my own to being in the company of other people.	❑	❑	❑	❑
I worry a lot about my relationships with other people.	❑	❑	❑	❑
I try to cope with stressful situations on my own.	❑	❑	❑	❑
I worry that if I displease other people, they won't want to know me anymore.	❑	❑	❑	❑
I worry about having to cope with problems and difficult situations on my own.	❑	❑	❑	❑
I feel uncomfortable when other people want to get to know me better.	❑	❑	❑	❑

That was the longest set of questions in this survey. Just four shorter sets of questions to go.

Page 6: Scale 2

These questions are about your views of how the general public view people with experience of mental health issues. The statements use the term “mental illness.” You may prefer to use another term to describe your experiences. Please rate how much you agree with each statement.

	1 Strongly disagree	2 Disagree	3 Agree	4 Strongly agree
I think most people take the opinion of someone who has been treated for a mental illness less seriously.	❑	❑	❑	❑
I think most people consider someone who has been treated for a mental illness to be dangerous.	❑	❑	❑	❑
I think most people hesitate to do business with someone who has been treated for a mental illness.	❑	❑	❑	❑
I think most people think badly of someone who has been treated for a mental illness.	❑	❑	❑	❑
I think most people consider mental illness to be a sign of personal weakness.	❑	❑	❑	❑
I think most people hesitate to entrust their child with someone who has been treated for a mental illness.	❑	❑	❑	❑
I think most people do not even take a look at an application from someone who has been treated for a mental illness.	❑	❑	❑	❑
I think most people do not enter into a relationship with someone who has been treated for a mental illness.	❑	❑	❑	❑
I think most people feel uneasy when someone who has been treated for a mental illness moves into the neighbourhood.	❑	❑	❑	❑

By generously taking the time to complete this survey you are helping inform new approaches to ending stigma.

Page 7: Scale 3

These questions are about your own personal views of mental health issues. The statements use the term “mental illness.” You may prefer to use another term to describe your experiences. Please rate how much you agree with each statement.

	1	2	3	4
	Strongly disagree	Disagree	Agree	Strongly agree
Mentally ill people tend to be violent.	❑	❑	❑	❑
People with mental illness make important contributions to society.	❑	❑	❑	❑
I don’t socialize as much as I used to because my mental illness might make me look or behave “weird.”	❑	❑	❑	❑
Having a mental illness has spoiled my life.	❑	❑	❑	❑
People without mental illness could not possibly understand me.	❑	❑	❑	❑
People ignore me or take me less seriously just because I have a mental illness.	❑	❑	❑	❑
I can’t contribute anything to society because I have a mental illness.	❑	❑	❑	❑
I can have a good, fulfilling life, despite my mental illness.	❑	❑	❑	❑
Others think that I can’t achieve much in life because I have a mental illness.	❑	❑	❑	❑

The processes that underpin stigma are poorly understood. This research is designed to help with that. Just two short set of questions to go.

Page 8: Scale 4

This scale relates to your current general mood. For each of the following statements, please tick at the point on the line that best describes the way you have felt over the past 24 hours. While there may have been some change during that time, try to give a single summary rating for each item.

	0 Not at all	1	2	3	4	5	6	7	8	9	10 Very much so
Today I feel a capable person	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I actually feel great inside	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I feel impulsive	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I feel depressed	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today my thoughts are going fast	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today it seems like nothing will ever work out for me	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I feel overactive	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I feel “sped up” inside	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I feel restless	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Today I feel energised	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑

You're almost there - the next page is the last!

Page 9: Scale 5

This list of statements is about your general feelings about yourself. Select the choice which best fits your view of yourself.

	1 Strongly disagree	2 Disagree	3 Agree	4 Strongly agree
On the whole, I am satisfied with myself.	❑	❑	❑	❑
At times, I think I am no good at all.	❑	❑	❑	❑
I feel that I have a number of good qualities.	❑	❑	❑	❑
I am able to do things as well as most other people.	❑	❑	❑	❑
I feel I do not have much to be proud of.	❑	❑	❑	❑
I certainly feel useless at times.	❑	❑	❑	❑
I feel that I'm a person of worth, at least on an equal plane with others.	❑	❑	❑	❑
I wish I could have more respect for myself.	❑	❑	❑	❑
All in all, I am inclined to feel that I am a failure.	❑	❑	❑	❑
I take a positive attitude toward myself.	❑	❑	❑	❑

If you would like receive email updates on the progress of this study or to receive a final summary report you have the option to provide an email address below. If you do share your email address it will be stored separately from your survey responses so that you can't be identified. Alternatively feel free to email s.bradstreet@lancaster.ac.uk to request updates or a summary report.

That's it - no more questions! Click finish (below) to submit your responses. You will then have the option to download your responses.

Page 10: End

Download my responses

You have 15 minutes to view this data

- My responses

Thank you very much for your participation in this study.