Physical health care and staff training:

An exploration of the experiences of mental health nurses, managers of mental health nurses and trainers

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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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I dedicate this thesis to the memory of my parents Alhaji Baimba Jabbie and Asmao Diakhaby (Nanday Suma) with a special dedication to my mum Asmao Diakhaby (1949-2020): I hope you are proud.

Abstract

Background:

It is known that people with serious mental illness have higher mortality and morbidity rates compared with the general population and the reasons for this are multifaceted. Mental health nurses are in a pivotal position to address physical health inequalities experienced by this population group, but research indicates that they may lack the skills, knowledge, and confidence to provide patient centred and integrated care. It is important to understand the views and experiences of mental health nurses and other key stakeholders regarding physical health care provided to this population group and training to improve physical health care.

An initial systematic review with narrative synthesis explored the views and perceptions of key stakeholders (mental health nurses, managers of mental health nurses and trainers) in relation to physical health care training needs of mental health nurses and the effectiveness of training. The results from the review informed the research questions and qualitative design of this empirical study

Aim:

The aim of the study is to explore the views and experiences of mental health nurses and other key stakeholders about (a) the care given to people with serious mental illness who have physical healthcare needs in acute in-patient mental health settings(b) the training provided to mental health nurses to enable them to provide care to people with serious mental illness who have physical healthcare needs.

Methods:

The design of the empirical research is a qualitative interview-based study using reflexive thematic analysis (Braun & Clarke 2019) underpinned by hermeneutical-phenomenological epistemology. In total, eighteen in depth interviews were conducted with inpatient mental health staff (nine mental health nurses, four managers of mental health nurses and five trainers in physical health care) from a single NHS Foundation Trust in England. The analysis of qualitative data was informed by Braun & Clarke (2019) reflexive thematic analysis.

Findings:

Four themes were developed under the following headings: (1) Culture of care and sense of competence: **"**Oh yeah, they asked me to do blood sugar. I told them I'm not there for the physical health, I'm there for the mental health" (2) Promoting professional autonomy: "Training went to waste" (3) The influence of mental state: "They tell you that, "I don't need it; I don't think anything is wrong" (4) Training success: what does it mean to me?

Conclusion:

As an original contribution to knowledge, this thesis concludes with discussion which highlights that adequate pre-registration education and post registration training, existence of supportive conditions and culture of care that equally prioritises mental and physical health care shape the delivery of optimal physical health care.

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Chapter 1. Introduction

1.1 Chapter overview

This chapter begins with an overview and description of the background to the research. These include mental disorders and physical health inequalities experienced by people with mental disorders representing a global public health concern and challenge. The background chapter also provides an exploration of the factors contributing to mortality and physical morbidity gap, the role of mental health nurses in addressing inequities and policy context in bridging the gap in mortality and morbidity. Furthermore, in the background chapter, the role of theory and theoretical frameworks in evaluating training needs and perceived training effectiveness is discussed and the rationale for selecting Noe and Colquitt (2002) theoretical framework of training effectiveness as the choice for this study. Definitions of key concepts are also provided. The background chapter concludes with an explanation of the rationale for conducting this study.

1.2 Mental disorders- a global public health concern and challenge

Mental disorders represent a global public health concern and challenge (Arias et al., 2022; Leichsenring et al., 2022). In terms of the epidemiological burden of mental disorders , the Global Burden of Disease study attributes 15 years of lives lost due to mental disorders leading to one of the greatest contributors of the causes of disability globally (Arias et al., 2022). Mental health problems are reported to affect one in four people in the UK. Results from three English national population surveys of

psychiatric morbidity provides a prevalence rate of 1% for psychosis, 8% for severe common health disorders and one in six for less severe common mental disorders (Bebbington & McManus, 2020). Common mental health disorders include conditions like anxiety, depression, obsessive compulsive disorders and phobias (Baker & Kirk-Wade, 2024). In the UK, the lifetime prevalence of severe mental illnesses generally referred to as Schizophrenia spectrum disorders and bipolar affective disorders is 0.5% and 1% respectively (Mansour et al., 2020). In 2019, global estimates include 280 million people living with depression, 40 million experienced bipolar disorder, 301 million people with an anxiety disorder, 24 million living with schizophrenia and 14 million with eating disorders (World Health Organisation, 2022a).

The NHS in England spent £16 billion pounds on mental health services in 2022/23 which represents 14% of local NHS funding allocations (Baker & Kirk-Wade, 2024). An estimate of the annual costs of poor mental health in the UK in 2019 which includes lost productivity of people living with mental illness as well as costs associated with informal carers is £100.8 billion (McDaid et al., 2022). A review of literature from UK, Canada, Australia and New Zealand revealed that having a mental illness decreases the chances of finishing school, gaining full time employment, having a highly paid professional career and good quality of life (Doran & Kinchin, 2017). In Canada, the total economic costs associated with mental illness is expected to increase six times by 2030 and costs exceeding $2.8 trillion Australian dollars (Doran & Kinchin, 2017).

1.3 Gaps in mortality and physical morbidity

The physical health of people with serious mental illness (Schizophrenia, affective disorder, bipolar disorder or other types of psychosis) are poorer than that of the general population (Fiorillo et al., 2023; Fiorillo & Sartorius, 2021; Halstead et al., 2024; Pizzol et al., 2023; Protani et al., 2022; Reilly et al., 2015). People with serious mental illness die about 10-20 years earlier compared with the general population (De Mooij et al., 2019; Fiorillo & Sartorius, 2021; Gronholm et al., 2021; Tuudah et al., 2022). Results from systematic reviews and metanalyses show that all-cause mortality in patients with serious mental illness is between two to five times more than the general population (Ali et al., 2022; Correll et al., 2017; De Mooij et al., 2019; John et al., 2018). There is also evidence that the mortality gap is widening over time nationally (UK) and internationally. In the UK, the mortality gap between people living with severe mental illness and the general population is reported to be increasing. In the period from 2015-2017, patients were 4.6 times likely to die before the age of 75 if they have a serious mental illness and this increased to 4.9 times in the period 2018-2020 (Royal College of Psychiatrists, 2023). Globally, the relative mortality risk associated with Schizophrenia and other serious mental disorders is reported to be increasing in a linear fashion over the past decades (Correll et al., 2017; Gatov et al., 2017; Oakley et al., 2018; Saha et al., 2007).

There is higher prevalence of physical comorbidity rates in people with severe mental illness compared to the general population. The findings from systematic reviews and meta-analyses suggest at least a doubling of risk of physical comorbidity for people

with severe mental illness (Hill & Hill, 2024; Pizzol et al., 2023; Rodrigues et al., 2021). The main conditions associated with increased risk were obesity, metabolic syndrome, diabetes, cardiovascular diseases including hypertension, congestive heart failure, peripheral vascular disease, cardiac arrythmia, myocardial infarction, renal, respiratory, liver, seizures, respiratory and gastrointestinal diseases (Halstead et al., 2024; Hill & Hill, 2024; Launders et al., 2022; Rodrigues et al., 2021).

1.3 Factors contributing to excess mortality and physical comorbidity

The gap between physical health of people with serious mental illness and those without is an important public health issue that needs to be addressed, and it is important that the factors contributing to this gap are understood.

1.3.1 Adverse effects of psychotropic medication

The side effects of psychotropic medication used to treat the symptoms of severe mental disorders are linked to an increased risk of developing physical health conditions and associated complications (Correll et al., 2015; Gronholm et al., 2021; Reilly et al., 2015). Some antipsychotic medication including haloperidol used for the treatment of Schizophrenia and other severe mental illness have been associated with sudden cardiac death and major cardiac events (Howell et al., 2019; Jones et al., 2013; Murray-Thomas et al., 2013). Some typical or older generation antipsychotic medication have been linked to tardive dyskinesia which is a severe movement

disorder that is iatrogenic, debilitating, irreversible and causes a decreased quality of life and functioning (Kameg & Champion, 2022). Antipsychotic agents can cause extra pyramidal motor side effects such as parkinsonism, acute dystonia and akathisia although newer antipsychotic medication have been reported to cause lower rates or incidence of these symptoms compared to older generation antipsychotics (Peluso et al., 2012; Solmi et al., 2017). Antipsychotic induced constipation indicates that antipsychotics might affect gut motility (Chen & Hsieh, 2018; Xu et al., 2022); sexual dysfunction is also common with antipsychotics and antidepressant medication impacting on quality of life (Montejo et al., 2018; Rothmore, 2020); long term use of lithium which is a mood stabilising agent can result in kidney damage (Gong et al., 2016; Schoot et al., 2020).

A major concern is weight gain and metabolic syndrome associated with psychotropic medication and in particular second-generation antipsychotics (Abosi et al., 2018; Fitzgerald et al., 2021; Mazereel et al., 2020; McIntyre et al., 2024). Weight gain is a common adverse effect of clozapine used for drug resistant schizophrenia and increases the risk of insulin resistance, type 2 diabetes, hypercholesterolaemia, diabetic ketoacidosis and cardiovascular disease (De Berardis et al., 2018). A metanalysis of randomised controlled trials of patients with first episode psychosis or early stage schizophrenia on olanzapine treatment showed mean (95% CI) weight gain of 7.53 (6.42–8.63) kg for studies that reported weight gain (Correll et al., 2023). Weight gain is also a major reason for non-adherence with medication leading to relapses and re-hospitalisation (Fitzgerald et al., 2021).

1.3.2 Lifestyle choices and other factors contributing to excess mortality and physical morbidity

Preventable and modifiable risk factors including lifestyle choices contribute to health inequalities in this population group. Higher rates of smoking, alcohol consumption, poor nutrition, unsafe sexual behaviours, and drug use places them at higher risk of morbidity and mortality (De Hert et al., 2011; Ho et al., 2022; Parks et al., 2006; Strunz et al., 2022). Alcohol affects different body systems with a potential to cause serious harm including cancers, liver problems and cardiovascular diseases (Gomez et al., 2023). People with mental health conditions concurrent with problematic alcohol use experience a greater burden of physical illnesses (Gomez et al., 2023). Smoking amongst people with mental disorders is disproportionately high with approximately 60% of those who experience psychotic illness smoke (Lappin et al., 2020). Smoking related illness such as cancers and cardiovascular diseases contribute significantly to higher mortality and morbidity rates suffered by people experiencing severe mental illness (Lappin et al., 2020). For individuals experiencing serious mental illness, tobacco smoking and alcohol misuse are modifiable risk factors for poor physical and mental health and should be key targets for interventions.

Other modifiable risk factors include under utilisation of health care services due to amotivation, stigma, fearfulness and lack of equitable opportunities in physical health for people with severe mental disorders including screening, prevention and control (Gronholm et al., 2021; Parks et al., 2006; Protani et al., 2022; Strunz et al., 2022); fragmentation and lack of coordination and collaboration between mental health and

general health services (Ho et al., 2022; Melamed et al., 2019; Parks et al., 2006; Strunz et al., 2022). Lack of education, alienation from social network , poverty including lack of insurance coverages influences negatively on help seeking and accessing healthcare services (Grassi & Riba, 2021; Tuschick et al., 2024).

A person's experience of mental and physical health is influenced by social, economic and physical environments that happen at different stages of their lives (World Health Organisation, 2014). Strong socioeconomic gradients have been linked with an array of health problems and may take several forms including finance, occupation, education, housing and living standards (Kirkbride et al., 2024). Other social determinants of health include racial, ethnic and other forms of discrimination, neighbourhoods, transportation, and access to affordable healthcare (Jeste & Pender, 2022).

Poor and negative perceptions of the relationships with healthcare professionals and perceived competencies of professionals influence physical health care experiences of patients with serious mental illness. Poor communication, stigmatising attitudes of healthcare professionals, service users and carers perceptions that their needs are not understood discourages from accessing healthcare services (Ho et al., 2022; Tuschick et al., 2024). Mental health professionals often lack sufficient knowledge, expertise and skills to deal with physical health comorbidities and general health professionals are also ill-equipped to deal with patients with serious mental illness (Ho et al., 2022; Melamed et al., 2019); mental health professionals prioritising mental health care over

physical health care and ambivalence about physical health care role (Happell et al., 2014).

1.4 Mental health nurses' role in addressing physical health disparities

Mental health nurses represent the highest percentage of the mental healthcare workforce (44%) globally and are pivotal in providing access to mental health care and services (International Council of Nurses, 2022). It is estimated that there are 300,000 mental health nurses globally and this varies from about 0.9 per 100,000 in Africa to 25.2 per 100,000 in Europe (International Council of Nurses, 2022). Mental health nurses are ideally placed and have opportunities to reduce physical health inequalities. Patient centred care is integral to the role of mental health nurses and involves comprehensive assessment of the needs of the patient including psychological, physical, social, cultural, and spiritual needs (Happell et al., 2019; Hurley et al., 2022; Robson et al., 2013; Scott & Happell, 2011). Alongside management of mental health problems, mental health nurses have opportunities to manage physical health symptoms and promote healthy lifestyles and behaviour change (Robson et al., 2013); they also can encourage and promote physical health checks and screening (Happell et al., 2014); follow up checks, discussions and referrals to appropriate specialist and services for those who require physical health interventions (Happell et al., 2014; Scott & Happell, 2011).

Barriers to the provision of physical health care by mental health nurses include workload, time and resources (Gurusamy et al., 2023; Happell et al., 2019; Långstedt et al., 2024); role ambivalence and dichotomy of physical health and mental health role (Happell et al., 2019); lack of knowledge, skills and confidence (Bressington et al., 2018; Dorey et al., 2023; Tzeng et al., 2023). Educational preparation for nurses in the UK and internationally have historically adopted a mental health or physical health focus impacting on the ability of nurses to provide care leading to poorer outcomes for patients with co-morbidities (Tyler et al., 2019). Bressington et al. (2018) reported findings from a survey of 481 nurses in three Asian countries and over three quarters of the mental health nurses reported training needs in cardiovascular health and diabetes management. Dorey et al.2023 systematic review identified perceived inadequate type2 diabetes care skills and knowledge by mental health professionals as a barrier and identified training needs for more practical skills including foot care, medication management and insulin training. For mental health nurses to be adept to the challenges of providing patient centred care, changes are required in education, practice and ethos of care (Robson et al., 2013; Tyler et al., 2019)

1.5 Addressing healthcare disparities: UK policy context

In the United Kingdom, achieving parity in physical health and mental health provision is now official government policy. Parity of esteem is the principle by which mental health and physical health are placed at equal footing in terms of priority (Mitchell et al., 2017). In the UK, it was made into law by the Health and

Social Care Act 2012 (UK Government, 2012) and in the United States in 2008 under the Mental Health Parity and Addiction Equity Act (Mitchell et al., 2017). Fundamentally, parity of esteem aims at addressing mortality gap, treatment gap and funding gap (Mitchell et al., 2017). The UK government requires NHS England (the body that commissions primary care and other key services) to work towards equality in mental and physical health provision (NHS England, 2018, 2024b). However, the relatively high mortality and morbidity rates amongst people with serious mental illness remains a central issue (NHS England, 2024b). A prime objective of NHS England comprehensive guidance for improving physical healthcare for people living with serious mental illness is to have their physical health needs addressed by screening and early detection, and improved access to evidence-based physical assessment and intervention (NHS England, 2016, 2018, 2024b). In another policy development, NHS England introduced financial payment schemes to mental health trusts through the Commissioning for Quality and Innovation (CQUIN) framework to improve physical health in people living with severe mental illness (Mitchell et al., 2017; National Institue for Health Research, 2018).

Workforce training and planning in the UK is also a central plank of policy development to address the inequities in physical health care for people living with serious mental illness. A working group formed by Academy of Royal Medical Colleges (2016) for improving physical health recommended a review of the training requirements of mental health professionals to ensure that they meet the role expected of them in the physical healthcare of their patients. The working group recommended that training should include assessment of physical health, NEWS (National Early Warning Scores), health promotion and disease prevention, referral to specialists, and

management of long-term conditions. The Willis (2015) Shape of Caring Review which was commissioned by Health Education England (Education Commissioner) to review nurse education recommended changes to pre-registration education. Following the review, the Nursing and Midwifery Council (2018) (nurse regulatory body for the United Kingdom and Northern Ireland) developed its new Standards of Proficiency for Registered Nurses designed to be used across all the fields to adequately prepare nurses in providing integrated and patient centred care.

1.6 Definition of key concepts/terms

1.6.1 Mental health and illness

The World Health Organisation (WHO) defines mental health as "a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community"(World Health Organisation, 2022b). Mental health is not merely the absence of disease, it involves individuals maintaining self-esteem, mastery and the ability to establish and keep meaningful relationships with others (Scheid & Wright, 2017; World Health Organisation, 2022b). Mental health conditions include mental disorders and psychosocial disabilities but could also encompass other mental states that cause serious distress, impairment in level of functioning and risk of harm to self (World Health Organisation, 2022b).

1.6.2 Physical health care

The focus of this thesis is on the quality of physical health care delivered in inpatient mental health settings. Patients who are admitted to mental health inpatient wards tend to have severe or complex conditions. The deterioration in mental health that leads to an inpatient stay is often accompanied by deterioration in physical health (NCEPOD, 2022). Mental health inpatient settings provide a valuable safety net to enable interventions focused on the physical health care of a population group who may be difficult to engage with in primary care (NCEPOD, 2022). Physical health care in this context refers to interventions that promote or improve the physical well-being or status of people suffering from severe mental illness (Hardy et al., 2011; Mwebe, 2017). Physical health care is a comprehensive approach that includes physical health assessments and screening, lifestyle support including health education, monitoring of medication including side effects of psychotropic medication, collaborating and coordinating with other healthcare professionals and teams (NCEPOD, 2022; NHS England, 2024b; NIHR, 2023).

Improvements in physical well-being or status of inpatients with serious mental illness can be attained by managing and reducing the impact of unhealthy lifestyles including smoking, lack of exercise, poor diet, alcohol and illicit substance misuse (Public Health England, 2018). Other areas include improving adherence with treatment and managing side effects of psychotropic medication, in particular weight gain, metabolic syndrome and cardiovascular side effects (Public Health England, 2018). In inpatient mental health wards, physical health care may include completing baseline and ongoing observations, recognising and managing signs of a physically deteriorating patient, escalation of National Early Warning Signs (NEWS2), cardiometabolic risk assessment and care planning, referrals to specialist services,

discharge safety practices, smoking, substance and alcohol use assessment and interventions for problematic use (NCEPOD, 2022; NHS England, 2024a).

1.6.3 Training and education

The terms training and education are often used interchangeably but may have very different and sometimes overlapping meaning depending on context (Garavan, 1997; Karan, 2025; Masadeh, 2012). Training is an organised and systematic approach that seeks to influence individuals' knowledge, skills and attitudes with a view of improving individual, team and organisational effectiveness (Shenge, 2014). Training focuses on job skills acquired for a particular role. Education often relates to a more formal academic background (Barnes, 2021; Masadeh, 2012). Training refers to any activity or course either formal or informal which helps one to acquire knowledge and skills to do the job. Education is defined as a broader intellectual development and less hands-on approach to enhancing knowledge and skills (Barnes, 2021; Karan, 2025; Masadeh, 2012). Training often equips individuals for immediate tasks and education providing a broader foundation that supports longer-term adaptability and growth. These terms are compared in table 1.1.

Table 1.1 Comparison of the terms 'training' and 'education'

Aspects	**Training**	**Education**
Objectives	Building skills or skillset for a particular job or role, improving productivity	Developing sense of reasoning and judgement
Timescales	Short-term as focused on developing specific	Longer duration which could be years

	skillset ranging from few hours to weeks	
Learning approach	Hands-on practice or experiential including interactive sessions, simulations and group discussions	Emphasis on theoretical understanding, critical thinking and analysis
Content	Topics or skills required to undertake specific tasks	Provides broad and conceptual understanding of fields
Assessment approach	Skills based tests or performance related	Essays, exams and research focused
Context	Job related	Academic and more formal
Location	Usually in workplace or virtual work platform.	Typically, classroom based, colleges or universities.

Table adapted from Karan (2025) Differences in training and education

While this comparison highlights some important differences between training and education, it is worth emphasising that the boundaries are not always clear-cut. In practice, the two often overlap and reinforce one another. For instance, many professional training programmes now include elements of critical reflection and theory (e.g., leadership training that draws on organisational psychology), while higher education increasingly incorporates practical, skills-based learning (e.g., clinical placements in nursing or internships within business courses).

In the context of this empirical study, education was taken to refer to the various approaches that are used to prepare students for their eventual practice as qualified or registered practitioners in nursing (Grant, 2006). However, the focus of the research is post registration/on the job training in physical healthcare. Physical health care training in the context of this study refers to training that is provided to mental healthcare professionals to deliver interventions aimed at improving the physical healthcare of in-patients with serious mental illness (Hardy et al., 2011). This definition has been chosen because of its flexibility and applicability across different types of interventions The mode or character of delivery could be wide ranging including face to face with or without written materials, online platform, e-learning, group, one to one, didactic, experiential etc. (Hardy et al., 2011)

1.6.4 Serious/Severe mental illness (SMI)

The term serious or severe mental illness is an umbrella term for a group of psychiatric disorders mainly bipolar disorder, schizophrenia and major depressive disorder (Meyer et al., 2018; Regev & Josman, 2020). It is often linked with high functional difficulties and impairments, resulting in greater risk of poverty, joblessness and unstable housing (Jameel et al., 2022; Regev & Josman, 2020). In addition to the economic and social burden associated with severe mental illness, they adversely affect carers and family members (Hu et al., 2023). They are associated with excess mortality and morbidity rates. People with serious mental illness have an excess mortality of 2-3 times that of the general population (Miorelli, 2020). Suicidal related behaviours including suicidal ideation, suicidal attempts and suicide death is also heightened in this population group (Hu et al., 2023). Readmission rates for people with severe mental illness range from 33-55% within 1-10 years following a long term hospital admission (Sato et al., 2023)

1.7 Theoretical frameworks/models of training effectiveness and choice for this study

This study considers the training needs of acute in-patient mental health nurses and perceived effectiveness of training in physical health care that is provided to mental health nurses. Effective training is expected to result in improved job performance, raise morale and increase the potential of the organization (Shenge, 2014; Topno, 2012). It is important that investment in training results in optimal transfer to the work environment and organisations are particularly interested in evaluating the costs versus the benefits of training. However, the goals of training should be clear and realistic from the outset as they will determine training content and guide the criteria to judge training effectiveness (Shenge, 2014). The objectives of training evaluation are to determine whether training objectives have been achieved (learning issues) and whether these have resulted in improved performance (transfer issues) in the job (Kraiger et al., 1993). It is vital that training in physical health care provided to mental health nurses is evidence based. If the impact of training on mental health nurses' knowledge, attitudes and behaviours is not understood, it may be impossible to determine reasons for changes in patients' outcomes (Hardy et al., 2011).

It is important to consider theoretical frameworks to guide researchers in making decisions about how to evaluate learning. Theories are abstractions that enables us to make sense of many facts that are related to an issue (Blanchard et al., 2023) . Theories help us to explain known facts, predict future events, to achieve desirable outcomes, and avoid undesirable outcomes (Blanchard et al., 2023). For the design

and implementation of effective training, it is important to understand how people learn, what motivates people to learn and how the learning and work environment influences motivation and performance (Blanchard et al., 2023). Effective training practices are developed from theories and theoretical constructs that describes how people learn, what motivates learning, and obstacles in the learning and work environment that affects transfer of learning to the job site (Blanchard et al., 2023). Important questions about training are also predicated on sound theoretical frameworks of training for instance, it is understood that some performance issues can have many causes which may not be necessarily be influenced by training in itself (Shenge, 2014).

There are different theoretical frameworks/models that are used to evaluate training effectiveness and that could be applied for the purposes of this study. Historically, the most popular theory of training effectiveness evaluation is the model by Kirkpatrick (1979) which is structured around four levels. The levels include Reaction (immediate reactions at the end of the training program); Learning (knowledge, skills and attitude changes); Behaviour (transfer of training to the job); and Results (impact of training on the organisation in terms of costs and return on investment). However, critics of Kirkpatrick's framework suggest that it is now outdated and suggestions of hierarchy of levels with some superior to others is flawed (Beech & Leather, 2006). Secondly, it assumes that the levels are causally or sequentially linked for example learning can be viewed as a reaction to training and can also cause changes in the behaviour of the learner/trainee (Beech & Leather, 2006; Tamkin et al., 2002). It also fails to clarify the operationalisation of different levels of measurements and lacking suggestions regarding different methods for evaluating the four levels (Beech & Leather, 2006).

Finally, it lacks the ideas of modern psychological ideas and rely mostly on older models including the behaviour stimulus response models (Beech & Leather, 2006)

There have been several developments or improvements of Kirkpatrick's theoretical framework. The CIRO model of evaluation incorporates some elements of Kirkpatrick's model but broadened evaluation to include context of evaluation and available resources (Topno, 2012). The levels include evaluation at four levels: Context, Input, Reaction and Outcome. Hamblin's five level model of evaluation also builds on Kirkpatrick's model and created a fifth by dividing the fourth into two, distinguishing between outcomes of an organisation based on productivity and those based on cost-effectiveness (Beech & Leather, 2006). Kraiger et al. (2004) further made a distinction between training evaluation and training effectiveness. Training evaluation refers to the study of whether training works (training results in desired changes in trainee's knowledge and skills) and training effectiveness is why it works.

Noe and Colquitt (2002) theoretical framework of training effectiveness asserts that features of the training environment, trainee characteristics and work environment influences both learning and transfer. This model was chosen for the purposes of this study and the reason I chose this framework over the other frameworks described is that it integrates both training evaluation and training effectiveness (Kraiger et al., 2004) and, facilitates our understanding of why and how training works. See figure 1 below for this theoretical framework.

Trainees who feel confident of success in their training, see relevance to their jobs and careers, and value the outcomes of training will generally be more motivated in

training (Kraiger et al., 2004; Noe & Colquitt, 2002). Trainee characteristics that would influence motivation and training effectiveness include those with higher cognitive ability, trainees who are more conscientious, less anxious and often younger (Kraiger et al., 2004; Noe & Colquitt, 2002). Even though employers cannot per se influence employee characteristics, but this can be useful in terms of screening employees' abilities and selection process. Motivation to learn can also be influenced by organizational factors including provision of opportunities for career planning, self-efficacy of trainees, and job involvement. Work environment factors and supervisor support are positively connected to employees' motivation to learn and transfer of learning to the job (Kraiger et al., 2004; Noe & Colquitt, 2002). This model of training effectiveness also asserts that post training climate influences training effectiveness. If work environment and situation limits on the job behaviour change, it would be impossible for training to transfer in the workplace (Kraiger et al., 2004; Noe & Colquitt, 2002).

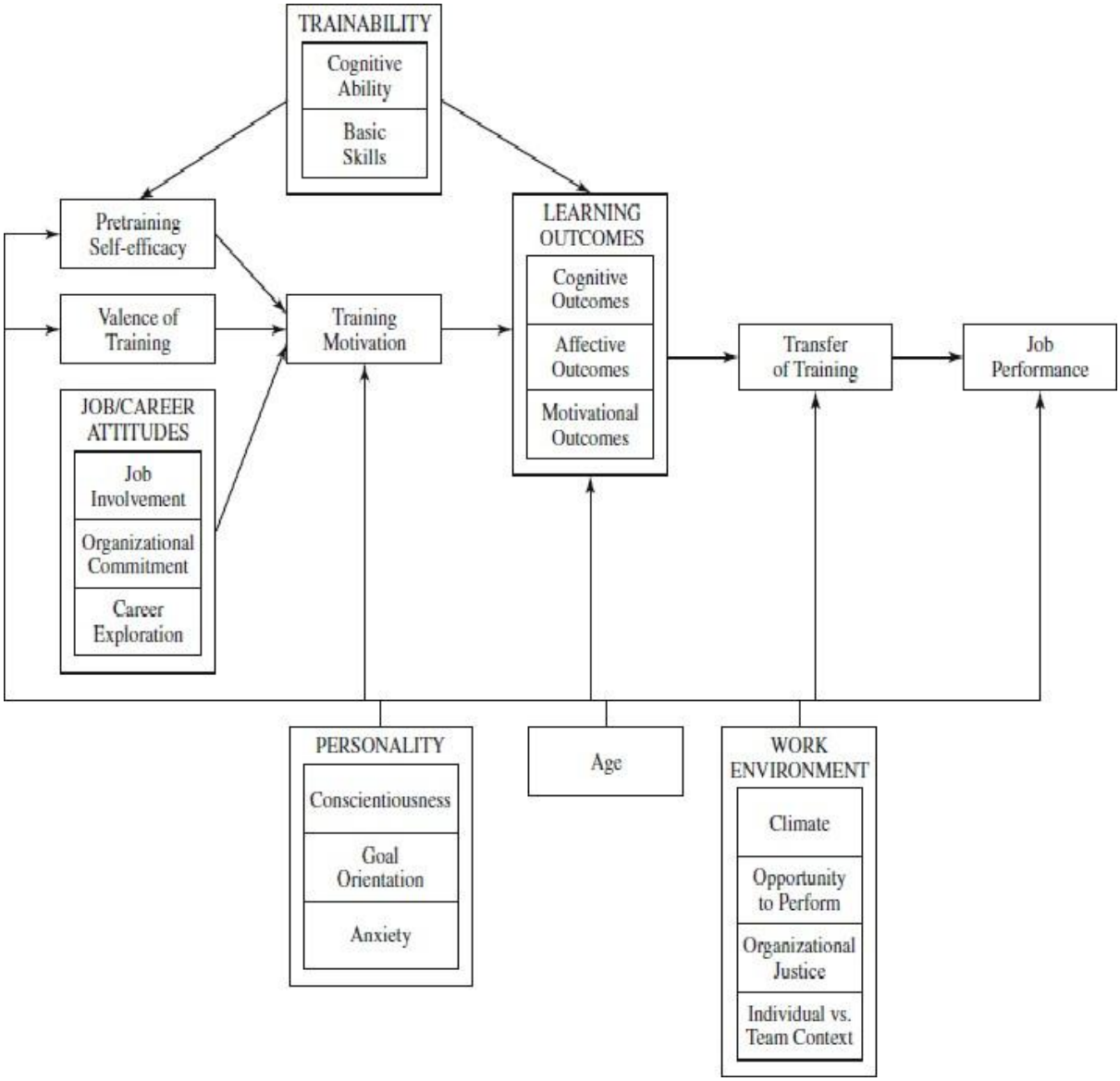

Figure 1.1 Noe and Colquitt (2002) theoretical framework of training effectiveness

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1.8 The rationale for conducting this research

The aim of this research is to facilitate understanding of the perceptions and experiences of key stakeholders (mental health nurses, managers of mental health nurses and trainers in physical health care) in relation to (a) physical health care that

is provided to patients with serious mental illness and (b) training in physical health care that is provided to mental health nurses. The literature review showed that the experiences and perceptions of above key stakeholders in relation to physical health care that is provided by mental health nurses and training is not well researched and understood. Gaps identified from the systematic literature review (Chapter 2) formed the basis of the empirical study.

In the empirical study, research was conducted with three groups of stakeholders with different responsibilities allowing experiences to be evaluated from different social perspectives in relation to physical health care and training. In addition to this advantage, this study utilised inductive thematic analysis (qualitative approach) resulting in collection of rich data about individual experiences. The study also utilised a strong theoretical base to consider the factors influencing motivation to learn, actual learning and transfer of learning to practice (Noe & Colquitt, 2002). The findings identified training needs of inpatient mental health nurses in relation to physical health care. The findings also contribute to the evidence base on mental health nurses training programmes and workshops in carrying out physical health checks and interventions to improve outcomes for patients. The findings also contribute to policy and decision making in relation to organisational culture, policy development and resource allocation.

1.9 Thesis structure

In chapter two, a systematic literature review (published as a paper in a peer reviewed journal) is presented. This was conducted to synthesise qualitative evidence of the training needs of mental health nurses in relation to physical health care that is provided to patients living with serious mental illness and perceived effectiveness of training provided to mental health nurses. The gaps identified provided the basis for conducting the study including research questions and, contributed to decisions made about the methodology and methods in conducting the study. The methodology and methods including reasons for choices made are outlined and discussed in chapter three of this thesis. The detailed findings from qualitative interviews including themes and supporting subthemes are presented in chapter four of the thesis. Chapter five concludes with a summary of the main findings, discussion of the findings in relation to wider literature and systematic literature chapter, relevant theory and policies. Noe and Colquitt (2002) theoretical framework of training effectiveness is also reflected in the context of the findings. Chapter five also includes reflexivity statement, strengths and limitations of the research, recommendations for policy and practice, and directions for future research.

Chapter 2: Systematic Literature Review

Most aspects of the systematic literature review that underpins this chapter have been published in a peer reviewed journal. All are original work of the author.

Jabbie, L., Walshe, C., & Ahmed, F. (2024). The views and perceptions of training in physical health care amongst mental health nurses, managers of mental health nurses and trainers: A systematically constructed narrative synthesis. *International Journal of Mental Health Nursing*, *33*(2), 309-323. https://doi.org/10.1111/inm.13253

2.1 Introduction

The literature on what is known about training in physical health care for mental health nurses to improve delivery of physical health care to patients with serious mental illness is critically discussed. This qualitative review explores the appropriateness of training for mental health nurses in promoting the delivery of physical health care. It is important that the perceptions of key stakeholders such as mental health nurses, managers and trainers are explored to enable a greater understanding of why and how physical health care training for mental health nurses may or not work. Existing related reviews on this topic have primarily focused on quantitative evidence exploring stakeholders views and have broader inclusion criteria of types of studies including service evaluations, quasi experimental designs, surveys and randomised controlled trials (Geoffrey L Dickens et al., 2019; Hennessy & Cocoman, 2018; Tosh et al., 2014; Tyler et al., 2019). It is important that qualitative

evidence is incorporated into a synthesis of existing literature to ensure that these important perceptions are understood and accounted for. A qualitative synthesis may help explore training needs and explain why and how training might or might not work. It is important that the views and perceptions of training needs are explored to inform the development of training and education. It is also equally significant for evidence-based training to be delivered.

*The aims of the review***:** to understand the views and perceptions of key stakeholders (mental health nurses, managers of mental health nurses and trainers) in relation to physical health care training needs of mental health nurses and the effectiveness of training.

2.2 Methods

2.2.1 Design

Review question. What are the views and perceptions of key stakeholders (mental health nurses, their managers and trainers) of the training needs of mental health nurses to improve physical health care in patients with serious mental illness and perceived effectiveness of training?

Review Design. The review deploys a qualitative narrative synthesis approach (Popay et al. 2006). Narrative synthesis seeks to generate a text-based understanding of a phenomenon to provide a thick description of the predominant issues identified from a body of literature (Popay et al., 2006). Narrative synthesis is an effective and

structured approach of extracting and allows synthesis of findings of qualitative studies that are heterogenous (Boland et al., 2017). The goal of the review is not to generate or build theories for reconceptualization of the findings of included studies but to gather and synthesise evidence in a systemic way in relation to a well-defined review question and aims. The narrative synthesis approach in this review is congruent with the review goals and question and follows a four-stage approach; developing a theory, developing a preliminary synthesis, exploring relationships within and between studies and assessing robustness of the synthesis (Popay et al. 2006). A meta-analysis was not congruent with the research question and goals of the research. The systematic review protocol was prospectively registered (PROSPERO protocol registration ID=CRD42021230923 and the ENTREQ guidelines guided reporting of this synthesis (Tong et al., 2012). Other review approaches such as qualitative meta-synthesis(Dixon-Woods et al., 2005) and grounded theory approaches (Booth et al., 2016) were considered for this review but lacked congruence with the review goals/aims. The methodology and approaches selected in a review are mainly driven by the research question, goals, the researcher's philosophical positioning, the context of the research, audience and synthesis output (Tong et al., 2012)

Theoretical framework for the review and application to synthesis of reviewed studies. Noe and Colquitt (2002) theoretical framework of training effectiveness was the theory chosen to guide coding, interpretation, synthesis of study results and findings, and assessing applicability of findings. This theoretical framework was selected because it integrates both training evaluation and training effectiveness. The objectives of training evaluation are to determine whether training objectives have

been achieved (learning issues) and whether these have resulted in improved performance (transfer issues) in the job (Sanjeevkumar et al., 2012). Kraiger et al. (2004) made a distinction between training evaluation and training effectiveness. Training evaluation refers to the study of whether training works (training results in desired changes in trainee's knowledge and skills) and training effectiveness is why it works.

Noe and Colquitt (2002) training effectiveness framework describes the features of training environment, trainee characteristics and work environment that influences training motivation, actual learning, and transfer of training. For training to be considered effective, trainees must be ready to learn, be motivated to learn, must learn the contents of the training program and must transfer their training when they return to their job (Noe & Colquitt, 2002). After completion of training, it is expected that trainees would demonstrate increases in relevant cognitive, affective and motivational outcomes. Individual characteristics include trainability, personality, age, motivational and job or career attitudes (Noe & Colquitt, 2002). Motivation to learn can also be influenced by organizational factors including provision of opportunities for career planning, self-efficacy of trainees, and job involvement (Noe & Colquitt, 2002). Work environment characteristics include climate of the organisation, opportunity to perform, organisational justice and individual v team context (Noe & Colquitt, 2002). The trainees' perceptions of work environment characteristics influence the use of what they have learned.

2.2.2 Search Strategy

Using the SPIDER framework (Cooke et al. (2012), broad search terms were developed and applied to selected electronic databases. Table 2.1 shows the terms used in search strategy. A Lancaster University librarian assisted with the development of search strategy (**Appendix 1**: Full string of search terms and electronic database search results). Key search terms and Boolean operators were applied to selected databases to retrieve relevant literature. The following electronic databases were selected primarily due to their focus on healthcare literature: PsycInfo, Cinahl, Embase, Medline and Web of Science. Limits on each database include publications in English Language from 1990-2021 and limited to humans.

.

Table 2.1 Terms used in search strategy

Serious Mental illness AND	Physical health AND	Training and education AND	Staff
chronic mental illness or serious mental illness* or severe mental illness* or psychosis or schizophrenia or bipolar disorder or schizoaffective disorder or hypomania or mania	physical health or physical wellbeing or physical screening or physical activity or metabolic syndrome or diabetes or cardiovascular disease* or hypertension	need* or learning or education or training or seminar* or workshop* or continuing professional development or course*	nurse* or health worker* or health care assistant* or support worker* or manager* or instructor* or tutor* or trainer*).

Bibliographies and reference lists of eligible studies were searched to identify any relevant studies that might have been missed. Citation search was also carried out on the selected electronic databases to locate all articles that cited included studies. Handsearching of recent issues of key mental health care journals were undertaken to identify studies that may have been incorrectly indexed or not indexed on electronic databases. Handsearching of reference lists of included studies were also carried out.

2.2.3 Study eligibility

The inclusion and exclusion criteria are listed in table 2.

Table 2.2 Study eligibility inclusion and exclusion criteria

Inclusion Criteria	Exclusion Criteria
Types of studies: studies using qualitative approach, method or report qualitative findings. Mixed methods studies that report qualitative findings	Studies reporting only quantitative data Non-empirical studies/papers Non-English Language papers
Types of participants: Qualified mental health nursing staff and clinical support staff working in in-patients or outpatients. Managers of mental health nurses, and trainers in physical health care.	-General nurses in non-mental health settings.
Phenomenon of interest: training and education in physical health care. These may include one to one session, group sessions, face to face or online, supplementary written materials,	-Studies that report training only in mental health care

seminars, workshops, and continuing professional development programmes.	
Evaluation (Intended Outcomes): This includes the participants' views or perceptions of training needs, knowledge, skills, practice, confidence and attitudes	Studies that examine views of effectiveness in terms of patients' outcomes only.

2.2.4 Screening and selection of studies

Due to the use of multiple databases, duplicates were removed by reviewer Author 1 (**Appendix 1**- Full string of search terms and electronic database search results). One reviewer Author 1 screened the titles of all records in Endnote following de-duplication of records. The full texts of potentially relevant studies were read carefully, thoroughly by reviewer Author 1 and a decision made as to relevance using the criteria established a priori. Ten percent of the studies were screened independently by reviewers Author 2 and Author 3.

2.2.5 Data extraction and Management

Data extraction was completed using a data extraction form adapted from Booth et al. (2016) . An Excel spreadsheet was used to record pre-agreed information with reviewers Author 2 and Author 3 from each study. The data from the studies were mapped out on a word document and key elements were exported and populated on an

excel spreadsheet. The extracted data formed the basis of preliminary synthesis of study findings.

2.2.6 Assessment of quality of finally included studies

In narrative review, assessing quality of studies is important to inform the quality of the evidence base in the synthesis stage and also exploring the robustness of the synthesis (Halliday et al., 2021). Scoring for methodological rigor was undertaken using the Hawker et al. (2002) critical appraisal tool, but papers were not excluded based on quality alone. The Critical Appraisal Skills Programme (CASP) tool for qualitative studies published online by CASP (2018) UK was initially considered for critiquing qualitative studies. As the review also considers mixed methods studies that report qualitative findings, the tool developed by Hawker et al. (2002) was considered appropriate. Quality appraisal of studies was undertaken by Author 1, with ten percent of studies were appraised by Author 2 and third reviewer Author 3 was available for consultation or arbitration (if appropriate) where disagreements occurred. According to the tool, studies were categorised high (30-36), medium (24-29), and low quality (9-24). All the studies were rated high quality as they scored over 30. All the selected studies were included in the synthesis as they were rated high quality (methodological rigour) and importantly, provided relevance to the research question. The quality scoring tool, scoring guide and the results of the appraisal are contained in Appendix 2.

2.2.7 Synthesis method and utility of theoretical framework in the review

The results of the primary studies were synthesised in this review and includes excerpts of the raw data and interpretations of the authors' themes and narratives. Relevant sections of the findings of the papers were scrutinised line by line by reviewer Author 1 and codes noted. For studies examining perceived training effectiveness, a priori codes from Noe and Colquitt (2002) theoretical framework were used (deductively). There were some a priori concepts in the framework that were not supported by data from the studies. A consensus was reached amongst the reviewers (Author 1, Author 2 and Author 3) as to which a priori codes were not supported by the data, and these concepts were either not included as codes or combined. There was also new data from the studies that did not translate into pre-existing concepts from the framework. These new codes were agreed amongst the reviewers and added to the list of codes as they provided new insights. For studies exploring training needs, the codes were derived inductively from the data. The codes were organised and refined into broader themes and this process was carried out by Author 1 and independently checked by reviewers Author 2 and Author 3. This process is shown in tables in 2.4, 2.5, and 2.6**.**

2.3 Results

2.3.1 Search results

The final set of papers (n=11) that met the inclusion criteria were considered for coding and synthesis. This is illustrated in the PRISMA flow diagram (Figure 2.1) as suggested by Page et al. (2021).

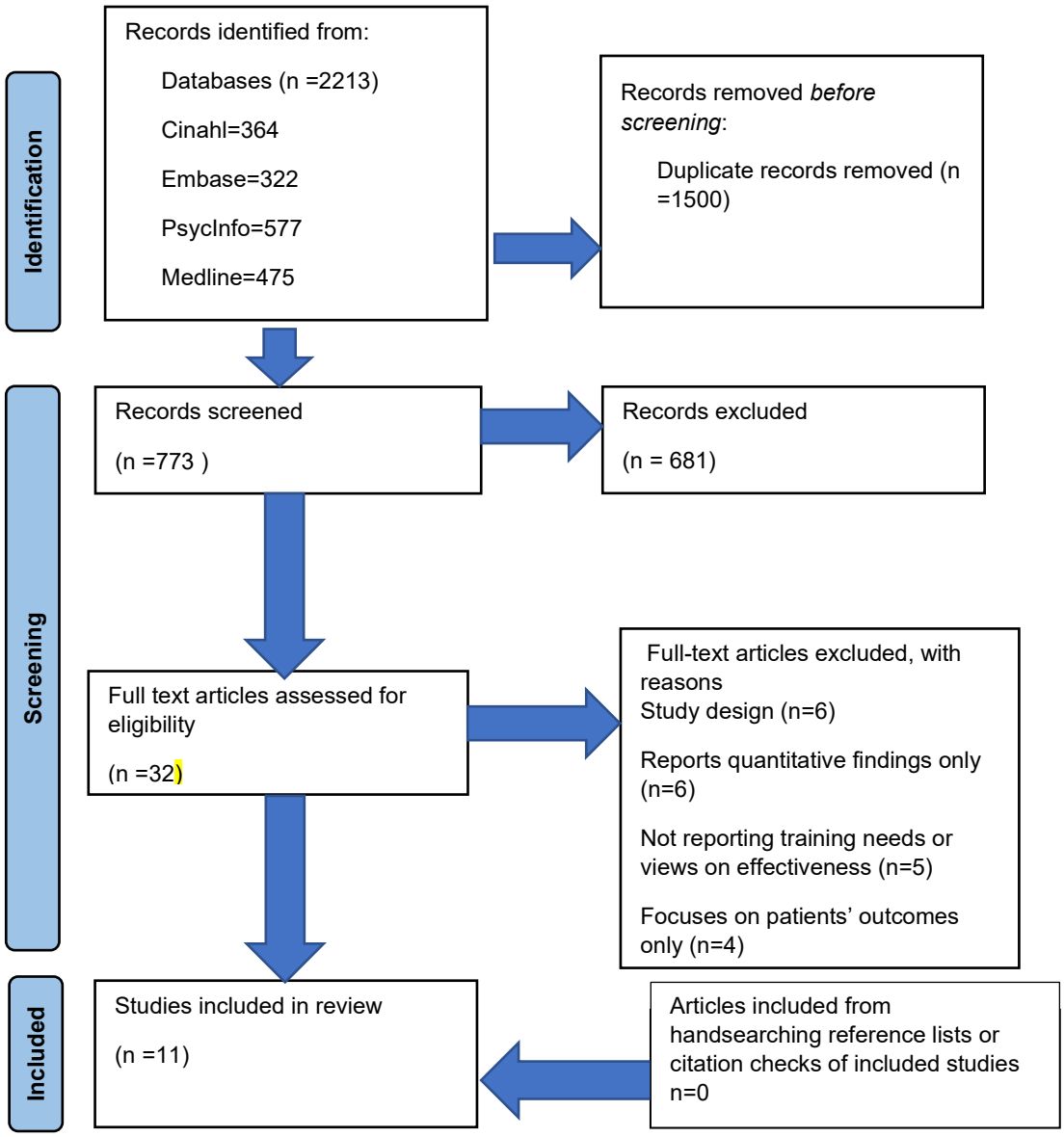

Figure 2.1: PRISMA Flow diagram of selection of studies

2.3.2 Preliminary findings (characteristics of included studies) and synthesis

Eleven studies were included in the synthesis (Table 2.3). Six of the studies were qualitative studies (Baker et al., 2014; Çelik Ince et al., 2018; Foster et al., 2013; Happell et al., 2013a, 2013b; Mwebe, 2017) and five were mixed methods studies with a qualitative component (Haddad et al., 2016; Lavelle et al., 2017; Sung et al., 2016; Terry & Cutter, 2013; Watkins et al., 2020).

Of the 11 studies, four were from the UK (Haddad et al., 2016; Lavelle et al., 2017; Mwebe, 2017; Terry & Cutter, 2013), five from Australia (Baker et al., 2014; Foster et al., 2013; Happell et al., 2013a, 2013b; Watkins et al., 2020), one from Taiwan (Sung et al., 2016) and one from Turkey (Çelik Ince et al., 2018). All the studies included participants who are mental health nurses. Two studies also included trainers (academic staff and clinician trainers) with experience in supporting mental health workers to use a physical health care program (Baker et al., 2014; Foster et al., 2013). One study also included mental health managers as participants (Watkins et al., 2020).

The settings where the studies were carried out include adult psychiatry clinics, inpatient acute and forensic mental health units, community mental health teams, rural health settings and university /academic settings. For the studies that reported gender, the percentage of female participants overall exceeded the percentage of male participants. Two qualitative studies reported only female participants (Baker et al., 2014; Çelik Ince et al., 2018). A mixed method study (Sung et al., 2016) had all female participants for the qualitative phase of the study. Ethnicity was not reported in any of the included studies.

For the studies that utilised educational interventions (Baker et al., 2014; Foster et al., 2013; Haddad et al., 2016; Lavelle et al., 2017; Sung et al., 2016; Terry & Cutter, 2013; Watkins et al., 2020) , there were variabilities in the mode, type, intensity and duration of the interventions. One study (Lavelle et al., 2017) provided a simulation based training and others provided a more comprehensive mix of sessions. Four were delivered via lectures and combined with interactive approaches including role play, case scenarios, reflection, videos, and group discussions (Foster et al., 2013; Sung et al., 2016; Terry & Cutter, 2013; Watkins et al., 2020). One training programme was delivered as a workshop (Watkins et al., 2020), two as a continuing professional development course in university (Foster et al., 2013; Terry & Cutter, 2013), and three educational sessions in clinical settings or hospitals (Baker et al., 2014; Haddad et al., 2016; Sung et al., 2016). The duration of the training was also variable including few hours, away day sessions and continuing professional development sessions of up to 4 months duration. The sessions varied in contents and focused on a variety of physical health care topics including physical health assessments, sexual health care training, diabetic, cardiovascular, metabolic training, epileptic and emergency resuscitations.

Table 2.3 Characteristics of included studies

Authors	Country	Design/Method	Participants/sample	Aims/focus	Description of intervention/Exposure	Themes/Findings	Quality Rating
Baker et al. 2014	Australia	Qualitative descriptive Interviews	Mental health nurses, rural health workers, trainers Setting: mental health clinics and rural working setting 6XF/0M	To explore the views of health workers who attended a self-management support program to facilitate physical health in mental health setting	Training program Flinders	Themes: disease management in relation to job role, challenges of co-ordination, putting self-management support into practice	32/36
Celik et al. (2018)	Turkey	Qualitative descriptive design	Mental health nurses in adult psychiatry clinics N=12 M=0 F=12 Range: 31-48 Mean=41.08±5.69	To explore needs, motivators, barriers, types of practices in physical health care and the role mental health nurses play in promoting physical healthcare	Routine practice (no exposure)	Themes: needs for better physical health care, motivators, barriers to physical healthcare, and physical health care practices.	32/36

Authors	Country	Design/Method	Participants/sample	Aims/focus	Description of intervention/Exposure	Themes/Findings	Quality Rating
Foster et al. 2013	Australia	Qualitative evaluation study Interviews Observations	Registered nurses (mental and general nurses) and academic staff N=9, 7M and 2F Age range=25-53 Setting: CPD Course University	To evaluate the delivery of comprehensive assessment provided to registered general and mental health nurses	CPD course on comprehensive health assessment (mental and physical health assessment). Duration=4 months	Three themes emerged from analysis: reconstructing speciality knowledge, integrating revised knowledge into practice and expanding practice	34/36
Haddad et al.2016	United Kingdom	Uncontrolled mixed methods with qualitative component Questionnaires Free text comments	Mental health nurses and health care assistants 36M (57%), 27F (27%) Setting: Forensic mental health unit	To evaluate the effect of training addressing physical monitoring and care on knowledge and attitudes of mental health staff and purposed built care plans	Physical health care education provided to healthcare staff Duration=Away day	Physical health care plans were s good idea but uptake limited due to other competing priorities and perceived need of extra support	32/36
Happell et al.2013a	Australia	Qualitative exploratory design Focus groups	Mental health nurses working in inpatient unit and community team. N=38	To ascertain nurses' views on their preparedness to provide physical health	Routine practice (no exposure)	Theme: The need for physical healthcare training, (b) modes of training, (c) access to training, and (d) organizational commitment.	34/36

Authors	Country	Design/Method	Participants/sample	Aims/focus	Description of intervention/Exposure	Themes/Findings	Quality Rating
				care and identified training needs			
Happell et al 2013b	Australia	Qualitative descriptive Focus groups	Qualified and unqualified mental health nurses, nurse educators Community and inpatient teams N=38) Focus groups	To explore nurses' views of the role of nurses for screening and monitoring in physical health care in patients with serious mental illness	Routine practice (no exposure)	Themes/findings: screening essential for good practice; the policy practice-gap; screening then what? And is HIP the answer?	34/36
Lavelle et al. 2017	United Kingdom	Mixed methods evaluation	Mental health nurses, psychiatrists, health care assistants, activity coordinators N=53	To evaluate simulation intervention training for managing medical deterioration in mental health settings	Eight half-day sessions delivered weekly across two psychiatric wards	five prominent themes: confidence; team working skills; communication skills; reflective practice; and personal responsibility.	32/36
Mwebe 2017	United Kingdom	Qualitative exploratory design	Mental health nurses working in in-patient unit and community team. N=10	To explore mental health nurses' views on their role in physical health	Routine practice (no exposure)	Themes: education and training needs; perceived barriers to physical health monitoring; features of current practice and	32/36

Authors	Country	Design/Method	Participants/sample	Aims/focus	Description of intervention/Exposure	Themes/Findings	Quality Rating
		Semi structured Interviews		care, preparedness for their role, and perceived education and training needs		strategies to improve physical health monitoring.	
Sung et al. 2016	Taiwan	Mixed methods study with qualitative component Focus groups Questionnaires	Registered nurses in a mental and community general hospital in Taiwan Stage 1 n=16, Stage 2 n=117 Stage 1: All female (N=16) Stage 2: Range=27 to 59 years	To evaluate effectiveness of a sexual healthcare training programme for clinical nurses with respect to knowledge, attitudes and self-efficacy	Stage 2=training program for sexual healthcare clinician trainers Stage 1: Nurses perceptions of sexual health training needs Stage 2: 16 hours over 17 Wks 1 Focus grps, 2=Questionnaires KSHC, ASHC and SESHC scales Stage 1: content analysis	Stage1: Themes-views and experiences dealing with sexual health care; training concerns and expectations	34/36
Terry & Cutter. 2013	United Kingdom	Mixed methods pilot study with qualitative component Focus groups Questionnaires	Mental health nurses and support workers attending a CPD course Setting =University	To explore participants' views of their confidence in addressing physical health	CPD course on physical health knowledge and delivery	Themes: identifying new knowledge, changing practice, need to increase physical health knowledge and skills	32/36

Authors	Country	Design/Method	Participants/sample	Aims/focus	Description of intervention/Exposure	Themes/Findings	Quality Rating
			N=15	care needs following attendance of a CPD course module			
Watkins et al. 2020	Australia	Mixed methods evaluation	Mental health nurses N=56 Setting: University workshop	To evaluate the effect of a 2 day metabolic workshop	2 day metabolic workshops to provide nurses with the skills to provide lifestyle interventions	Education on metabolic health care can be effective in improving the attitudes, confidence, and knowledge of mental health nursing in providing metabolic health care	32/36

2.4 Review findings and synthesis (exploring relationships in the data for studies utilising educational interventions)

The themes and codes derived from the pre-existing framework and service user factors (theme 5) based on data from the studies are discussed below. A summary of the themes and codes are presented in tables 2.4 and 2.5.

Table 2.4 Summary of themes and codes derived from the pre-existing framework

Theme	Definition of theme	Codes
1. Individual trainee characteristics	Individual factors that influence motivation, actual learning, transfer of learning and job performance	-Personality -Motivational and job or career attitudes
2. Work environment	Organisational factors that influence training and training effectiveness	-Work climate -Individual v team context
3. Learning outcomes	Represents perceived increases in relevant cognitive, motivational and affective outcomes by employees following training	-Cognitive outcomes -Motivational and affective outcomes

4. Transfer of training to job	Application of learned skills and capabilities on the job	-Learned capabilities and job performance

Table 2.5 Summary of new codes and themes based on data from studies

Broad Theme	Definition of Theme	Codes
Service user factors	-Barriers in integrating revised knowledge and skills into practice as being related to service user/patient	-Low motivation of service user -Service user mental state and capacity

2.4.1 Individual Characteristics

Personality. The experience, background, and abilities that trainees bring into the training was seen as crucial in influencing motivation, actual learning and transfer of learning (Foster et al., 2013; Lavelle et al., 2017; Watkins et al., 2020). A common perception was that working in mental health for so long has impacted motivation and skills for physical health care delivery and training (Foster et al., 2013; Terry & Cutter, 2013; Watkins et al., 2020). However, training enabled practitioners to reflect upon and integrate new knowledge into practice (Foster et al., 2013; Lavelle et al., 2017; Watkins et al., 2020):

> *"As time goes on, you become specialised and then you kind of stay there for a little bit, you plateau, you don't branch out…You need to branch out again and become more generalised*".

(p.158) (Foster et al., 2013).

Motivational attitudes and orientation. Trainees' motivational attitudes and orientations were of prime importance in training effectiveness. They were more likely to participate and learn if they perceive training outcomes as relevant to their roles and aligned with self-identified needs (Baker et al., 2014; Lavelle et al., 2017; Watkins et al., 2020). Feelings of increased personal responsibility were seen as positively influencing post training motivational outcomes (Lavelle et al., 2017; Watkins et al., 2020). One study described how the desire to be well-skilled in managing medical emergencies was perceived by trainees as being related to them seeking out training courses and update their skills (Lavelle et al., 2017).

> *"This training has prompted me to keep up with guidelines and procedures";*
> *"seek out other courses to update my skills"*
> (p.18) (Lavelle et al., 2017).

2.4.2 Work environment

Climate. Work climate refers to perceptions of characteristics of work environment that influence learning and transfer of learning (Noe & Colquitt, 2002). The work climate featured in a majority of papers as a prime influencing factor in the use of what has been learnt in training (Baker et al., 2014; Foster et al., 2013; Haddad et al., 2016; Lavelle et al., 2017; Terry & Cutter, 2013; Watkins et al., 2020). Excessive workload, time constraints and inadequate resources were perceived as organisational barriers affecting the use of what has been learnt during training (Baker et al., 2014; Foster et al., 2013; Haddad et al., 2016; Lavelle et al., 2017; Terry & Cutter, 2013; Watkins et al., 2020).

> "*I can't even get a set of scales and tools to document data. We don't have a form to record metabolic monitoring"*
>
> (p.928) (Watkins et al., 2020)

Organisational culture was seen as a crucial influencing factor and organisational change was perceived as instrumental if training could be successfully and fully implemented (Baker et al., 2014; Haddad et al., 2016; Lavelle et al., 2017). Additional support and leadership from management were cited as vital for transferring knowledge and skills from training (Foster et al., 2013; Haddad et al., 2016; Lavelle et al., 2017). However, challenges or barriers were not entirely insurmountable, and training could still be integrated where job structures prevented standard use of training (Baker et al., 2014; Lavelle et al., 2017; Watkins et al., 2020).:

> *"There's been few people that we haven't been able to use the Flinders program with, and even then, we've still been able to use components"*
>
> (p.562) (Baker et al., 2014)

Individual v team context. A recurrent theme in the reviewed studies is a sense of shifting the focus away from individual performance to overall team-based work (Baker et al., 2014; Lavelle et al., 2017; Watkins et al., 2020). Individuals may correctly apply learned skills yet may be unsuccessful as team contribution is required to succeed. Greater awareness of colleagues' capabilities and professional roles and improved team working were attributed to the success of training (Baker et al., 2014; Lavelle et al., 2017; Watkins et al., 2020):

"Since completing the training, I have become more mindful of the complexity of team working in healthcare, better understanding of working with staff from different backgrounds"

(p.16) (Lavelle et al., 2017).

However, even though a whole team approach was ideal, this was seen as not easily achievable and lack of motivation of team members was cited as a barrier (Baker et al., 2014; Lavelle et al., 2017; Watkins et al., 2020).

"You want to have a team that can actually support this program, as opposed to one person that's holding and propping it up"

(p.562) (Baker et al., 2014)

2.4.3 Direct learning outcomes

Cognitive outcomes. Cognitive outcomes refer to relevant improvements in trainee participants' knowledge, awareness and ability following training (Noe & Colquitt, 2002). Most studies described perceived increases in cognitive outcomes with regards to benefits of receiving training (Baker et al., 2014; Foster et al., 2013; Haddad et al., 2016; Lavelle et al., 2017; Terry & Cutter, 2013; Watkins et al., 2020). Studies reported improved understanding of good communication and team working skills in high pressured and challenging situations (Foster et al., 2013; Lavelle et al., 2017), broader understanding and knowledge of subject matter discussed in training (Baker et al., 2014; Foster et al., 2013; Haddad et al., 2016; Terry

& Cutter, 2013; Watkins et al., 2020), and ability to reconstruct existing knowledge to incorporate revised knowledge (Foster et al., 2013; Watkins et al., 2020) .

> *"I am more aware of my own communication with others and the important role this plays in teams; 'I understand that communication can be a barrier to good teamwork"*
> (p.17) (Lavelle et al., 2017)

However, a consistent view is that despite improvement in cognitive outcomes, organisational constraints posed challenges in applying new knowledge (Baker et al., 2014; Foster et al., 2013; Haddad et al., 2016; Lavelle et al., 2017; Sung et al., 2016; Terry & Cutter, 2013; Watkins et al., 2020).

Affective and motivational outcomes. Affective and motivational outcomes refer to perceived improvements in confidence and motivations as a result of training (Noe & Colquitt, 2002). Studies reported perceived increase in confidence to respond to physical health needs of service users in challenging situations and engaging with colleagues more authoritatively as a result of revised knowledge (Baker et al., 2014; Foster et al., 2013; Lavelle et al., 2017; Watkins et al., 2020). Improved confidence to execute specific skills learned during training and confidence in teamworking was cited in the reviewed studies (Baker et al., 2014; Lavelle et al., 2017; Watkins et al., 2020)

> *"the training has boosted my confidence in managing a pressurised medical emergency on the triage ward; I feel more confident working as a team and following instructions"*
> (p.15-16) (Lavelle et al., 2017).

2.4.5 Transfer of training to job

Learned capabilities and job performance. Transfer of training refers to the application of learned capabilities on the job and this can be generalisation and//or maintenance (Noe & Colquitt, 2002). A recurrent theme in the reviewed studies is the perception that revised knowledge from training enhances clinical practice and physical health care assessment and delivery (Baker et al., 2014; Foster et al., 2013; Haddad et al., 2016; Lavelle et al., 2017; Watkins et al., 2020). Individuals across studies described incorporating their revised knowledge on physical health care into everyday practice influencing their clinical judgements (Baker et al., 2014; Foster et al., 2013; Lavelle et al., 2017; Watkins et al., 2020) , using revised knowledge to influence other members of the multi-disciplinary team (Baker et al., 2014; Lavelle et al., 2017), and improved practice in a variety of ways including improved equipment checking procedures, improved labelling of green bags and refinement to ward policies (Lavelle et al., 2017)

> *"I personally and professionally have tried really hard to have a lot of transfer out of the course and into the clinic."*
> (p.160) (Foster et al., 2013)

.

Studies revealed concerns about the challenges of applying integrated knowledge into practice settings (Baker et al., 2014; Foster et al., 2013; Haddad et al., 2016; Lavelle et al., 2017). Studies highlighted barriers (previously discussed) to the implementation of integrated knowledge into practice. One study reported trainers views about the need for a philosophy that is aligned with holistic care approach and trainers' focus on their speciality area as potential barrier (Foster et al., 2013)

2.4.6 Service User Factors

Low motivation. Low motivation of service users was identified as a barrier to integrating revised or new knowledge into practice (Foster et al., 2013; Haddad et al., 2016; Watkins et al., 2020) . This was related to service users being unwilling or disinterested to talk about their metabolic health (Watkins et al., 2020), ambivalence towards lifestyle change (Foster et al., 2013; Haddad et al., 2016; Watkins et al., 2020), service users finding physical health assessment intrusive, nagging and bothersome (Foster et al., 2013; Haddad et al., 2016) and difficulties encouraging service users to modify lifestyle (Foster et al., 2013; Haddad et al., 2016; Watkins et al., 2020). This was related to considerable time required to complete assessment or paperwork, cultural differences in service users, language barriers and environmental constraints including lack of suitable space.

> *"We work so hard to have a welcoming, friendly, safe, comfortable environment, and I think that sometimes asking for a physical health assessment totally opposes that"*
> (p.159) (Foster et al., 2013).

Service user mental state and capacity. Challenges in implementing newly acquired knowledge relating to service user capacity and mental state were noted in the reviewed studies (Foster et al., 2013; Watkins et al., 2020). This was related to service users not always reliably recalling their health history which was sometimes age dependent (Foster et al., 2013) , acuity and severity of service users mental state (Watkins et al., 2020).

"some people were too acutely unwell or didn't have insight into their poor physical health"

(p.928) (Watkins et al., 2020).

2.5 Exploring relationships in the data for studies exploring views on training needs

A summary of themes and codes of training needs (all derived inductively) are discussed below.

Table 2.6 Summary of themes and codes based on data from studies

Broad Theme	Definition of Theme	Codes
1. Need for physical health care training	-Need to overcome gap in knowledge and skills in physical health care	-Level of training needs -Types of training needs
2-Modality of training	Ways in which training is done and challenges	-Structure and delivery options -Challenges of delivery options
3-Oranisational and health care factors	-Organisational context and health care systems that dictates healthcare priorities	-Organisational commitment -Health care systems

2.5.1 Knowledge and skills requirements

A consistent theme in the reviewed studies is a sense amongst participants that their knowledge and skills in physical health care were insufficient and there is a need to overcome this gap (Çelik Ince et al., 2018; Happell et al., 2013a; Happell, Scott, et al., 2013a; Mwebe, 2017). Nurses with a generalist background perceived that they were better equipped with the knowledge and skills to provide physical healthcare whereas those who had specialised in mental health nursing from the outset felt that they needed ongoing learning to develop competencies in physical healthcare (Çelik Ince et al., 2018; Happell et al., 2013a; Happell, Scott, et al., 2013b; Mwebe, 2017). However, irrespective of the nurses' background, the need for ongoing learning to cement practice was frequently cited (Çelik Ince et al., 2018; Happell et al., 2013b; Happell, Scott, et al., 2013a; Mwebe, 2017).

> *"I attended an update three years ago, I think; I am not sure whether there have been any further update in the last year"*
> (p.3073) (Mwebe, 2017)

Given variability in knowledge and skills across mental health nursing group, clinicians identifying specific domains or skills and knowledge they require training on was seen as important (Happell et al., 2013a; Happell, Scott, et al., 2013c; Mwebe, 2017). Improving knowledge of conditions like diabetes and cardiovascular disease were cited as important (Çelik Ince et al., 2018; Happell et al., 2013a, 2013b) and having basic skills in physical health checks including use of manual blood pressure machines, measurements and screening was underscored (Çelik Ince et al., 2018; Happell et al., 2013a; Happell, Scott, et al., 2013c; Mwebe, 2017) . One study emphasised the need for training that focuses on knowledge that

enhances the provision of education to patients, addresses sexual health concerns caused by medical conditions and improving communication skills to address sexual health problems of patients (Sung et al., 2016).

> *"I hope the training program will focus on skills for dealing with sexual concerns, assessment and communication"*
> (p.2994*)* (Sung et al., 2016)

2.5.2 Modality of training

The need for flexibility in the development and delivery of physical health care training was seen as crucial to success in training provision (Çelik Ince et al., 2018; Happell et al., 2013a; Happell, Scott, et al., 2013b; Mwebe, 2017). Structured training was seen as desirable for certain topics involving the utilisation of skills whereas less structured approach was a positive delivery option for topics that are not directly linked to the application of skills (Happell, Scott, et al., 2013a, 2013b). Face to face and hands on training was generally favoured and suggested that on-line delivery should be considered as an addition but not a replacement to face to face training (Happell et al., 2013a).

> *"I think it needs some structure especially if….the training is going to be aimed at nurses providing a physical health assessment…you need a set pattern…you do this, you do that, something that's a bit formulated".*
> (p.213) (Happell, Scott, et al., 2013a)

Irrespective of the mode of delivery, the nature of the care environment was seen as a serious challenge in the delivery and accessibility of training program (Happell et al., 2013a; Happell, Scott, et al., 2013b; Mwebe, 2017) and this may be related to difficulty releasing staff from direct care to attend training, time constraints and uncertain events (Happell et al., 2013a, 2013b).

> *"It's not that they don't want to do it, they honestly don't have the time. We just don't".*
>
> (p.2291) (Happell, Scott, et al., 2013b)

2.5.3 Service and healthcare factors

The importance of organisational support and healthcare systems was evident in the reviewed studies (Çelik Ince et al., 2018; Happell, Scott, et al., 2013a; Mwebe, 2017). Mental health nurses revealed concerns about the healthcare system in their institutions (Çelik Ince et al., 2018; Happell et al., 2013a; Happell, Scott, et al., 2013c; Mwebe, 2017) and was mainly related to excessive workload, staff shortages and physical health not being prioritised (Çelik Ince et al., 2018; Mwebe, 2017). Embedding physical health screening and monitoring practices into the culture via training was seen as vital but challenging due to economic constraints and pressures outside the local services that may shape the priority of healthcare service (Çelik Ince et al., 2018; Happell et al., 2013b).

> *"So priority change, funding models change, and I think that's just what we deal with. So it's about local services, but it's higher than that…..so you can*

train all you like, but unless there's real impetus and drive from above, then it just goes"

(p.2291) (Happell et al., 2013b)

2.6 Discussion

Discussion of main review findings and results

The findings of the review have shown that training in physical health care may result in perceived improvement in cognitive and affective outcomes, such as knowledge, awareness, and confidence. Training also results in staff incorporating their revised knowledge on physical health care into daily practice influencing their clinical judgements, influencing other members of the multidisciplinary team and directly improving clinical practice in many ways. Despite perceived increases in knowledge and confidence, acquisition of facts alone does not guarantee transfer into practice.

The synthesis highlights an area of concern in terms of organisational barriers, culture and resource constraints. The results show that challenges in the provision of physical health care by mental health nurses are related to perceived barriers in physical health monitoring including resource allocation, local culture, staff attitude and perceived lack of education and training to engage in physical health care practice. This finding is consistent with other literature on training evaluation (Geoffrey L Dickens et al., 2019; G. L. Dickens et al., 2019; Hennessy & Cocoman, 2018; Tyler et al., 2019) which found that education and training in physical health care for mental health nurses does not mean direct translation into practice

and highlighted organisational culture, lack of motivation and understanding from colleagues as potential barriers.

The experiences of key stakeholders in this review are congruent with results of other studies (Chou & Tseng, 2020; Derblom et al., 2022; McIntosh, 2021; Mulhearne et al., 2021) amongst general nurses in emergency departments caring for patients with mental illness which showed that participants felt that time constraint in their departments was not conducive to cater for emotional needs of patients and undermines therapeutic rapport with patients. Environmental influences and lack of knowledge and training amongst emergency department general nurses about mental health conditions, assessments and recovery model often resulted in suboptimal care (Chou & Tseng, 2020; McIntosh, 2021). The care environments in emergency departments were often fast paced and characteristically hectic and high stimulus (Chou & Tseng, 2020; Derblom et al., 2022; McIntosh, 2021), there was lack of provision for quiet space and room for assessment and caring (Derblom et al., 2022; Ryan et al., 2021), and general nurses lacked knowledge about recovery model and have negative perceptions and stereotype views about mental health patients (Chou & Tseng, 2020; McIntosh, 2021).

The results of this synthesis provide another perspective in terms of understanding the influence of service user factors in training effectiveness in mental health settings. Some service users found physical health assessment bothersome and intrusive, thus highlighting the importance of considering service user factors (motivation and acuity of mental state) in designing and implementing of future training and facilitating an enabling environment for delivery of physical health assessment, monitoring and delivery. The Noe and Colquitt (2002) training effectiveness theoretical framework could be further developed or extended

for mental health settings to include such service user factors (motivation and acuity of mental state) as it lacked the depth to explain all the data in the reviewed studies.

Mental health nurse pre-registration education has traditionally lacked a strong physical health component in many jurisdictions. There is perception amongst mental health nurses that they have inadequate theoretical knowledge or clinical experience in the care and treatment of physical health issues. There is a need for further training and support (Opusunju et al., 2022). There have been moves in some jurisdictions to address standards in pre-registration education to ensure nurses are equipped with sufficient skills to enable them to work across a variety of settings (Nursing and Midwifery Council, 2018) . Other countries like Australia have long adopted a more generic approach towards pre-registration nurse education that is designed to prepare nurses to work across a wide range of health care settings (Connell et al., 2022; Hurley & Lakeman, 2021). However, critics of the move towards a more generic model of nurse education argue that practice will be favoured towards adult nursing at the expense of other fields and resulting in lower levels of knowledge and skills in mental health nursing (Connell et al., 2022)

Irrespective of the current system of educational preparation, there is a perception amongst mental health nurses that they do not have the competencies and skills to adequately and competently address the physical health care of people with serious mental illness (Opusunju et al., 2022). This is comparable with the synthesis findings that despite current mental health nurse pre-registration education, the education fails to adequately prepare nurses to competently perform their roles in delivering physical health care and there is a need for ongoing learning or continuing professional education in physical health care to improve practice. Health Education England (2022) strongly recommended continuing professional

development so that nurses have time and access to high quality evidence-based training and develop core skills to practice in variety of settings and in direct response to the comprehensive needs including physical health of patients.

2.7 Robustness of the synthesis (strengths and limitations)

One reviewer Author 1 conducted the search, and a comprehensive search strategy and approach was undertaken to minimise the possibility of relevant studies being missed. Three reviewers were involved in the screening process for selection of relevant studies against pre-determined criteria, quality appraisal and analysis enhancing credibility of the findings. The inclusion of studies using mainly qualitative methods and others using mixed method with qualitative component may have implications for synthesis findings. Studies were included that used interpretative descriptive analysis which were different to studies that used focus groups and incident reporting. However, it is important to note that there were commonalities in findings despite sometimes different approaches or methods. used. Quality assessment of studies was also undertaken using a validated tool and all studies rated highly.

It is not known what influence gender may have had on synthesis findings due to lack of details on possible influence in the studies as female participants were over-represented in the included studies. It was also difficult to assess what influence other key demographic characteristics such as ethnicity had on synthesis findings due to lack of level of details in the studies. None of the studies reported ethnicity of participants. Most of the studies were undertaken overseas, and it was not possible to assess the possible impact difference in culture and settings had on study findings.

This synthesis is the only known qualitative synthesis of primary studies, and this is important in understanding not only if training works but why and how it works. It provides a unique perspective as it uses a theoretical framework to explore perceived effectiveness of training. Utilising theory in a review process is useful in developing insight and understanding of reviewer and reader as to the applicability of a review in practice (Dunleavy et al., 2018).

2.8 Conclusion

Training in physical health care for mental health nurses is important to upskill mental health nurses and to reduce physical health inequalities experienced by patients with serious mental illness. For training to be successful, it is important to understand how and why training works. The findings of this review help to understand the training needs of mental health nurses in a variety of settings and the importance of individual characteristics, training environment and work environment in determining the success of training.

2.8.1 Implications for research

Gaps were identified in the literature. Most of the qualitative and mixed methods studies utilised descriptive designs lacking depth and warranting further exploration. Most of the studies focused solely on mental health nurses' perspectives and did not consider views of other key stakeholders. More studies are required with designs that provide in-depth exploration including phenomenological approaches and include trainers and managers of mental health nurses as participants.

Future studies to explore any possible influence of sociodemographic characteristics including gender and ethnicity on experiences of providing physical health care. Future directions for learning and research to also explore experiential learning component through the experiences of providing and supporting physical health care in mental health settings. Incorporating experiential learning with formal training through prolonged one to one experiences and meaningful relationships results in much more positive outcomes including improved attitudes and building of better relationships with service users (Goldman & Trommer, 2019)

2.8.2 Relevance for clinical practice

Policy makers and managers need to prioritise the physical health needs of patients and upskill mental health nurses as they play vital role in provision of physical health care. There should be more focus on individual and organisational factors that influence training effectiveness as opposed to the design features including content and delivery of training being prioritised. To foster therapeutic alliance with service users, it is important that mental health nurses practice with awareness of cultural sensitivities, time management and given the nature of the care environment identify calm and suitable places for physical health assessments.

Chapter 3. Methodology and methods

3.1 Introduction

The aim of this study is to explore the experiences and perceptions of mental health nurses, managers of mental health nurses and trainers in relation to physical health care of patients with serious mental illness and training in physical health care provided to in-patient mental health nurses. In this chapter, my philosophical and epistemological positioning in relation to the empirical research are described. The rationale for selecting a design based on reflexive thematic analysis underpinned by hermeneutical phenomenological epistemology is explored. The data collection methods and analysis using Braun & Clarke's (2019) reflexive thematic analysis are detailed in the methods section. The actions taken to address quality, rigor and ethical considerations are also outlined in the methods section.

3.2 Research questions

1) What are the experiences and perceptions of key stakeholders about the care given to people with serious mental illness who have physical healthcare needs?
2) What are the experiences and perceptions of key stakeholders about the training provided to mental health nurses to enable them to provide care to people with serious mental illness who have physical healthcare needs?

Key stakeholders in this study are acute in-patient mental health nurses, the managers of mental health nurses and trainers in physical health care.

3.2.1 Objectives

a. To explore the experiences of mental health nurses when providing physical health care for patients with serious mental illness

b. To explore the perceptions and experiences of mental health nurses who have undertaken physical health care training and how this has prepared them for their role in providing physical health care.

c. To explore mental health nurses' perceptions and understanding of training needs, training effectiveness, their satisfaction with training and its relevance to their practice.

d. To explore mental health nurses' perceptions and understanding of the influence of training on their knowledge, confidence, and skills.

e. To explore trainers' and managers' experiences and perceptions of supporting and providing training in physical health care to mental health nurses.

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3.3 Qualitative approach and theoretical underpinnings of this study

3.3.2 Qualitative approach and philosophical positioning

As the aim of the study is to explore the perceptions and experiences of individuals with different responsibilities in providing and supporting physical health care and training to mental health nurses, a qualitative approach was deemed suitable as it enables individuals to make sense of what is going on around them, reporting of multiple realities and offering different perspectives from each individual about a phenomenon (Bahari, 2010; Crotty, 1998). Qualitative research is concerned with how people describe their own experiences, the meaning they ascribe to their own experiences and how they construct their worlds and worldviews (Kamal, 2019). Positivism is based on the belief that reality is objective, quantifiable, unchanging and there is one single truth or reality (Alharahsheh & Pius, 2020; Kamal, 2019). Quantitative approaches which negate human subjectivity through strictly

controlled data collection and analysis methods and based on the tenets of reductionism and empiricism were not suitable to the aims of the research (Reiners, 2012)..

Research philosophy is fundamental to research as it relates to the nature and development of knowledge and it makes key assumptions explicit about how one views or observes the social world (Bahari, 2010). It is concerned with ontology and epistemology which can have key distinctions and are important considerations that influence research design and methods during the research process (Al-Ababneh, 2020; Bahari, 2010). Ontology refers to what we believe about reality, the nature of existence and what can be known about it (Crotty, 1998; Rehman & Alharthi, 2016). Epistemology is about the theory and nature of knowledge and what can be considered as acceptable knowledge in a particular discipline (Al-Ababneh, 2020; Bahari, 2010; Crotty, 1998). A researcher's choice of epistemological position is influenced by their individual life experiences and understanding of the world (Darlaston-Jones, 2007). The worldviews and personal experiences of researchers also influence the choices between different research approaches (Creswell & Plano Clark, 2017).

My professional and work experience has shaped and influenced my worldview about reality and nature of knowledge. My role as mental health professional involves supporting recovery of patients using a recovery-oriented approach. A recovery approach values human subjective experience and understanding a person's unique experience is key in making sense of how individual experience influence everyday life (Hummelvoll et al., 2015; Le Boutillier et al., 2011; Le Boutillier et al., 2015). Recovery is a patient centered approach that is based on respect and recognition of knowledge embedded in the experiences of patients, carers and professionals (Hummelvoll et al., 2015). It is about a person reclaiming and maintaining

control over life situations and about supporting individuals to make informed decisions and taking responsibility for choices made (Hummelvoll et al., 2015; Le Boutillier et al., 2015). The recovery model identifies both internal and external conditions that may facilitate recovery (Chester et al., 2016; Jacobson & Greenley, 2001). These conditions may differ for patients and it is a combination of these conditions that may influence recovery (Chester et al., 2016; Jacobson & Greenley, 2001).

Internal conditions are concerned with hope about the future, healing,, empowerment, and connection (Jacobson & Greenley, 2001). External conditions relate to individual circumstances, opportunities, events, policies and practices that may promote recovery (Jacobson & Greenley, 2001). Social inclusion is fundamental to recovery and may include access to support networks, family and friends, health care services, housing, community involvement, employment and welfare (Hummelvoll et al., 2015; Huxley & Thornicroft, 2003). My work involves holistic assessment of service users' needs (bio and psychosocial needs) to develop individualised care plans and interventions which may entail listening to individual stories, delving into personal and worldviews of patients. Physical health care plays an important role in the personal recovery process as mental and physical health care are interconnected. A recovery-oriented approach integrates physical health assessments, interventions including lifestyle modifications such as nutritional counselling, stress management, managing physical health conditions, smoking cessation to promote overall well-being (NIHR, 2023). Addressing mental health alongside physical health can result in better overall health outcomes (NIHR, 2023) . My work entails supporting patients to own and determine how to overcome challenges associated with their mental illness and direction of their own individual recovery journey (Le Boutillier et al., 2011; Le Boutillier et al., 2015). An individualised approach to care planning supports the view that reality for patients is

relative, subjective and multiple meanings of their experiences are possible aligning with the ontological and epistemological assumptions of interpretivist paradigm.

This research is informed by the interpretivist paradigm which reflects my worldview. The aim of the research is to explore the experiences and perceptions of key stakeholders in relation to the physical health care provided to patients with serious mental illness and training in physical health care provided to mental health nurses. A paradigm is a way of viewing and making sense of the world, a set of beliefs that guides action and influences how researchers think about a topic (Al-Ababneh, 2020). Interpretivism was developed through critique of positivism and presumed that reality was not fixed and based on individual and subjective realities (Reiners, 2012). The interpretivist approach assumes a relativist ontology in which reality is perceived through intersubjectivity, changing realities and multiple socially constructed realities are built between the researcher and participants (Alharahsheh & Pius, 2020; Bryman, 2016; Rehman & Alharthi, 2016). Epistemology is the theory of knowledge and how the researcher is aiming to uncover knowledge to reach reality (Al-Ababneh, 2020; Alharahsheh & Pius, 2020). In interpretivist paradigm, many interpretations of the world are generated between researchers and participants, and meanings could be influenced by socio-cultural factors including gender, race, social status, cultural values and prior knowledge and experience (Kamal, 2019). In interpretivism, knowledge is socially and culturally produced based on understanding the world of the participants with emphasis on their meanings and interpretations (Bryman, 2008; Ormston et al., 2013). There is also acceptance that different researchers may bring different perspectives to the same issue. Interpretive epistemology is subjective and the goal is to understand the interpretations of individuals about the social phenomena they interact with, unlike positivism in which the

researcher acts as an objective observer to study a phenomenon and completely detached from what is being observed (Grix, 2010; Rehman & Alharthi, 2016).

3.3.3 Qualitative interview study using Braun & Clarke's (2019) reflexive thematic analysis underpinned by hermeneutical phenomenological epistemology

In this qualitative interview study, Braun & Clarke's (2019) reflexive thematic analysis was applied. Reflexive thematic analysis is regarded as a method for the analysis of qualitative data (analytic method) that focuses on developing and reporting themes from qualitative data. It is not seen as a methodology (Braun & Clarke, 2024; Braun et al., 2019). Reflexive thematic analysis offers qualitative researchers flexibility. Its flexibility stems from the fact that it is an analytic method rather than a methodology (Braun & Clarke, 2022a). The goal of reflexive thematic analysis is to provide a compelling interpretation of the data. The researcher interprets data through a lens that reflects their theoretical and philosophical assumptions, cultural membership, and knowledge and values (Braun & Clarke, 2022b; Braun et al., 2019; Trainor & Bundon, 2020). Braun & Clarke's six-stage process of conducting reflexive thematic analysis includes familiarisation with the data, coding, generating initial themes, reviewing themes, defining and naming themes, and writing up (Braun & Clarke, 2019a, 2021a, 2022b).

Braun and Clarke's (2019a) reflexive thematic analysis is not atheoretical and it is important for researchers to locate their overall theoretical framework. Reflexive thematic analysis reflects theoretically based assumptions about how knowledge is produced, aligns with qualitative paradigms (Braun & Clarke, 2022a). Reflexive thematic analysis is congruent with the underlying theoretical and philosophical assumptions of this study (Interpretivism) and hermeneutical phenomenological epistemology. Reflexive thematic analysis is epistemologically and theoretically flexible and as an analytic approach has a qualitative

orientation which relates meaning as contextual, researcher subjectivity as key and a resource, and realities as multiple (Braun & Clarke, 2021a; Campbell et al., 2021). It is congruent with many types of interpretive frameworks ranging from phenomenological to critical constructionist with the potential to address a variety of research questions (Braun et al., 2019; Risan et al., 2018; Sagen et al., 2013).

Other types of thematic analysis were considered but did not align with the research goals, question, objectives, and researcher's philosophical stance. Coding reliability approaches to thematic analysis share some values with quantitative research in terms of reliability and replicability of observation (Braun & Clarke, 2022b; Braun et al., 2019). With coding reliability approaches, coding is guided by a codebook/coding framework which allows the researcher to categorise data into pre-determined themes and identification of codes/themes is usually based on consensus amongst multiple coders (Braun & Clarke, 2022b; Braun et al., 2019; Byrne, 2022). Another approach to thematic analysis is codebook thematic analysis which sits at the midpoint between coding reliability approaches and reflexive thematic analysis and uses predetermined themes in advance of full analysis and themes conceptualised as domain summaries (Braun et al., 2019; Byrne, 2022). Reflexive thematic analysis is conceptualised as a fully qualitative approach which is aligned with the epistemological positioning of this study. The other two approaches are seen as 'partially qualitative' as they share values with quantitative researchers for instance the importance of reliability and replicability of observations which are incompatible with the values of fully qualitative paradigms and hence not closely aligned with the epistemological positioning of present study (Braun et al., 2019).

3.3.4 Phenomenology as a research paradigm

Phenomenology as a term is used in various ways such as phenomenological paradigm, phenomenological approach, phenomenological method, and phenomenological research design (Lopez & Willis, 2004; Nakayama, 1994; Sloan & Bowe, 2014). In the context of this research, the term phenomenology is used to describe a paradigm and not to infer a particular research design (Nakayama, 1994). As a paradigm, phenomenology shapes how researchers view the world, the nature of knowledge and the lens to interpret experiences. Phenomenology as a qualitative research paradigm focuses on exploring and understanding individual experiences as described and understood by people who have lived through the phenomena such as caring and healing (Wojnar & Swanson, 2007).

Heidegger's philosophy of phenomenology (hermeneutical phenomenology) considers that it is impossible to negate our personal experiences in relation to the phenomena under study as he believes that personal awareness is fundamental to phenomenological research (Reiners, 2012). Hermeneutical phenomenology embraces the inclusion of the researcher's experience in the process of data collection and analysis (Ankers et al., 2018; Cope & Alberti, 2020; D'Souza, 2019). Heidegger sought to answer the question of being and believed that human beings are hermeneutic/interpretive beings capable of finding importance and meaning in their own lives (Wojnar & Swanson, 2007). Heideggerian phenomenology is based on the belief that both researcher and participants undertake a research with forestructures of understanding that is shaped by their individual background and in their interaction and interpretation to co-produce an in-depth knowledge of the phenomenon of interest (Patton, 2020; Wojnar & Swanson, 2007). This was an important consideration in present study as the

researcher is a mental health nurse with experience of providing physical health care in acute mental health settings and has received post registration training in physical health care.

3.4 Research Methods

3.4.1 Design

A qualitative study exploring key stakeholders' experiences and perceptions of the care given to patients with mental illness with physical health comorbidities and training provided to mental health nurses to address physical health care needs. Interpretivist paradigm lens underpinned the study with knowledge and interpretation generated between participants and researchers based on contextual factors. The design is an interview-based study using reflexive thematic analysis (Braun & Clarke, 2019b, 2021a, 2024) underpinned by hermeneutical-phenomenological epistemology. Reflexive Thematic Analysis Reporting Guidelines (RTARG) was used to guide the reporting of reflexive thematic analysis in this study (Braun & Clarke, 2024).

Other qualitative design approaches were considered such as narrative, grounded theory and ethnography but did not closely align with the research aims, objectives, questions, and epistemological positioning of the study. In narrative research, the researcher makes inquiries about the lives of participants and this story is retold by the researcher (Creswell & Plano Clark, 2017). Making inquiries about the lives of participants was not an objective of this study. Grounded theory is a qualitative design approach in which the researcher derives a theory that is grounded in the views of subjects taking part in the research (Creswell & Plano Clark, 2017). This was not an objective of the study. Ethnographic research is concerned with extensive involvement in the social lives of participants and the researcher immerses themselves in a group observing, listening and asking questions (Bryman, 2016). This was

not an objective of the proposed study and hence this approach was not warranted. A design based on reflexive thematic analysis underpinned by hermeneutical phenomenological epistemology was more suited for the research aims, objectives and philosophical positioning of this research.

3.4.2 Population

The following groups of in-patient mental health staff were eligible for participation.

a) - in-patient mental health nursing staff (registered mental health nurses, registered nursing associates and non-registered health care assistants).
b) - managers of mental health nursing staff providing clinical leadership and experience in supporting in-patient staff (ward managers and modern matrons)
c) - practitioners that provided training in physical health care and support to in-patient mental health nursing staff [practice development nurses, physical health care in mental health nurses (RGN)]

The inclusion and exclusion criteria are described in table 3.1

Table 3.1 Inclusion and Exclusion criteria of study participants

Inclusion criteria	**Exclusion criteria**
Mental health nurses (registered mental health nurses, registered nursing associates and non-registered health care assistants) working as in-patient staff. Eligible	-Other groups of mental health staff including psychiatrists, occupational therapists and psychologists.

participants must have had at least six months experience in their role and received training in physical health care. OR	- Pre-registration nursing students on placement -Community psychiatric nurses
Managers of mental health nurses (including ward managers, modern matrons, quality and governance managers). Eligible participants must have had at least six months experience in supporting mental health nurses in their role and upskilling of nurses. OR	
Trainers or instructors in physical health care. These include practice development nurses and general nurses working in mental health acute settings providing training and support to mental health nurses. Eligible participants must have had at least six months experience of providing physical health care training or education to mental health nurses.	

3.4.3 Setting

The study was carried out in a Mental Health NHS Foundation Trust in England and participants were recruited from three acute in-patient mental health units geographically located in the NHS Trust catchment area. The NHS Trust provides services for in-patients, continuing care (community), forensics and prisons, and rehabilitation. The host NHS Foundation Trust provides mental and physical health care for mental health service users and on-going continuing professional development training to update and maintain skills of mental health staff. Training in physical health care may include care planning to address complex physical health problems, phlebotomy and ECG training, NEWS (National Early Warning Signs), Immediate Life support, assessment of cardiometabolic risk factors, and recognising and managing signs of physically deteriorating patients. The ongoing training in physical health care is provided to psychiatrists, qualified mental health nurses and support workers. The trust also provide training to named physical health leads (mental health nurses) on the wards to promote health lifestyles including smoking cessation and weight management interventions. The trust employs inhouse physical health nurses in mental health (registered general nurses) to provide specific training to mental health staff depending on service needs for example ECG training, management of serious allergies and anaphylaxis, resuscitation and emergency equipment, care planning for patients with complex physical health needs, and management of diabetes.

3.4.4 Participant group size

The study utilised purposive sampling to select participants in keeping in line with the notion that each participant could add information that could bring in new meaning. In purposive

sampling sometimes called non-probability sampling, the researcher endeavours to select participants that are relevant to the research question (Bryman, 2016; De Gagne & Walters, 2010) . The aim of sampling is to choose participants who have had experiences that are the focus of the study and ready to share their experiences and perspectives (De Gagne & Walters, 2010).

The requirements for an adequate participant group size in qualitative research are widely debated. Some considerations may include research questions, data saturation, heterogeneity of the population, and theoretical basis of the research (Bradshaw et al., 2017; Bryman, 2016). Braun et al. (2019) warn against magic formulas for calculating participant group sizes in reflexive thematic analysis research and that group sizes cannot be wholly determined in advance of data collection. The concept of data saturation or information redundancy warrants interrogation and data saturation as a generic measure of data adequacy is not methodologically and philosophically aligned with reflexive thematic analysis approach (Braun & Clarke, 2021b). Researchers who advocate data saturation seem to rely potentially on superficial impressions of data collected and this may be incompatible with reflexive approach to thematic analysis (Braun et al., 2019). Data saturation is often understood as the researcher collecting data to a point where no new information or insights will be generated by collecting additional data (Braun & Clarke, 2021b). Within reflexive thematic analysis, knowledge is generated or constructed and not discovered and it is always possible for new understanding to develop through prolonged or ongoing data engagement or reviewing data from different perspectives (Braun & Clarke, 2021b). The underlying philosophy of qualitative approaches including reflexive thematic analysis emphasises meaning as contextual, multiple and knowledge co-created between participants and researchers involving the interpretive efforts of researchers (Braun & Clarke, 2021b, 2022b;

Braun et al., 2019) . Using data saturation to calculate sample sizes is problematic and undermines the assumptions embedded in the underlying philosophy of qualitative research (Braun et al., 2019).

In reflexive thematic analysis, judgements about sample sizes and when to stop collecting data are interpretative, situated and pragmatic (Braun & Clarke, 2021b, 2022b). This is often shaped by contextual considerations including the breadth and focus of the research question, the diversity in the population including identity-based or experiential diversity and the richness of the data generated from each participant or data item and how that meshes up with the aims and requirements of the research (Braun & Clarke, 2021b, 2022b). Pragmatic considerations may include practical constraints, local norms around the scope of the research for example appropriate scope for doctoral research, and journal requirements that a researcher intends to publish their research in (Braun & Clarke, 2022b; Braun et al., 2019). This study draws from a broad range of perspectives from three groups of participants. Participant group size of eighteen provided rich data to address the research questions and uncover the multiple realities of the participants.

3.4.5 Selection of participants

Selection of study participants (see figure 3.1) commenced following approvals from Lancaster University Faculty of Health and Medicine Research Ethics Committee (FHMREC) (Appendix 3), Health Research Authority (Appendix 4), and Research and Development department of the host NHS Trust (Appendix 5). Relevant staff in the host institution's research and development department facilitated sending out initial invitation

pack via email to all nurses, ward managers, modern matrons, quality and governance managers, practice nurses and physical health trainers. Staff were asked to confirm their interest directly to the researcher via email. The information pack included a letter of invitation (Appendix 6), participant information sheet (Appendix 7), consent form (Appendix 8) and expression of interest form (Appendix 9). The participant information sheet provided details of the study purpose, objectives, potential benefits, and any discomfort that may arise. The participant information sheet also provided information about participants rights to confidentiality and anonymity. Some ward managers also introduced the study to staff in their staff and clinical governance meetings.

Potential participants interested in taking part contacted the researcher directly via email to express their interest using expression of interest form. Potential participants who expressed their interest via email were contacted via phone or email by the researcher to check their comprehension of the purpose of the research, benefits and any potential discomfort that may be experienced and to arrange an interview. The researcher talked through the study with potential participants contacted by phone and if eligibility criteria were met, arranged an interview. The researcher went through the key elements on the participant information sheet and consent form to check comprehension. Completed and signed consent forms were sent in advance via email using encryption feature that encrypted the email unless the recipient was an accredited domain. Instruction and guidance on how to encrypt the email (including a link to guidance) were provided. Completed and signed consent forms were also submitted at the time of the interview but before commencement of the interview. Prior to the commencement of each interview, the researcher also talked through the research with the participant to ensure informed and valid consent was obtained.

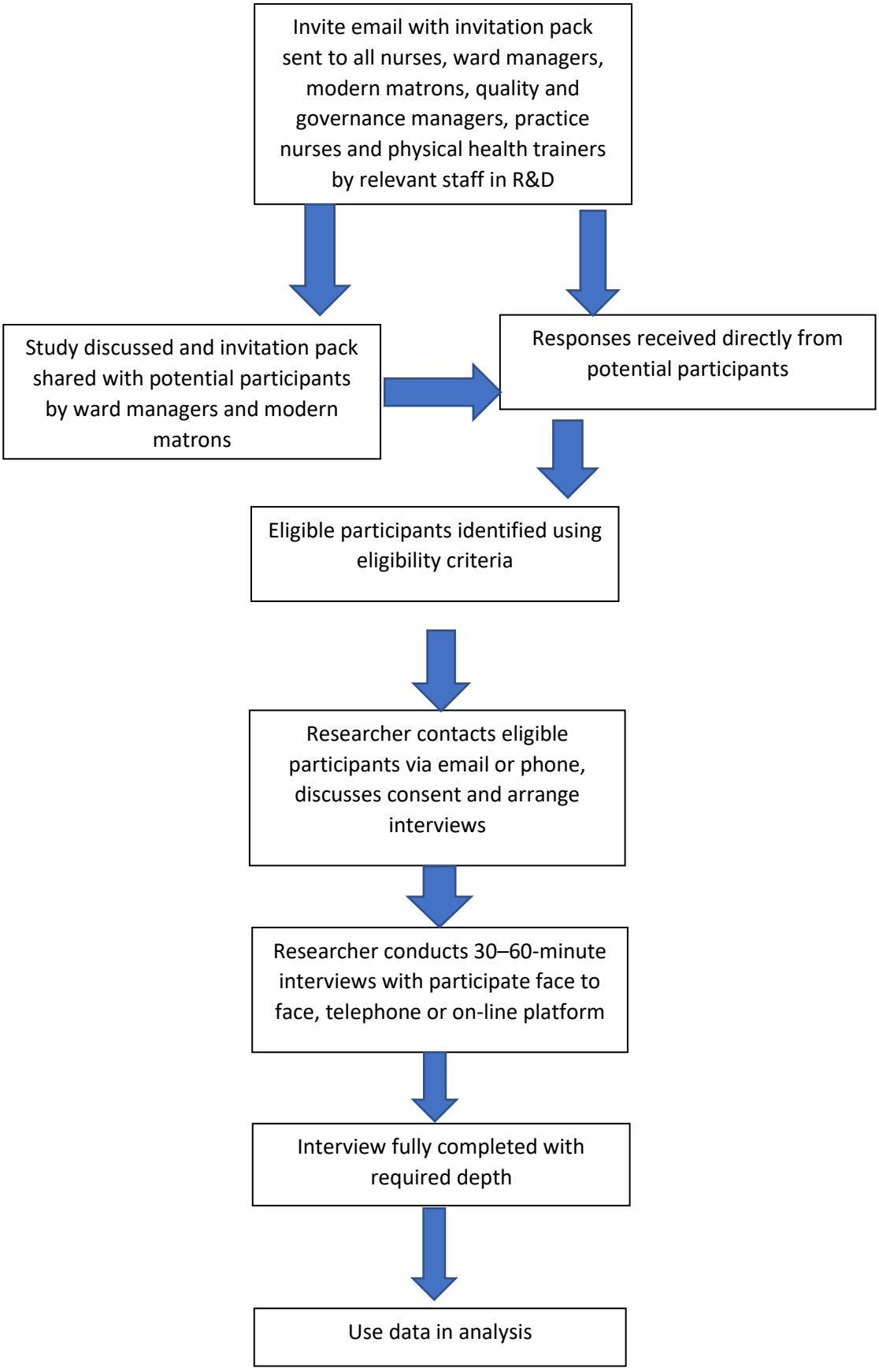

Figure 3.1 Flow diagram of selection of study participants

3.4.6 Dataset generation

Semi-structured in-depth interviews were conducted and depending on choice of participants were either by telephone, via Microsoft teams or face to face. Telephone and Microsoft teams were generally preferred to reduce lone working research, but the option of face-to-face interview remained open to participants if they chose this method. (Bryman, 2016). All face-to-face interviews were conducted in a quiet, and prebooked room in the host institution's premises. Where face to face interviews occurred, Lancaster University has an established lone worker policy for researchers which was followed, and which includes protocols for emergency contacts and following up researchers. All face-to-face interviews adhered to guidelines in place at the time. All participants were interviewed once due to the in-depth nature and richness of the interviews even though there was an option to conduct a second interview if required.

A topic guide (see Appendix 10) was used as opposed to an interview schedule to ensure that the data collection was driven by issues that were central to the participants rather than the researcher. The interviews were flexible allowing participants to discuss their experiences more freely. Reflexive thematic analysis emphasises a more fluid and flexible approach to interviewing and interviews are based on interaction and co-construction of meaning between researcher and participants (Braun &Clarke, 2022). The guide evolved following review of the transcripts of initial interviews and as more meanings were constructed during interviews and interpretations during analysis. Reflexive thematic analysis normally involves identifying new patterns of meaning and this usually occur following data collection and analysis is necessary to determine whether information generated by participants offers new meaning or not (Braun & Clarke, 2022b; Braun et al., 2019). The questions in the guide were based on

review of the literature, theory and identified gaps. The topics were designed to elicit information about what the experience is like for mental health nurses in providing physical health care, the meaning of their experience, what knowledge and skills they perceived as important in performing this role, perceived benefits from any training received and meaning of success, and work environment factors influencing physical health care. Interview guides for managers, mental health nurses and trainers drew upon conceptual and theoretical underpinnings of this study. A sample of Interview topic guides for mental health nurses and key topic areas for discussions with managers and trainers is included in appendix 10.

3.4.7 Data analysis

The data from the interviews were analysed using Braun et al. (2019) reflexive thematic analysis. Reflexive thematic analysis is about being reflexive and allows thoughtful engagement with the data aiming at achieving richer interpretations of meaning instead of consensus of meaning (Braun & Clarke, 2022b; Byrne, 2022). Coding in reflexive thematic analysis is not fixed and is an iterative process and develops from the analytic work of the researcher reflecting the researcher's interpretation of meaning across the dataset (Braun & Clarke, 2022b; Braun et al., 2019; Byrne, 2022).

Reflexive thematic analysis can be carried out inductively where code and theme generation are driven by the data or deductively where the analysis is informed and guides coding and theme development (Braun & Clarke, 2022b). A predominantly inductive approach was adopted in this study as the overall orientation prioritised data based meaning and open coding which best represents meaning as communicated by the participants (Byrne, 2022;

Byrne & Carthy, 2021). However, some deductive analysis were undertaken to ensure that the open codes contributed to themes that were relevant to the research question and that participant data-based meanings were relevant to the research questions (Byrne, 2022; Byrne & Carthy, 2021). Coding can also be semantic which explores meaning at surface or superficial level or latent which examines implicit or hidden meanings (Braun & Clarke, 2021a, 2022b). In this study, both semantic and latent coding were utilised with semantic codes produced where it was meaningful to interpret and latent codes applied where meaningful latent information were interpreted (Byrne, 2022; Byrne & Carthy, 2021).

Braun & Clarke identified a six-stage process of doing and learning how to do thematic analysis and reiterated that this is not a linear process but recursive and iterative (Braun & Clarke, 2019a, 2021a, 2022b; Braun et al., 2019). The six-stage process was applied in a non-linear manner facilitated by NVIVO 12 management software. The six-stage process include familiarisation with the data, coding, generating initial themes, reviewing themes, defining and naming themes, and writing up (Braun & Clarke, 2019a, 2021a, 2022b).

Table 3.2 Data analysis guided by Braun& Clark reflexive thematic analysis

Step	Description	Example
Familiarisation	Familiarising myself with the data	I listened to the audios a few times immersing myself in the data. The services of an approved Lancaster university transcriber were used to transcribe the audios verbatim. Anonymised transcribed interviews were

		imported to my NVIVO 12 project. I read and re-read the transcribed interviews multiple times making notes.
Coding	Initial coding of interview transcripts using inductive approach. Semantic and latent codes utilised where meaningful to interpret. Folders were created for each stage in the NVIVO 12 project to provide an audit trail and show transparency in the research process and outcome.	Initial codes developed in NVIVO 12 project (appendix 11). Examples: -Anxieties about physical health care -Changing priorities -Disruptions to ward environment -Escalation -Managing expectations -Making training accessible
Initial themes	Candidate themes were moulded and constructed based on researcher experience, subjectivity and research question (Braun et al., 2019). The themes at this stage were candidate themes. They resembled topic summaries at this stage	Candidate themes developed in NVIV0 (appendix 12) -Service user factors -Staff attitudes and motivations -Organisational factors -Roles and responsibilities -Perceived effectiveness of training -Training topics -Training modality

Reviewing themes	The candidate themes were reviewed by compiling all codes to ensure that they tell a coherent and insightful story about the data in relation to the research question; the themes were also checked against the whole dataset (Braun et al., 2019). . Thematic mapping of reviewed themes using NVIVO 12 project showing how themes relate to each other	Thematic mapping of revised themes and subthemes (appendix 13) Examples: Theme: (a) Promoting professional autonomy *Subthemes:* *-Training going to waste* *-Nurses feel out of depth* *-Time to sit down with patient* (b) Staff attitude and motivation *Subthemes:* *-I am there for mental health and not physical health* *-I think it is to do with my curiosity*
Defining and naming themes	Themes were defined, renamed to construct shared meaning themes as opposed to topic summaries (Braun & Clarke, 2022b). Final thematic mapping of themes.	Final thematic mapping of themes and subthemes in findings chapter (figure 4.1).
Writing up	The writing up included writing the findings chapter with themes and subthemes illustrated by relevant data extracts. This final test showed how well the themes work individually and in relation to the dataset overall and how they have	The findings chapter details relevant themes and subthemes with illustrative quotes

	addressed the research questions and objectives.	

3.4.8 Reflexivity in data collection and analysis

Reflexivity can ensure rigour and ethical practice in research (McDermid et al., 2014; Pezalla et al., 2012). Darlaston-Jones (2007) emphasized that researchers need to examine their roles in the interview process, and challenge how their experiences, personal views, and biases might influence or interact with the narratives of the participants. Maintaining a reflexive journal or diary will enable researchers to reflect on the research process, subjective choices made, and how our values, preconceptions and motivations might have affected our data collection and analysis (Braun & Clarke, 2019a). I maintained field notes and a reflective journal to provide an audit trail and demonstrate evidence of the reasons for methodological and theoretical choices.

The issue of reflexivity is also important given my employment in the host institution. Being a mental health nurse and an employee of the host institution, I was aware of potential challenges and conflicts that might arise when conducting this study. Insider research refers to when researchers carry out research in settings or populations that they are members of and share identity and experience with the study participants (Dwyer & Buckle, 2009). Unluer (2012) highlighted several benefits of insider research. An insider researcher will have (a) greater understanding of local values, knowledge and culture (b)understanding of power structures within an organisation (c)relatively easier task to gain acceptance, obtain permission for conducting research, interviews and accessibility to records which will enhance the research process (Unluer, 2012). However, critics argue that insider research

may raise concerns about excessive influence of researcher's perspectives and participants failing to share their experience fully (Dwyer & Buckle, 2009). Indeed, under quantitative research, my positionality as an insider researcher would have been subject to severe criticism or even prohibited to ensure objectivity and hence my choice of qualitative methodology (Chammas, 2020).

To deal with ethical challenges and potential conflicts throughout the research, I maintained strict boundaries, professionalism and avoided overfamiliarity with participants. During recruitment, I reiterated the voluntary nature of taking part in the research and ensured that potential participants understood all the information on the participant information sheet (see appendix 7). Participants rights to anonymity and confidentiality were reiterated throughout the research process. At the beginning of every interview, I explained and differentiated my researcher and clinician role. My knowledge of the institution and my professional background as a mental health nurse provided a platform to engage in discussions with the participants. Given my personal and professional experience of the challenges in provision of physical health care for patients with serious mental illness, it was easier to discuss with participants who had faced similar pressures and as someone who understood their challenges. My goal was not to distance my own experiences from those of the participants and I exercised self-awareness of my emotions and links to the topic. I was also reflexive about the influence of my personal and professional background on interpretation of data. To do this, I maintained a journal with personal notes and comments following each interview about my thoughts, emotions and responses and discussed with my supervisors. Additionally, I also had to deal with the assumption made by some participants during interviews that I already know some of the answers as I was seen as an experienced professional. Participants who are aware of researcher's insider status might make

conclusions that the researcher already has the answers and may fail to elaborate their thoughts in depth in response to the research questions (Chammas, 2020). My insider identity was more pronounced among those participants that I have worked with and less so for those who knew that I work in the institution but had very little professional contact with. I confronted this challenge by asking participants to provide detailed answers to questions and further clarified the difference between my role as a researcher from my clinician role. My current role in the host institution includes clinical supervision and preceptor role for band five nurses. However, I did not have any supervisory relationship with any of the participants recruited in the study. I was aware that power relations may determine how participants perceive the researcher's identity during interviews (Chammas, 2020).

3.4.9 Ethical issues

Risks and Burden of Research

The Economic and Social Research Council ESRC (2015) Framework for research ethics sets out key principles and expectations for ethical research. A key principle is that every research should be worthwhile, and benefits should outweigh potential risks. Adequate precautions were undertaken to mitigate any harm or potential risk. It was anticipated that participation in this study would not cause any harm, distress or discomfort as no personal or sensitive issues would be discussed or raised in the interviews. A Lancaster university protocol was put in place whereby if any participants experienced distress or discomfort during interviews, the interview would be terminated or timed out and participants provided with contact details of mental health support services. However, no distress was observed or reported by the participants during or after the interviews.

There was also a possibility that the participants would disclose poor practice about physical health care and if this happened, the participants were informed that the researcher had a duty to disclose this to the relevant members of staff. However, no such practice was disclosed during the interviews. Even though there were no direct benefits from participating in the study, the mental health nurses were able as part of the interview process to reflect on their training needs, skills or experience with the potential to influence practice. Managers and trainers were also able to reflect on results, benefits and costs of training and how future training may be improved. The findings from this study also contribute to limited research in this area to support training in physical health care and improve experience and outcomes for service users.

Confidentiality

The rights of the participants to confidentiality and anonymity were explained to them during recruitment. The participants were informed that data would be anonymised including the use of pseudonyms. Their rights to confidentiality and to withdraw from the study at any time before and after the study were explained. However, limits to their rights to withdraw from the study and confidentiality were explained fully to the participants. Participants were also informed that once their data was anonymised and incorporated into themes, it might not be possible for it to be withdrawn. They were also informed that participants' interview responses would be pooled together anonymised and may be published but all reasonable steps would be taken to protect the anonymity of the participants involved. Anonymised direct quotations from the interviews might be used in the reports or publications from the study but anything identifiable would be removed from the quotes.

Face to face interviews were recorded using an encrypted hand-held digital audio recorder and coded audio files were uploaded to a secure remote server accessible only to the Lancaster University research team (researcher and supervisors). The audio recording of participants' voices on the recorder were held until data analysis was completed and then deleted. In the meantime, the digital recorder was handled and stored securely. Data storage and handling complied with Lancaster University policies. This includes locked storage, password protection, encryption and anonymisation of original data. The keys to anonymised data are kept only on a separate register and stored separately from all other research records. Data at Lancaster University are stored on a distinct area of a secure server, accessible only by authorised members of the research team, encrypted and password protected.

Interview transcripts were all stored electronically or digitally in Lancaster University's approved secure cloud storage, and these could only be accessed via VPN or remote desktop. These were only accessible by authorised members (researcher and supervisors) and were password protected. All personal data were stored securely in Lancaster University's approved secure cloud storage, and these could only be accessed via VPN or remote desktop by authorised research team members only. The interviews were transcribed by approved Lancaster university professional transcriber, and they signed a confidentiality agreement as part of the contracting process (included in the appendix 14).

3.4.10 Rigour

Conducting a reflexive thematic analysis is not simply based upon a series of steps but a thoughtful interaction and engagement with the data and analytic process (Braun & Clarke,

2021a; Trainor & Bundon, 2020). A rigorous thematic analysis can result in trustworthy and invaluable findings (Nowell et al., 2017). Nowell et al. (2017) described trustworthiness criteria as transferability, confirmability, credibility and dependability. Credibility is concerned with alignment between participants views and researchers interpretations of them and a number of techniques can enhance credibility including prolonged interaction with the data, persistent observations, use of peer and researcher triangulation (Anney, 2014; Nowell et al., 2017). Reflexive thematic analysis involves interpretation of data through the lens of the researcher's sociocultural, ideological, professional and historical positioning (Braun & Clarke, 2021a, 2022b). I maintained prolonged engagement with the data by listening to audio recordings, reading and re-reading transcripts up to the point of completing write up of the findings chapter. Regular feedback from research supervisors regarding interpretation of findings and conduct of the research allowed me to reflect and improve the quality of findings of the empirical study. Researchers make assumptions about what data represent and what constitutes meaningful knowledge and I have in this study reflected and specified the theoretical and philosophical assumptions underpinning the use of reflexive thematic analysis (Braun & Clarke, 2021a).

Transferability in qualitative research refers to the extent to which the findings of a study can be transferred to other contexts with other participants (Anney, 2014; Braun & Clarke, 2022b). In this study, this was achieved by purposeful selection of participants and participants providing thick descriptions of the enquiry (Anney, 2014). Confirmability is concerned with establishing that interpretation and findings are clearly derived from the data and not based on the researcher's imagination (Anney, 2014; Nowell et al., 2017). An audit trail was maintained throughout the research process demonstrating evidence of choices made regarding methodological and theoretical issues with clear rationale and research

methods (Nowell et al., 2017). Transcribed interview transcripts were imported to NVIVO 12 software and folders created for the different stages of reflexive thematic analysis and the NVIVO project shared with research supervisors which allowed for transparency and confirmability. Reflexivity is central to the audit trail and reflexive documents (journals and field notes) were maintained to record personal reflections of the researcher, methodological decisions, and events during the data collection process. Reflexivity facilitates an assessment of the researcher's personal and professional background, interests and perceptions on the qualitative research (Anney, 2014). Dependability refers to stability of data over time and this was maintained in this study by maintaining an audit trail as highlighted previously (Anney, 2014). The twenty-points checklist evaluation tool for thematic analysis Appendix (15) set by Braun and Clarke (2021a) was used to evaluate the quality of thematic analysis.

3.5 Conclusion

In this chapter, the approach and philosophical positioning of the qualitative study are discussed including the rationale for choosing a reflexive thematic analysis underpinned by hermeneutical phenomenological epistemology. Data collection methods are described including justification for choices made. Researcher subjectivity is key to the research in line with the philosophy of the research and reflexivity in data collection and analysis are discussed. In particular, the researcher has been reflexive about their role in the host institution as a clinician and possible influence on researcher role. Ethical considerations pertaining to the research and relevant approvals are discussed. Issues of rigor and quality in relation to conducting the research are also examined. The findings from the study are presented in the next chapter.

Chapter 4: Findings

4.1 Introduction

The four themes developed from the 18 interviews with the three participant groups (in-patient mental health nurses, managers of mental health nurses and trainers in physical healthcare) are presented in this chapter. Participants characteristics are briefly outlined followed by a detailed account of the themes supported by illustrative quotes from participants. A table and thematic mapping of the themes and subthemes are presented. The findings from the three participant groups (in-patient mental health nurses, managers of mental health nurses and trainers in physical healthcare) were considered together under the four themes as areas which shaped physical health care delivery for patients with serious mental illness in in-patient mental health settings.

4.2 Overview of participant characteristics

Nine group one (mental health nurses), four group two (managers of mental health nurses) and five group three (trainers in physical health care) participants were recruited and interviewed. The interviews lasted between 42 minutes and 55 minutes with a mean duration of 49 minutes. The sample contained a range of ages, ethnicity and both male and female (Table 9). Participants within age range of 50-60 and of black ethnicity were more represented in the participant group size. In participant group one (mental health nurses), eight participants were registered mental health nurses, and one was a healthcare assistant (non-registered role). In participant group two (managers of mental health nurses), three were ward managers and one was modern matron. In participant group three (trainers), three were practice development nurses, one a professional nurse educator (PNE) and one a physical health nurse (RGN) in mental health. All participants worked for the same mental health

NHS Foundation Trust**.** Most participants have more than five years' experience in current role.

Table 4.1 Participants' demographics

Participants' characteristics (n=18)	Category	Total
Gender	Male	5
	Female	13
Age range	20-29	1
	30-39	1
	40-49	5
	50-59	10
	60-69	1
Ethnicity	Black African/British	12
	White British	5
	Chinese	1
Participant groups	Group 1 (mental health nurses)	9
	Group 2 (managers)	4
	Group 3 (trainers)	5
Role/Profession	Health Care Assistant	1
	Staff Nurse (band 5)	3
	Clinical Charge Nurse (band 6)	5
	Ward manager (manager)	3
	Modern matron (manager)	1
	Practice development nurse (trainer)	3
	Physical health nurse (RGN) in mental health (trainer)	1
	Professional Nurse Educator (PNE) (Trainer)	1

Years of experience in current role	≤ 1 year	2
	2 – 5 years	2
	> 5 years	14

4.3 An overview of the themes and supporting subthemes

Four themes and ten subthemes were developed from the interviews (Table 4.2). The themes are not hierarchical. The thematic mapping is shown in figure 4.1.

Table 4.2 Themes and supporting subthemes

Themes	Supporting subthemes
Culture of care and sense of competence**: "**Oh yeah, they asked me to do blood sugar. I told them I'm not there for the physical health; I'm there for the mental health"	1. 'No, let's call the Doctor': The impact of deskilling, denial, and deferral in providing physical health care 2. 'We are dealing with complex comorbidities': why don't we have a physical health nurse? 3. Nurses' motivation to upskill: 'I think it is to do with my curiosity of me wanting to learn more about something'
Promoting professional autonomy: "Training went to waste"	1. Frustration and helplessness: 'Training went to waste; it's all left to the doctors' **2.** The influence of time: 'So the first thing will be just time to sit down with the patient'
The influence of mental state: "They tell you that, "I don't need it; I don't think anything is wrong"	1. Patient mental state is unsettled: 'physical health investigations are delayed until we are able to get patient to baseline mentally' 2. Reluctance to engage: 'we are basically chasing them to come and do their blood pressure'
Training success: what does it mean to me?	1. I'd expect our dashboards to be green" 2. The dressings haven't just been left for me to take down 3. The training helps you identify that this is a physical health and not a mental health presentation

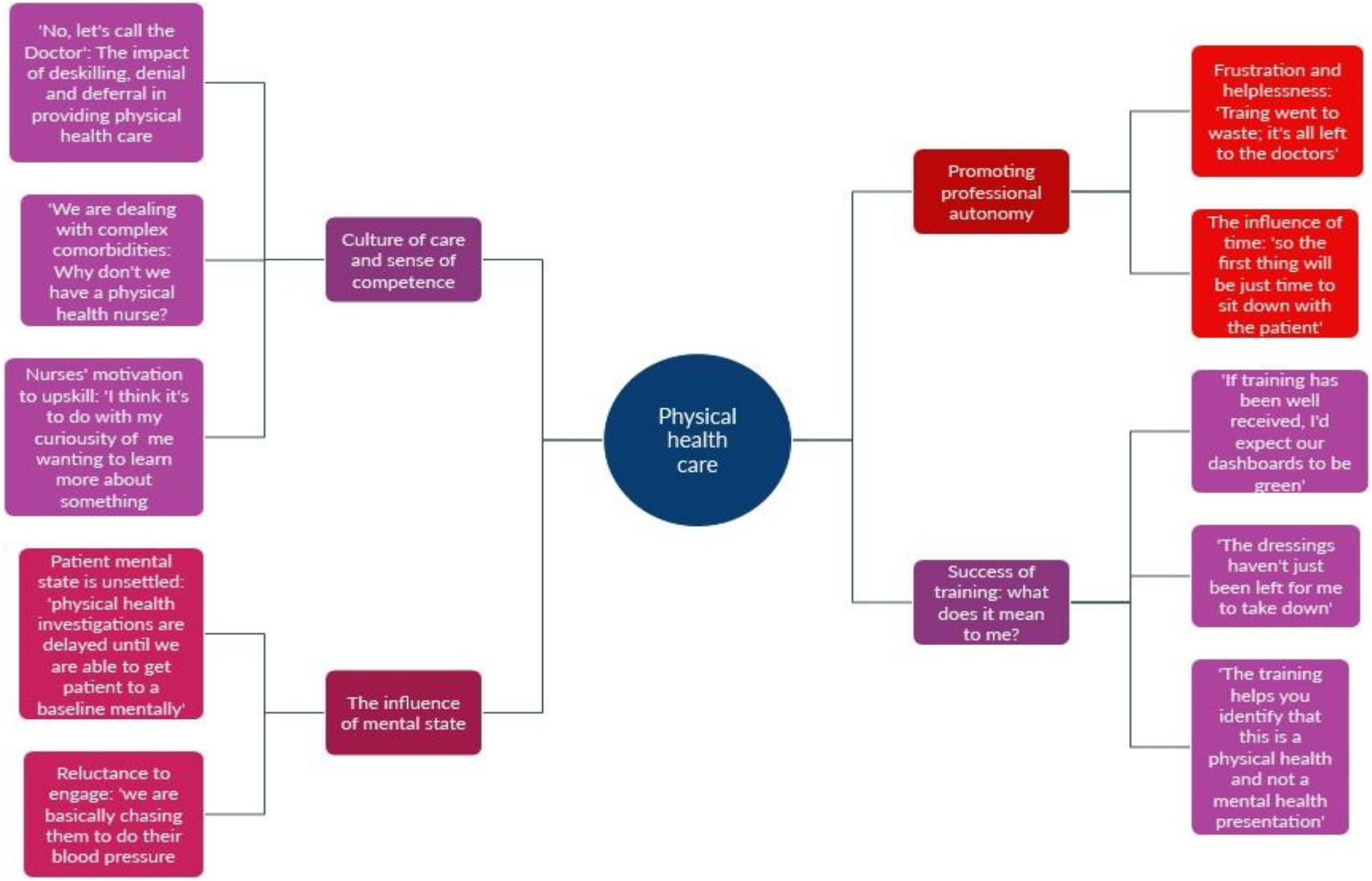

Figure 4.1 The thematic mapping of the themes and subthemes

4.4 Theme: Culture of care and sense of competence: “Oh yeah, they asked me to do blood sugar. I told them I'm not there for the physical health; I’m there for the mental health”

The experiences and attitudes of mental health nurses towards physical health care and motivations for upskilling are presented within this theme. Perceptions of their role being predominantly focused on mental health care instead of providing holistic and integrated care are examined. Foundational and structural issues that underpin the nurses’ sense of competence to address physical healthcare needs of patients are reviewed. Perceived complexities of dealing with physical health care co-morbidities and the crucial role of in-house physical health nurse (RGN) in supporting mental health nurses are explored. Nurses’ different orientations for upskilling in physical health care and the interconnectedness between intrinsic and extrinsic motivations are reviewed.

There are three subthemes to this theme (Subtheme 4.4.1: ‘No, let’s call the Doctor’: The impact of deskilling, denial, and deferral in providing physical health care’; Subtheme 4.4.2: ‘We are dealing with complex comorbidities’: why don’t we have a physical health nurse? ; Subtheme 4.4.3: Nurses’ motivation to upskill: “I think it's to do with my curiosity of me wanting to learn more about something”.

4.4.1 ‘No, let’s call the Doctor’: The impact of de-skilling, denial, and deferral in providing physical health care

Worries and uncertainty about providing physical health care to patients who were in-patients on mental health wards were pervasive. Confidence in their own knowledge and aptitude

appeared to underpin many of these concerns. However, there was also a sense that mental health nurses should not have to provide such care, that this was not only outside their competence and clinical authority, but also outside the remit of their role. Two overarching issues appeared to scaffold these worries: personal concerns about ability; but also, structural issues related to perceived role and the culture of care.

First, mental health nurses expressed concerns about their ability, skills and knowledge to provide high-quality holistic care that responded to physical health needs. Concerns were articulated about the level and scope of their initial nurse education. Examples included only two to four weeks being spent in general physical healthcare settings over their three-year programme:

*"The training was not; it was adequate for mental health. I think it was just almost like, "Just go there and spend three weeks and tick the box and come". And if you went into a fracture ward that would have been your only experience in physical health, a fracture ward, then you come to mental health how many times do you see a fracture patient." (Ward manager) (*Participant 2.1)

Such limited preparation seemed to be a foundational issue underpinning nurses' sense of competence to address physical healthcare needs, and a sense of ***deskilling***. This included situations which they recognised that general nurses might find straightforward. When uncertain about their role or competence they used avoidance or deferral to others as a coping mechanism. This created what might be a perpetuation of a downward spiral of ***deskilling*** where avoidance led to further diminished confidence and competence.

"What I don't like is every time someone has self-harmed, and we are saying, "Go to urgent care," we need to be able to deal with those small things, we need to be able, but not many of us are confident in doing that. So that's what we are trying to bring to our newly qualified nurses, to say, "Some of these things, yes, urgent care is there, yes A&E are there, but there are some things that we can do, we are just nurses as well." (Professional Nurse Educator) (Participant 3.1)

Second, structural issues related to perceived role and the culture of care. Mental health nurses consistently emphasised their role providing complex mental health care, dismissing or diminishing their role in providing physical health care. The ubiquitous culture of care apparent from these data was the paramount focus on mental health needs to the detriment of holistic patient centred care. Nurses wanted to do the bare minimum deferring basic physical health care to others:

"Yeah, what we need to is we need to, because nurses, we don't… for example, we go to… let me give you an example. We have a patient that they're not well physically, I would send them to physical, I mean general side of nursing and we go there to, maybe section patient, we have to stay with this patient and we send some of the support worker, nurses, to go in turn. And I find so many reports from them, I say, "Oh yeah, they asked me to do blood sugar. I told them I'm not there for the physical health, I'm there for the mental health". You know? We need to change this kind of…" (Clinical Charge Nurse) (Participant 1.1)

Such attitudes had created what seemed like a silo mentality, with mental health nurses assessing tasks as related to either mental health care needs (within role and remit), or physical health care needs (often perceived to be either outside role and remit, or where they

were concerned, they lacked the skills to meet such needs). The impact of this on holistic person-centred care did not seem to be fully recognised or appreciated.

Some however were frustrated by the impact of both these personal and cultural barriers to holistic care. Some recognised the differences between ***dealing*** and ***deferring***, and the challenge of ***denial***. Rather than recognising that a potentially relatively simple physical issue such as elevated blood sugar might be ***dealt with*** at least initially with relatively basic knowledge, some staff ***deferred*** to those that they perceived to both have a superior knowledge and where the ***dealing with*** was felt to be within role:

If a person comes down and says, "My blood sugar is high", nobody tries to do the simple things first: "Okay, what are you eating? What have you been eating? What is going on with your blood sugar and vital signs? Let's monitor a little; let's see what you eat during the next meal". Immediately something happens, "No, let's call the Doctor". (Ward Manager) (Participant 2.1)

Rather than being in ***denial*** about both their own role in physical health care and the needs of their patients, some respondents argued that there was a need to nurture, support and motivate staff to engage with physical health needs as part of their role:

"So, it's about us motivating the people with various prejudices against physical health and all that. So, we need to make the people that are either in denial or ignorant about it, so we need to bring them on board. And there's no point being hard-line about it because they will

just close up. We need to encourage and nurture people to make them see that that this is a physical condition, this is really important that we do this. (Modern Matron) (Participant 2.2).

4.4.2 'We are dealing with complex comorbidities': Why don't we have a physical health nurse?

Participants' experience regarding the perceived complexities of dealing with the care of mental health in- patients with physical health comorbidities caused nervousness and fear for some participants. Feeling overwhelmed by the perceived complexity of the care needs of these patients and lack of confidence contributed to this nervousness. Confidence levels were dependent on their perceptions of their skills which in most cases were perceived as inadequate to manage some situations. There was a ceiling of care that appears expected of mental health nurses with regards to their physical healthcare role.

"I think the training needs are ongoing, I think what was a very interesting point that I talked with one of our head of nursing recently is not to… there is a ceiling here to what we should be expecting our mental health trained nurses to achieve from a physical health point of view. So unless you're a dual trained nurse by trade, and have literally gone away to do a whole another programme of study, you know, there will be a point that you- we want people to engage with physical health but there's almost a ceiling of care that we can expect. And actually, if we don't get the basics right, so if we fail to escalate a patient with higher NEWS score or fail to understand that a heart rate is high, or don't see that someone's consciousness level isn't alert, these are when patients are suffering and becoming very unwell or dying." (Physical health nurse RGN) (Participant 3.3)

The support from a physical health nurse (RGN) in mental health in acute in-patient mental health settings was perceived as crucial in upskilling nurses, providing a source of expertise, and supporting practice. Respondents considered the role of the physical health nurse (RGN) as dealing directly with patients to help support mental health nurses to manage physical health conditions and include things like wound management or acute deterioration of physical health. The physical health nurse (RGN) also provides training for mental health nurses in physical health conditions such as diabetes or in response to incidents that have happened on the wards to do with physical health.

"And along that line, I said to [Physical health nurse RGN] I want her to run a rolling training programme for our staff, training them on the physical aspect and she's done something on constipation, she's done obviously the emergency bag. So, she's doing regular training with our staff and with the other staff in the unit". (Modern Matron) (Participant 2.2)

Even though the role of the physical health nurse was seen as crucial in supporting staff and patients, this role caused some concerns. In particular, the risks of de-skilling of mental health nurses over time, as some mental health nurses may want to devolve their responsibilities in relation to physical health care to the physical health nurse (RGN). Some perceived it as important that responsibility for providing physical health care is retained by every member of the team.

"It's reassuring that she's there to answer questions, do some kind of consultation work. She can do ad hoc training as and when is required or set up a training programme but for me I think there's a worry that all physical health issues will fall to her and that the staff will see

someone with, say, complex diabetes and rather than try and tackle it themselves, they will defer that issue to the physical health nurse." (Practice development nurse) (Participant 3.4)

However, the benefits of a nurse focused on the provision of expert physical health care was also apparent to some. In advocating for the role of a physical health nurse (RGN), a practice development nurse highlighted perceived differences in practices and outcomes for patients. It was perceived that problems with patients that have complex physical health issues are more likely to be identified, leading to better outcomes.

"*So, I think what we've seen and what's interesting is the feedback that's been given from when one ward in the other unit came here temporarily for refurbishment, the feedback that I was given from the staff when they went back to their own unit was, "Why don't we have a physical health nurse?" Because they felt it was really a great benefit to the team, they felt that the issues that the patients were experiencing were picked up and acted on early*." (*Practice development nurse*) (Participant 3.4)

There was also sense amongst some respondents that the educational preparation for the recently introduced nursing associate role is more suitable to address the challenges of physical health care. The feeling highlights foundational issues that underpins the nurses' sense of competence to address physical health care needs. Pre-registration mental health nursing education should provide sound foundational theoretical knowledge and clinical practice in physical healthcare. The sense of better educational preparation to deal with physical health care challenges was attributed to the generic nature of the nursing associate programme. The nursing associate apprenticeship role is a two-year programme that provides a route to graduate level entry nursing that is fully funded and offered to eligible health care

assistants who want to upgrade from a Band 2 nurse to a Band 4 nurse. The education is generic, with students experiencing learning in both mental health and physical health care.

"*But I've found an interesting dynamic in that when we've had the nursing associates come in, due to their training, they're, like, champions of physical health, so we have one nursing associate who's really taught me as well a lot about physical healthcare, because it's in her DNA, you know, if I could say that, because that's how she's trained, she knows about it, she's excellent at it, she knows how to have those conversations with the patients about physical healthcare, and that's a training aspect" (Ward Manager*) (Participant 2.3)

As a result of their generic education, nursing associates can change culture, set good standards, teach others and be physical health champions/leads on the ward and good influence/role model to others. They are seen as driving up physical health care standards and assessments on the wards.

"Yeah, to be honest, where I'm at with the nurse associate roles coming through, there are actually, they're better skilled than our registered [mental health] nurses, and if I was a registered nurse now, I'd go, "Oh, oh, I need to be as good as a nurse associate, but I've deskilled myself because I've got caught up in too many other things and I've forgotten how to take a pulse, and I've forgotten how to take manual blood pressure." So there is, I think that our nursing associates, our apprentices will be the people that drive up standards, physical health standards and the quality of those physical health assessments. "(Practice Development Nurse) ((Participant 3.2)

4.4.3: Nurses' motivation to upskill in physical health care: "I think it's to do with my curiosity of me wanting to learn more about something"

Nurses' desire to upskill were driven by different motivations or inclinations. There was a sense that nurses' motivations to upskill was rooted in their desire to seek out challenges, prepare for eventualities and having an inquisitive mind. Nurses upskill out of deep sense of commitment, satisfaction, personal growth needs and passion for their patients. They want to feel competent and be prepared to deal with the challenges of providing holistic care.

"Well, my passion because of my passion in being a nurse this is a job I enjoy most. When I come into my job I'm always very happy because if you don't enjoy your job you won't have the zeal so I want to grow, I want to grow in my profession so I want to know everything so that is why I like going to training to equip myself and for my beneficiary of my patient, to benefit my patient in their physical health." (Clinical Charge Nurse) (Participant 1.4)

"I think something, I think it would come to me and my curiosity, to be honest. I think it's to do with my curiosity of me wanting to learn more about something. And I think, like personally, I would if I find something I need, I don't know, if I don't have the knowledge of something, I definitely want to know. Because if I don't know it, if a patient comes to me with it and I don't have that knowledge, obviously, I won't be able to provide that care. So it's down to my curiosity to undertake any further learning as well as opportunities if the opportunities are advertised and the time is given". (Health Care Assistant) (Participant 1.3)

Some respondents were, however, influenced by a separable outcome as opposed to inherent satisfaction only. There was sense amongst some respondents that the value of rewards including pay rise and promotions arising from participation in training makes people more motivated to learn training content so that the rewards can be achieved.

"100%, you know, last year, around November/December last year, there was an email sent by the Trust, which I was very grateful for, to say for most of our staff, our HCAs, they start from band two, but what the Trust was saying, "Listen guys, we have this care certificate, if we help you, once you get the care certificate, we will move you straight away automatically to band three. So, the financial aspect of it is enhanced as well. And most of them, they did the training, the two-day training, they got their care certificates, and they are band threes, the money is enhanced, it is happy days for everybody." (Professional Nurse Educator) (Participant 3.1)

However, intrinsic and extrinsic motivation for upskilling in physical health competencies are interconnected, and intrinsic motivation can easily be diminished by various non supportive conditions. Intrinsic motivation will flourish if supportive circumstances exist. Doctors often tend to take responsibility for decisions regarding physical health care as they feel more comfortable with physical health care generally due to their generic education. Doctors take ownership of situations because they feel more competent with clinical expertise to address physical health care needs of patients. This often created a sense of imbalance in power relationship and a form of hierarchy between nurses, doctors, and other healthcare professional. There is a need for shared decision-making, clear communication and collaborative actions to provide centred care.

"Some of the barriers you'd face is, as a nurse, you're the first person to encounter the patient, you still have to ask someone else, so, like the doctor to come and review the patient, or you have to ask the physical health nurse to come and review the patient, even though you know what you're supposed to do. So certain care plans for certain things, you'd still need that recommendation from the doctor, which is still more or less in line with the training you have, but because you're not physical health specialist, you would still need someone, a doctor or a physical health nurse to say, "Okay, this is fine," (Clinical Charge Nurse) (Participant 1.5)

"Yeah, that is quite frustrating. I think it is…with blood being taken and things like that, it's because there's quite often doctors will just go and do that, and I think maybe a lot of the medical team, they don't actually know that we actually have quite a few nurses that are trained in phlebotomy too, and in think that there's a bit of a lack of knowledge about that, because I think the doctors don't actually always know that. Because if the medical team knew that a lot of our nurses were also trained, they could be able to delegate those tasks to them when they need to be done, but I think that doesn't really happen, the doctors will just go and do it without, yeah." (Ward Manager) (Participant 2.4)

4.5 Theme: Promoting professional autonomy: "Training went to waste"

This theme reflects the influence and necessity of supporting conditions in promoting nurses' professional autonomy in physical healthcare delivery. The importance of supportive

structures including personal and political being in place that gives nurses the confidence to take charge of their choices in relation to providing patient centred care are explored. The influence of time and environmental constraints in nurses' fulfilling their role and the de-prioritization of physical health duties and training are also highlighted. There are two subthemes to this theme (Subtheme 2.1 Frustration and helplessness: "Training went to waste; it's all left to doctors"; Subtheme 2.2 The influence of time: "So the first thing will be just time to sit down with the patient".

4.5.1 Frustration and helplessness: "Training went to waste; it's all left to doctors"

An important contributory factor to nurses' fulfilling their physical health care role is the opportunity to practice what they have learnt in post registration/on the job training. There is a common experience of participants not able to practice what they have been taught/learnt in post registration/on the job training. Sense of helplessness and frustration about training going to waste were pervasive. These feelings were underpinned by perceived lack of support from managers.

> *"Oh, okay, so like I was saying with the phlebotomy, I think it goes to the… it's phlebotomy. Phlebotomy, I spent a day at [name of University] University doing that training and then when it came to implementing it, like, I was looking for somewhere to go like the clozapine clinics and then I was calling and calling, spoke to the physical health nurse, [name of staff], and things like that and nothing ever came out of it. Like after follow up, follow up and follow up calls, so that is one barrier where you're not getting enough support or people are not finding that opportunity for you.*

Therefore, I was never able to then do that, so that training went to waste, basically. There are people with phlebotomist skills and people who know how to do ECGs, however, on the ward it's just not implemented. They're not given the opportunity to do it, although, they have that knowledge, it's all left to the doctors" (Health Care Assistant) (Participant 1.3)

Managers and ward-based nursing staff expressed competing perceptions regarding translation of learning into practice. Managers felt that nurses had personal responsibility to seek out opportunities to implement what they have learnt into practice. However, ward-based nurses, in contrast, felt that managers would not allow them to develop competencies gained through training, nor share these in practice. Overarching issues underlying the opposite views include poor communication, lack of collaboration between managers and trainees (nurses) and mismatched expectations and goals.

"If you request it, yes, if you request it why not? The truth about it is if you plan it well the time you are giving as supernumerary, you save it from other people. If somebody comes to tell me that they are going to do physical health clinic for four hours, then I don't have to allocate a staff to go and do vital signs for four hours. You can as well use it and do the vital signs and do the clinic; so, the staff that were supposed to do the vital signs go will go and do something else; it always saves time" (Ward Manager) (Participant 2.1)

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4.5.2 The influence of time "So the first thing will be just time to sit down with the patient"

Concerns about lack of time available to staff to provide holistic and integrated care were pervasive. Excessive workloads meant that nurses feel overstretched and limited time available to sit down with patients to discuss needs more comprehensively and holistically. Running wellbeing groups, physical health clinics (measuring body mass index, assessing cardiometabolic risks), smoking cessation groups, alcohol and drug sessions has become problematic**.** There was a sense amongst participants that building a therapeutic alliance or relationship with patients is the basis for the application of all interventions and this needs time and patience. This is especially so with mental health patients whose mental state may not be stable on admission and may not necessarily be ready to engage or discuss physical health concerns at first interaction. Time constraint can negatively influence the building of therapeutic alliance.

> *"So the first thing will be just time to sit down with the patient, talk about their physical health needs, so that's the first thing I would say." (Staff Nurse)* (Participant 1.6)

Compounding this problem, is the perceived lack of adequate support from other clinicians outside of normal working hours. The in-patient units operate two shift patterns for the nurses

(07:00 to 19:30 and 19:00 to 07:30) and team doctors operate on a 9-5 basis. Outside of normal working hours for the team doctors, there is one duty doctor covering an entire unit.

> *The second thing will be the support in terms of, let's say, during a 9:00 to 5:00 you've got the ward doctors, the consultants, you've got the physical health nurse, out of hours you've got one doctor" (Staff Nurse)* Participant 1.6)

Prioritisation of care needs of mental health patients posed serious challenges to mental health nurses in the light of limited resources. When mental health nurses are faced with the multiple challenges of the acuity of the ward, the mental health needs of patients and psychiatric emergencies take precedence over physical health needs. When staff feel overburdened about their workload, physical health care becomes de-prioritised in favour of mental health care tasks. Feeling overburdened also hastens burnout amongst staff.

> *"So, if you are a charge nurse and you have been asked to take bloods and you're going to go and bleed a patient, then you get a referral through for a PICU (Psychiatric Intensive Care Unit), you're going to prioritise doing the PICU referral because that is seen as your primary role because that is the way that our organisation is set up at the moment." (Practice Development Nurse)* (Participant 3.5)

There seems to be a gulf in focus between mental and physical health care and a culture in the organisation that prioritises mental health over physical health even though the two are intertwined. The way in which a manager and practice development nurse spoke about the need for nurses to request for supernumerary or protected time to carry out physical health

tasks and provide justification suggests the culture in the organisation of a task based oriented approach towards physical health care rather than a patient centred approach and lack of holistic care approach.

> "*So, it is their initiative. It's almost the same as physical health; we had people that went for smoking cessation training and they created a smoking cessation group, "Listen, I remember [name] then". [name of staff] did it so well; she created a smoking cessation session and and we gave her time. We gave her allocated time. So, on a particular day she will go with the patients; patients will come and it became a clinic." (Ward Manager)* (Participant 2.1)

> *"And if we would say that our ward nurses would be doing phlebotomy training on a regular basis, which I would like to encourage, then there should be time carved out and authorisation and commitance to actually go and do that without feeling like you're dropping the ball." (Practice development nurse)* (Participant 3.5)

The NHS trust studied prioritised training based on organisational needs. The focus of topics come and go depending on what the focus of the trust was at the time, and this dictates time and resources that the trust will devote to a particular area. The practice around post rapid tranquilisation was frequently cited as an example. Because of the focus the trust has put into it, the time and training that has gone into it, there is a change in culture and acceptance that this is a risky period. People now understand that once someone is sedated, there is a need to measure physical observations and if this cannot be done, physical eyesight observations should be recorded such as walking around, shouting, and communicating.

" I think if you look at… it's not consistent but if you look at the practice around post rapid tranquilisation observations, you know, two or three years ago people might have their blood pressure taken or they might not, you know, they'd be sedated if it was a particularly bad incident of restraint and people were very distressed and there was lots of anxiety around it and the person refused to have their observations taken it would just be left." (Practice Development Nurse) (Participant 3.4)

For learning to be embedded in practice, it is important that nurses carry out interventions not just to fulfil the NHS trust requirements, but because they recognise the need. The use of threats and pressures may achieve short term goals but may be unhelpful in integrating and embedding training into practice.

"We can look at the physical health one too whereby a lot of training was done on three-day monitoring of physical health, but result wasn't improving; it was until the point that we started holding individuals responsible that you now notice that it was so. Training-wise is one aspect; staff having the initiative to implement what they learnt in training is another thing." (Ward manager) (Participant 2.1)

When staff recognise the knowledge gap, understand its importance, they tend to take ownership and are more motivated, It is not about using a heavy handed or forceful approach but it is about motivating and encouraging staff to buy into the reasons for the interventions.

Threats or external pressure are unhelpful in internalising and integrating training into practice.

> *"I'm not holding a sledgehammer, but I'm saying, "People, let's have a discussion here, what do you think about this? What do you think about this? My thoughts are this, but what are your thoughts?" So, let's work together, encouraging people to be able to buy into the idea. Because this idea of holding a sledgehammer, "If you don't do it, I'll suspend you," it doesn't really help. I want people to love their jobs just as much as I love my job". (Professional nurse educator) (*Participant 3.1)

There was also sense of frustration amongst some respondents about attending physical health care training during their shifts due to excessive workload and busy nature of the ward environment. To overcome the problem of continuing professional development (CPD) inhibiting time constraints, there was strong support amongst participants for physical health care continuing professional developments to be undertaken outside of their normal shift or study days be dedicated for training. A practice development nurse even argued the necessity of nurses taking time off the busy ward environment for training to allow staff to take a breather from the stressful ward environments for their own well-being. Mental health nurses who perceive a positive training and work environment are more likely to show readiness to learn and attend training.

> *"So for me, having spaces away from the wards, even if people aren't learning in that moment, it means they then associate with you with the person that's taken them away from that stress and allowed them that period to breathe so that when I go round to*

the teams and I go "Oh, it's you, they see me and associate me with "oh, I remember that I went to a training with you and facilitate it." (Practice Development Nurse) (Participant 3.5)

Physical health care continuing professional development (CPD) trainings were not accorded the same priority as mental health CPD and there was a sense that more could be done in terms of devoting time and resources and achieving parity with mental health CPD programmes. The spectrum of training opportunities is not at a par with other risk areas such as management of violence and aggression which is often seen as bigger risk factor for patients and staff. Whilst the trust studied had made it it mandatory to attend Prevention and Management of Violence and Aggression (PMVA) training and up to five study days are dedicated for this training, the training to develop physical health care competencies appeared as ad hoc, with staff having to relieve one another to attend training.

"*We need to do the training in the appropriate way. I think this idea that staff come to work, go upstairs and train, come back to work and all that, to me it's not… if you want to do training, let's do it. They are not coming there to come and relieve other staff to go and do training. If you look at things like Prevention and Management of Violence and Aggression [PMVA] training, those ones are done properly; they are taken out, they are dedicated days; full training is still done properly." (Ward manager)* (Participant 2.1)

A lot of physical health care training appeared to be provided more in response to serious physical health care incidents, complaints or unfavourable inspection reports suggesting a

culture of organisation being reactive rather than being proactive in provision of training in physical health care for patients.

"I think we did training for choking and for wound dressing. But that was in the background of outcomes from serious incidents, so if something serious doesn't happen, would the training have happened, or is it something that you would have looked for? So, it was helpful to know that this is what you do when a person is choking, what is the aftercare required." (Clinical Charge Nurse) (Participant 1.5)

Participants' experience regarding the limited role played by ward managers in encouraging mental health nurses to embrace training were common. Pretraining support provided by managers is vital in influencing motivational attitudes towards training and attendances. The NHS trust studied provides training for life saving interventions including Immediate Life Support (ILS), however, attitudes towards simulation exercises organised on acute mental health wards vary leading to avoidance of the exercises and subsequent deskilling. Mental health nurses' motivation decides whether they attend training, efforts they make to learn training content and whether they choose to transfer training contents and skills to day-to-day practice.

> *"The challenges are always the same really, for me as a practice development nurse, the challenges are always the same, and that is about getting a group of people together at the same time. That's what I'm going off to do this afternoon, and I'll either have 15 people or I'll have two, and as a practice development nurse, I've organised the room, I've got the equipment, I've got someone who's jointly*

facilitating the session with me, I've got the presentation ready, and I hope I'm going to have 15 people there, but it's also possible I will only have two." (Practice development nurse) (Participant 3.2)

4.6 Theme: The influence of mental state: They tell you that, "I don't need it; I don't think anything is wrong"

The role and influence of the service user/patient in the delivery of physical health care is outlined in this theme. The influence of service user mental state is examined. Reluctance and lack of motivation of service users to engage in physical health care assessments and interventions are explored. The necessity of nurses' role in educating and importantly motivating patients to engage and change attitudes towards physical health care is also reviewed.

4.6.1: Patient mental state is unsettled: "physical health investigations are delayed until we are able to get patient to a baseline mentally"

Patient centred care involves working collaboratively with patients, carers, and family members. Patients need to be supported to make autonomous choices and decisions about their care and treatment. This can be challenging if patients are acutely unwell and lack insight into mental and physical health problems. There was a sense amongst mental health nurses that treating the mental disorder was paramount when patients are acutely unwell overriding the nurses' desire to supporting patients in making autonomous decisions about

their care and treatment. Patients may become more responsive to nursing interventions when treatment for mental disorder is initiated or established, and mental state gradually improves.

> "Sometimes *when they are admitted they are mentally unsettled, so for us to be able to step in and carry out all those physical investigation aspects is sometimes a bit delayed and difficult until we are able to get the patient to a baseline mentally, and that's when we are able to carry it out. "(Clinical Charge Nurse)* (Participant 1.8)

One of the challenges is sometimes distinguishing between what is causing what in terms of mental and physical health. Patient may be confused or may have communication problems where they cannot express that they are unwell, or something is wrong. Patients with dementia may be repetitive and sometimes they cannot even remember if they have opened their bowels so monitoring and completion of bowel charts would be important. Even with working age adults, depending on how acutely unwell they are, may be unable to clearly communicate, it may be side effect of medication, and they are unable to communicate that and nurses knowing the side effects of medication becomes critical. Patients can also present with delirium, and the underlying cause could be a physical cause such as urinary tract infection. It is important to rule out any possible underlying physical health cause for patient's presentation.

> *"So it's not about guesswork, but thinking about have you ruled out urine infection, have we called the doctor to see the patient, maybe do bloods, so they can also rule out infection, and then at least we know what we're dealing with. So that's one of the challenges." (Clinical Charge Nurse)* (Participant 1.5)

4.6.2: Reluctance to engage: "We are basically chasing them to come and do their blood pressure"

Patients may refuse physical health care or monitoring and may be difficult to engage with during the period of their admission. Some may not even have access to services in the community and when they come to the wards, screening and monitoring may reveal certain conditions such as diabetes or hypertension. Patients may not see the importance of what professionals are doing for them or see it as a concern. Without screening or monitoring of physical health, problems may go unnoticed and interventions unlikely or difficult. The challenges increases especially when they are voluntary patients with rights to accept or refuse treatment for mental and physical health problems. Even for patients detained under the Mental Health Act of 1983, the provisions of the Act applies to the assessment and treatment of mental disorders.

> "*Most of our patients just kind of overlook their physical health. We are basically chasing them to come and do their blood pressure, they tell you that, "I don't need it; I don't think anything is wrong".* (Ward Manager) (Participant 2.1)

Developing a therapeutic and trusting relationship with patients is important in improving motivation and this takes time and skill on the part of the nurses. Encouraging patients, making them feel valued and cared for helps with establishing rapport. With patients, giving them time to delve into their stories or come back if necessary is vital as patients whose mental health is not stable may not necessarily be ready to talk at the first, second or third interaction. It is about having the patience to pursue their journey with them. Developing

therapeutic alliance is the basis for standardised assessments, application of psychosocial interventions, psychological and physical health interventions

> *I think there was a patient with eating disorders once, I think their care was managed very well, there is always someone to encourage, whoever is doing one to one was encouraging, "Oh, just a sip of water, just a bite of this," so by the end of four hours, they've eaten a sandwich, but they haven't realised they've eaten a sandwich, so that helped. (Clinical Charge Nurse)* (Participant 1.5)

Family involvement was seen as crucial as most patients tend to trust their family members and would listen to them. In acute in-patient care, family and carer involvement is fundamental to patient centred care planning, obtaining collateral information, establishing baselines of patients and relapse prevention.

> "*I remember talking to one of the patients, and we tried to tell him that this is what we need to do and he said, "No, no, no, no". So, I said, "Oh let me speak to your daughter". And I phoned the daughter and he now say, "Okay. If my daughter say yes, all right then. I'll do it". So, they rely on their relative to give them guidance so sometimes we use that style on the wards. "(Clinical Charge Nurse"* (Participant 1.1)

A lot of focus is placed on improving awareness of patients about their physical health problems and preventive measures, provision of information and education to inform decision making by patients and shape motivations and priorities of patients. Information about health hazards and the importance of healthy daily lifestyle habits were regularly provided.

*"Always awareness We just have to keep going, making our patients aware of the importance of their physical health and so regular one to ones, regular encouraging our patients to engage in what we are offering" (Staff Nurse) (*Participant 1.6)

There needs to be a shift in focus from providing information and advice to what really matters for the patient. Even though some nurses relate the importance of motivational interviewing techniques in engaging service users with health risks such as alcohol and substance misuse, this was not recognised as relating to other physical health risk factors. Many participants were not trained in motivational interviewing techniques and there is a need for training to empower nurses to utilise these techniques. A holistic approach that considers other social determinants of health such as housing and poverty is crucial as these factors may impact the mental and physical health of patient. Working with patients to identify what factors are most important to prioritise for change is an important step.

Theme 4:7 Success of training: What does it mean to me?

The experiences and meanings of successful training varied across managers, trainers and nurses revealing contrasting perceptions. This was generally aligned with orientations for training, achievement of desired goals and being recognised for this.

4.7.1: "If training has been well received, I'd expect our dashboards to be green"

Some managers and trainers viewed training success through the reduction of adverse physical health care incidences, staff noticing or spotting the signs of a deteriorating patient early and avoiding emergency situations. It is also about nurses knowing how to deal with a concern and when and how to escalate.

> *" For example, if there's one patient that has some kind of physical health issue, if we can notice that early and we can resolve it or put in place the necessary things that we need to do to manage that, and then the patient does not deteriorate and then we don't end up with any kind of emergency, that's how we know that, "Yeah, we're doing the right things when it comes to the physical health." (Ward Manager)* (Participant 2.4)

> *"Obviously wider, a reduction in adverse incidents or serious incidents concerning physical health concerns and also to some extent, and this is a project that I'm going to be doing next year, a reduction in A and E attendances and A and E referrals from our unit." (Physical health nurse RGN)* (Participant 3.3)

Consistently achieving higher audit ratings with different types of audits that happen in the trust is perceived as success by managers. As part of quality assurance initiatives, the wards conduct internal audits and are also subject to trust wide audits in areas such as National Early Warning Signs (NEWS2), Malnutrition Universal Screening Tool (MUST) and post rapid tranquillisation monitoring. External audits including the annual Care Quality

Commissions (CQC) inspections are also carried out and achieving favourable ratings is utmost priority for the NHS trust.

> *"That was the same thing that happened with our red bags. We did audits over time, so we saw that were failing… so we started doing trainings on the red bags. The audits have been improving but not fast enough. So, the trainings have been intensified. And the audits will also outcome the success of whatever decisions you are putting in place." (Ward Manager)* (Participant 2.1)

The way in which a manager spoke about the strong connection between high audit ratings and training being well received and understood by nurses was more suggestive of a task based oriented approach and tick boxing exercise rather than focusing more on attitudinal and motivational changes towards physical health care.

> *"For me, if you are a manager, that training has been well received and understood and taken on board, I'd expect our Commissioning for Quality and Innovation (CQUINs) and our dashboard to be green, so because with the physical health matrix that we measure here at [name of trust]NHS Foundation Trust, our recording has to be above 80%, so if it's green and above 80% and then I say the nurses understand that you record physical health, you enter it in correctly, you respond where there's issues, for example, your NEWS2." (Ward Manager)* (Participant 2.3)

A modern matron indicated that the success of training is viewed through staff meeting all the physical health competencies to do with physical health compiled by the trust to provide a

service that looks after physical health. This suggested a focus on the number of mental health nurses successfully completing training in physical health competencies as opposed to motivational and attitudinal changes towards physical health care. Good training should be able to change motivations and attitudes towards physical health care with wider implications beyond the nurses attending training as they may be able to influence colleagues and junior members of staff.

> *If staff are fully competent in all the physical competencies, when I see, the day will come when I hopefully see a completed Excel file of all the staff and all the ticks with all the competencies. That's another success*. (Modern Matron) (Participant 2.2)

Managers and trainers also viewed success of training through visual means and observations of practice. Staff holding regular wellbeing sessions, giving good handovers in huddles and Multidisciplinary team (MDT) meetings, regular community meetings, giving feedback to patients about the physical health needs about smoking would indicate success.

> *"I will consider success if I see our Band 4 doing regular clinics. So, I would imagine that in these physical wellbeing clinics, they will be checking all the physical health parameters of all our patients and also advising them on smoking cessation and things like that." (Modern Matron)* (Participant 2.2)

> *"So, another way I would be satisfied that they've had good training is they give a good handover, they give a good description, they give a good management plan, they tell you how they escalated that physical health." (Ward manager)* (Participant 2.3)

"So for instance, if I'm looking at physical health competences, I will then be going round to see whether or not, if I'm doing a train a trainer, whether other staff on the ward that I haven't trained have got the level of knowledge that I have originally passed on. So, I suppose going back and testing the knowledge and see if it's actually being used in practice." (Practice development nurse) (Participant 3.5)

4.7.2: "The dressings haven't just been left for me to take down"

Mental health nurses taking a more proactive approach in trying to manage physical health concerns and staff not coming up with the same concerns was perceived as success. The NHS trust studied has organised training sessions on the physically deteriorating patient and resuscitation bag and equipment. Ward management and staff are happier with the management of the kits and improvements in audit results. Having purposeful training that fosters confidence and attitudinal changes is fundamental.

"So if I go onto a ward and I mentioned diabetes wound management a lot because it's the majority of what I do from a physical health point of view and the nurses have already tried to assess a wound for example before I come in, the dressings haven't just been left on for me to take down for example, so a bit more of a proactive approach." (Physical health nurse RGN) (Participant 3.3)

The trust has recently increased basic life support training to immediate life support and there are indications that nurses are reflecting and thinking about their training and not just phoning

for an ambulance but undertaking their own assessments and making judgements. This is an important perceived change in attitudes and behaviours towards the management of a physically deteriorating patient.

> *"So what I'm seeing as practice development nurse is that before people would deteriorate physically and they would go straight for the ambulance or the doctor but now what we are seeing, not in floods but it's starting to trickle through as more people do their training is that when they do the data so if someone has to be transferred they're writing down their assessment, so they're writing down the output measurements so they're writing down and demonstrating that they've learned something and they're actually carrying it out in practice*." *(Practice development nurse)* (Participant 3.4)

Managers also reflected positivity in relation to training around management of anaphylaxis which was arranged in response to incidents relating to difficulties managing a patient admitted to an acute ward with allergies to peanuts and apples. There was panic and anxieties amongst staff in the unit dealing with this patient who had lots of allergies and the physical health nurse RGN was contacted to organise training for staff.

> *Yeah, because after we delivered that training, the nurses were a lot more confident and they felt a lot more confident to manage if we were to have anaphylaxis, and they were also a lot more able to, like, when you would talk to them about it, they were a lot more able to recognise the signs, which before that training, they didn't really know what kind of signs they would be looking for if a patient went into anaphylaxis. (Ward manager)* (Participant 2.4)

4.7.3: "The training helps you identify that this is a physical health and not a mental health presentation"

Mental health nurses viewed success as being able to meet the holistic needs of patient and achieve valued outcomes. Some mental health nurses viewed training success as being able to distinguish between physical health symptoms manifesting as mental health symptoms and vice versa.

> *"Sometimes we admit patients with psychotic presentations; they bring them to emergency department, and they assess, "This is psychotic symptoms; transfer to the mental health ward unit". They get here, we study them, we do the urinalysis and everything, and we realise that is an infection, this confusion is caused by an infection. The training they provide helps you to even identify that this is physical health and not a mental health presentation or not a mental health… you know? (Clinical Charge Nurse)* (Participant 1.8)

Mental health nurses reported feeling more confident and competent to engage in physical health assessments and interventions following training. For example, nurses felt more confident using manual blood pressure machines and use of various medical equipment including items in resuscitation bag. Nurses reported feeling more knowledgeable about management of common physical health comorbidities including diabetes and hypertension following training. Positivity was not only related to face-to-face training but also related to online training via the NHS Trust website, self-tutorials, and experiential learning.

I didn't even know, to be honest, when someone has diabetes and at times, the blood sugars are high, we also need to take into consideration to check ketones as well. I didn't know the range of ketones; we just had been doing the BMs only. From the time I had that training, I know that if someone is diabetic, there is also a need to consider checking their ketones. *(Clinical Charge Nurse)* (Participant 1.2)

I have attended some online trainings where they go into depth of, "This is the type of wound, this is the type of dressing that we use. These are the challenges you will face as a non-clinician," because if you're not trained in wounds, we don't know how to grade the wound, how to describe the wound, you wouldn't know a lot of things that you need to do, to see is it increasing or is it getting worse. (Clinical Charge Nurse) (Participant 1.5)

To avoid become deskilled, it is important for nurses to undertake regular refresher training. With lifesaving interventions such as Cardiac Pulmonary Resuscitation (CPR) it is not just about competence, but it is about confidence. It was also understood that nurses lack the confidence because they do the training once every two years and few weeks after training, they most likely retain less knowledge and skills that have been imparted to them unless they have been practising or face real life situations. The drop the dummy exercises (CPR simulation using dummies) introduced in the inpatient units was about simulating real life situations and maintaining readiness, competence, and confidence. However, motivations and attitudes towards the dummy exercises vary and it is about understanding why some staff

avoid the exercises and how they can be motivated to attend. Rather than view the exercises as a process, it is about staff buying into the initiative and taking ownership.

> *"Skills are meant to be used in practice, from time to time. So yes, I will, I will be recommending like refresher courses if on a yearly or two-yearly basis. Just to touch base with where your skills are at or where you have left them to pick them up from there". (Staff Nurse)* (Participant 1.6)

> *"All of them need to be doing so many drop dummies a year; when they've done the drop dummies, it's usually the same people that turn up. And you go, "Oh, that's great," because they are developing skills and I'm glad about that, but there's also people that don't turn up, and they're the ones that are going to be on night duty when something kicks off and they've not had any practise and they don't know what they're doing." (Practice Development Nurse)* (Participant 3.2)

4.8 Conclusions

The findings from the qualitative interviews have been presented here. The findings included the narratives of the participants about their experiences; the meaning attached to their experiences and my (researcher) interpretation of their experiences. In the next chapter, the findings will be discussed in relation to wider literature, systematic literature review chapter, relevant policies and theories. The next chapter will also consider strengths and limitations of the empirical research, recommendations for policy and practice, reflexivity statement, issues of rigour, and directions for future research.

Chapter 5: Discussion

5.1 Introduction

The purpose of this discussion chapter is to explore how the findings of this study are positioned, comparing and contrasting them with wider literature and systematic literature review chapter. The aim of the empirical study was to explore the experiences and perceptions of key stakeholders (mental health nurses, managers of mental health nurses and trainers) in relation to: (a) the provision of physical health care to inpatients with serious mental illness and (b) training in physical health care provided to mental health nurses. A systematic literature review (chapter 2) was initially conducted to synthesise available qualitative evidence on the perceptions of key stakeholders (mental health nurses, managers of mental health nurses and trainers) to enable an understanding of training needs and why and how physical health care training for mental health nurses may or not work. Gaps were identified and the review findings informed the research aims and design of the empirical study. In this study, the empirical research refers to the qualitative study that has been conducted.

5.2 Summary of main findings

Four themes were constructed from the empirical research. (1) Culture of care and sense of competence: **"**Oh yeah, they asked me to do blood sugar. I told them I'm not there for the physical health, I'm there for the mental health**"** (2) Promoting professional autonomy : "Training went to waste; it's all left to the doctors" (3) Influence of mental state: "We are

basically chasing them to come and do their blood pressure, they tell you that, “I don’t need it; I don’t think anything is wrong”. (4) Success of training: what does it mean to me?

The findings of this study revealed a gulf in focus between mental and physical health care. There was a culture in the organisation that prioritised mental health over physical health care. Mental health nurses viewed their role predominantly as providing mental health care as opposed to providing more holistic care that also encompasses physical health care. Mental health nurses felt underprepared and expressed anxieties, fears, and uncertainties about their physical health care role. In addition, the findings revealed mental health nurses’ frustration about physical health care provision in the organisation that appeared to be medically led and the lack of supporting conditions and structures that gives them the confidence to take charge of their choices in relation to providing holistic care. The influence of time and environmental constraints were seen as pivotal in enabling or hindering the abilities of nurses to practice autonomously in providing patient centred care. Continuing professional development for physical health care were not accorded the same priority as mental health care continuing professional development. The spectrum of training opportunities was not at a par with other risk areas such as management of violence and aggression which is often seen as bigger risk factor for patients and staff. The analysis also revealed the influence of service users’ mental state and motivation in influencing the delivery of physical health care.

Participants’ accounts of training success varied across managers, trainers and nurses revealing contrasting perceptions. Managers and trainers’ perceptions of success appeared to be more focused on the reduction of adverse physical health care incidents, favourable audit and inspection results, and the number of mental health nurses completing physical health

competencies, as opposed to attitudinal and motivational changes towards physical health care. Mental health nurses viewed success as being able to meet the holistic needs of patient and feeling more confident and competent to engage in physical health assessments and interventions. In terms of training needs, nurses felt out of their depth in dealing with physical health co-morbidities and identified areas for upskilling. The support from an in-patient physical health lead nurse (RGN) was seen as crucial in upskilling nurses, providing a source of expertise, and supporting practice. In advocating for the role of a physical health nurse (RGN) in mental health, there is a ceiling of care that appears expected of mental health nurses by managers and trainers with regards to their physical healthcare role.

5.3 Discussion of key findings

In this section, the findings of the study are compared and contrasted with wider literature and the systematic literature review chapter. The discussion also draws on literature on theory and policy that are pertinent to the study findings. Noe and Colquitt (2002) theoretical model of training effectiveness is reflected in the context of the study findings. The areas that will be the focus of discussion include: (a) the role of supporting conditions in promoting professional autonomy (b) division of mental and physical health care role: task-oriented vs patient centred care. (c) foundational issues underpinning nurses' sense of competence.

5.3.1 Promoting professional autonomy

The focus of the theme 'Promoting professional autonomy' underscores the importance of supportive social conditions that foster individual autonomy and the real making of choices by professionals. This broadly aligns with the views of feminist scholars such as Susan Sherwin and Anne Donchin (MacDonald, 2002) who explicated that supportive social conditions foster autonomy and individual autonomy is socially constructed and dependent upon our particular social relationships and the power structures in which we are embedded (Balasi et al., 2022; MacDonald, 2002). An individual's ability to practice autonomously depends on features of the healthcare institution including an enabling practice environment which supports autonomous nursing for example, adequate staffing, without which their abilities to meeting professional standards will be compromised (MacDonald, 2002).

The findings from the systematic review chapter (2.4.2) and present study identified work climate as prime influencing factor on the ability of mental health nurses to practice autonomously in providing patient centred care. The findings from systematic literature review (chapter 2.4.2) indicate that excessive workload, time constraints and inadequate resources were perceived as organisational barriers/institutional constraints affecting the use of knowledge and skills gained during training. The findings of present study show that staff felt overburdened with excessive workload, staff shortages and limited time available to provide holistic care. When staff are faced with the multiple challenges of the acuity of the ward and excessive workload, physical health care become deprioritised in favour of mental health tasks. The findings are supported by other published studies which suggests that nurses

desire and ability to make autonomous decisions may frequently encounter barriers which may include high level of moral distress associated with heavy workload (Abdolmaleki et al., 2019; Pazargadi et al., 2015; Pursio et al., 2021); manpower shortages and large number of patients which reduces the nurses' time for communicating with patients (AllahBakhshian et al., 2017; Pursio et al., 2021); stressful work environment, lack of facilities and financial incentives affecting nurses' performance and motivation to pursue professional promotion (Balasi et al., 2022); and unsupportive managers (Balasi et al., 2022; Pursio et al., 2021). On the contrary, giving nurses' more space and freedom to practice (Balasi et al., 2022; Pursio et al., 2021); managers giving nurses positive feedback and support following optimal practice (Balasi et al., 2022; Pursio et al., 2021); and providing opportunities for regular and continuous updates to improve knowledge and practical skills (Balasi et al., 2022) may all contribute towards structures that support autonomous practice. This finding is also in line with Noe & Colquitt (2002) theoretical framework regarding work environment factors that influence learning and transfer of learning to the job. Obstacles in the work environment do not provide a positive climate for training effectiveness.

Feelings of frustration and helplessness were expressed in this study by nurses about difficulties and lack of opportunities translating training into practice. For example, nurses who received phlebotomy training were not finding opportunities to take bloods. This finding is comparable with findings from systematic literature review chapter (2.4.2) which contend that strong support and leadership from management were vital for transferring knowledge and skills from training. There were conflicts in the views expressed by nurses and managers about whose responsibility it is to ensure that training is implemented into practice. Managers felt that ward-based nurses had personal responsibility to seek out opportunities to implement what they have learnt into practice. This corresponds with the

concept of ‘opportunity to perform’ in Noe and Colquitt (2002) theoretical framework of training effectiveness. Noe & Colquitt (2002) contend that work environment factors including work climate, perceived fairness in decision making in the organisation, opportunity to perform tasks learned in training contribute to both learning and transfer of learning to the job. Time and opportunity should be provided for training and practising new skills. Opportunity to perform requires managers to give trainees the opportunity by assigning job experiences that enables the utilisation of training content (Noe & Colquitt, 2002). Managers need to work collaboratively with nurses to assess the degree of support required for learning and transfer of learning into practice. They also need to identify work related factors that impede translation of learning into practice. Opportunity to perform also requires trainees to also manage their learning actively by personally seeking out job experiences where they can utilise what they have learned in training (Noe & Colquitt, 2002).

It was found from my empirical research that some nurses upskill out of deep sense of commitment, satisfaction, personal growth needs and passion for their patient to equip themselves with knowledge and skills to provide holistic and integrated care. This finding aligns with Noe & Colquitt (2002) framework which contend that trainees who see that training is relevant to their jobs or careers, and value the outcomes of training (valence of training) are more motivated to train (Kraiger et al., 2004). Staff personal beliefs, experiences and prejudices were also found in the empirical research as influencing attitudes towards provision of physical health care and training. This finding also aligns with Noe and Colquitt (2002) theoretical framework of training effectiveness which contends that trainee beliefs and attitudes influence motivation to learn in training and trainees who perceive learning as useful are more motivated to train (Kraiger et al., 2004). However, contrary to expectations based on Noe and Colquitt (2002) framework of training effectiveness, there was no evidence from

the empirical study and systematic literature review chapter (chapter 2) that some individual trainee characteristics like age and cognitive abilities are important in influencing motivation to upskill, actual learning and transfer of learning to practice or job.

The findings from the present study suggest that important patient factors like acuity of mental state, amotivation and reluctance to engage with physical health assessments and interventions influences transfer of learning to practice. These findings also resonate with those of the systematic review chapter (chapter 2.4.6) which identified low motivation and service user mental state and capacity as barriers in integrating revised knowledge into practice. However, this finding did not translate into any of the concepts in the framework. It is therefore important that for mental health settings, this framework is adapted to include service user factors including acuity of mental state as factors influencing transfer of learning. In the light of this new theme, this framework is adjusted for mental health settings to include the influence of service user factors in translating learning into practice.

To practice autonomously, it is important for nurses to be appropriately skilled and knowledgeable. The findings of the systematic review (chapter 2) and supported by other published literature (Blythe & White, 2012; Walker & McAndrew, 2015) suggest that regardless of differences in pre-registration nurse education, there is a need for ongoing learning and updates to cement practice. The findings from the systematic literature review chapter (2.5.1) reported views amongst mental health nurses that their knowledge and skills in physical health care were insufficient and there is a need to overcome this gap. This is comparable with findings from the present study highlighting the need for upskilling in physical healthcare and attending regular updates and refreshers by mental health nurses. In

addition to appropriate educational preparation, there is a need for organisational, management support and adequate provision of resources (Blythe & White, 2012) ; a culture of care that equally prioritises physical and mental health care (Blythe & White, 2012; Dorey et al., 2023); opportunities for mental health nurses to maintain and develop skills and practice (Geoffrey L Dickens et al., 2019; Dorey et al., 2023; Hennessy & Cocoman, 2018; Walker & McAndrew, 2015).

The findings of the study show the impact of a physical health nurse (RGN) in mental health in one of the in-patient units. This extends current understanding as there was no data synthesised within the systematic review (chapter 2) that explored the role of a physical health care nurse in upskilling mental health nurses and developing their competence when working alongside them. The role of the physical health nurse (RGN) was seen as vital in training staff in developing physical health competencies including National Early Warning Signs (NEWS2), Malnutrition Universal Screening Tool (MUST), assessing cardiometabolic risk factors, wound care, managing anaphylaxis, management of complex diabetes and staff being able to recognise and respond to physical health deterioration of service users .The attitude towards this role was positive with nurses, managers and practice development nurses describing the role as valuable in terms of being a great asset, source of advice, consultation and in upskilling nurses. A UK study exploring in-patient nurses' views of physical health monitoring underscored the importance of having a link physical health clinician in in-patient units for support, updates, and advice (Mwebe, 2017). Similar clinician roles have been implemented in Australia including a cardiometabolic health nurse. This role has been suggested as strategy for ensuring that patient centred care is provided and embedded in practice (Happell et al., 2015).

A concern from current study is the added financial costs of such a role (Physical health nurse RGN) and a risk of role confusion. Similar concerns have also been expressed in studies evaluating the role of the cardiometabolic health nurse in Australia including a risk of fragmentation and encroachment on comprehensive nursing (Happell et al., 2015; Happell, Scott, & Platania-Phung, 2013); added financial costs of the introduction of new roles (Happell, Scott, & Platania-Phung, 2013); other nurses taking less responsibility leading to de-skilling (Happell, Scott, & Platania-Phung, 2013) ; and potential for role conflict and confusion (Happell et al., 2015). It is therefore imperative that the physical health nurse (RGN) role is incorporated carefully in acute in-patient mental health settings so that responsibility for providing physical health care is still retained by every member of the team. There is a need to provide better understanding and clarity of what nurses are expected to deliver in their role and an open and honest conversation about expectations and commitments. There needs to be clear communication from the outset that the role of the physical health nurse (RGN) is to support and not to take over physical health responsibilities.

5.3.2 Division of mental and physical health care role (task-oriented vs patient-centred care)

The focus of the theme-Culture of care and sense of competence: “Oh yeah, they asked me to do blood sugar. I told them I'm not there for the physical health, I’m there for the mental health” reflects a task based oriented approach in the organisation towards care as opposed to patient centred care, a culture of separation of mental and physical health care role and the

prioritisation of mental health tasks over physical health care. Patient centred care is a flexible approach to patient care which is tailored to meet individualised needs and enhancing the quality of healthcare and achieved by working in partnership with patient and families in the delivery of healthcare services (Delaney, 2018). Patient centred care is based on the paradigm of holism which sees service users as a biopsychosocial and physiological whole (Delaney, 2018). Care provided to mental health service users should be multifaceted encompassing physical, psychological, social, cultural, and spiritual needs.

This finding is comparable with the results of studies of general nurses in accident and emergency departments which found a culture of physical health care tasks and needs being prioritised over fundamental care tasks including communication and the establishment of therapeutic alliance with patients , psychological and psychosocial needs (Pavedahl et al., 2022; Peart et al., 2023). Mental health nurses in present study expressed anxieties and fears about providing physical health care and they may use avoidance or defer responsibility to someone else to deal with situations they perceive as challenging. The findings correspond with the experiences of general nurses regarding feeling anxious and hesitant when dealing with patients with mental illness (Peart et al., 2023; Ryan et al., 2021); feeling unqualified, lack of educational preparation, knowledge about how to deal with mental health patients and discouragement about ongoing educational opportunities (Clarke et al., 2015; Gerdtz et al., 2012; Peart et al., 2023; Plant & White, 2013) .

The findings of this study extend current understanding by showing that staff attitudes towards physical health care provision were also influenced by personal beliefs and prejudices. For example, staff who experienced or suffered bereavement from physical illness

such as Covid 19 were more motivated and had positive attitudes in dealing with physical health co-morbidities because of such experiences. Staff uptake of Covid 19 vaccinations during the Covid 19 pandemic were also identified as influenced by personal beliefs. Findings from the systematic literature review did not identify personal beliefs and prejudices as influencing factors in shaping attitudes towards provision of physical health care and training. This finding corresponds with the concepts central to Health Belief Model which is a theoretical model that explains health behaviour by understanding one's beliefs about health. The model suggests that the probability of a person taking action about a health-related problem depends on the interaction between four types of beliefs. Individuals will take action to promote or protect health if they perceive that that they would be vulnerable to a condition or problem; they perceive that it might cause serious harmful effects; they believe that there are actions that might be taken to minimise the effects; and they believe the pros outweigh the cons of taking action (Cragg et al., 2013).

The present study also revealed a gulf in focus in the organisation between mental and physical health care and a culture that gives priority to mental health over physical health. Continuing professional development was seen as integral by participants in providing patient centred care. However, continuing professional development for physical health care training was given less priority compared to physical health care training. Most of the training in physical health cared delivered by the organisation were often perceived as reactive instead of proactive. Individual and organisational factors hampered their abilities to provide care that meets the comprehensive needs of the patients highlighting the need for training and support. This finding is comparable with the findings of the systematic literature review chapter (2.5.3) which highlighted the importance of organisational support and healthcare systems including embedding physical health screening and monitoring practices into the

culture of organisations via training. Staff in mental health settings are required to meet patients' mental as well as physical health care needs and healthcare professionals should be equipped with the necessary knowledge and skills to deliver physical health care (Care Quality Commission, 2020). Best practice guidance in reducing physical health inequalities in mental health settings include regular assessment of physical health needs including screening, interventions, monitoring; preventive strategies and improving accessibility to healthy options such as smoking cessation programmes, provision of nutritionally balanced meals, physical activity and ongoing support to maintain engagement (Care Quality Commission, 2020). Organisations may perceive and prioritise training needs differently and some may consider risk assessments, management of violence and aggression as more pressing educational needs (Blythe & White, 2012) reflecting a culture of de-prioritisation of physical health care. Indeed, the participants in current empirical study highlighted a cultural shift in post rapid tranquillisation physical observations monitoring following a period of sustained drive and push by the organisation to improve practice in this area. The added impetus was on the background of unfavourable inspection report and post rapid tranquillisation physical observations monitoring was identified as pressing training need for nurses. Barriers to physical health care training may also include lack of staff interest and motivation, lack of CPD days, time, funding problems and lack of participants to attend training. Participants advocated for protected study time so that it does not impinge on normal working hours. Numerous practices were highlighted that motivated staff towards upskilling including improving awareness of training that is available, flexibility around the rota, managers' sourcing and arranging for training to be delivered on the wards and giving nurses' champion or lead roles in physical health care resulting in a sense of empowerment and ownership.

Success of training in physical healthcare training was often assessed by managers using measurable procedural proficiencies, audit reports, dashboards and ticking off physical health competencies instead of focusing more on attitudinal and cultural changes that are fundamental to providing patient centred care. Developing therapeutic relationships with patients is fundamental to providing patient centred care, assisting with behaviour and lifestyle change and should be seen as a conduit through which the physical health care of service users could be ameliorated but this is often sidestepped in favour of procedural proficiencies (Warrender et al., 2023). It can also be argued that having a positive attitude is linked to confidence and competence and for this to happen there should be post registration training and opportunities to practice for mental health nurses to maintain and develop their knowledge and skills (Walker & McAndrew, 2015). Success of post registration training in the empirical research was also viewed by physical health nurse RGN in terms of attitudinal changes such as nurses becoming more proactive in managing physical health concerns. For example, nurses attempting to assess wounds of patients with complex diabetes in the first instance instead of immediate escalation to physical health nurse RGN to take dresses down. For training to be considered successful, it should not only improve knowledge and skills but also result in attitudinal and cultural changes that supports patient centred care.

5.3.3 Foundational issues underpinning nurses' sense of competence

Concerns were articulated by mental health nurses in this study about the level and scope of their initial nurse education. Such foundational issues influence the nurses' sense of competence in providing high-quality holistic care that responded to physical health needs of patients. Such limited preparation hindered their ability, skills and knowledge to provide holistic care. Participants account of lack of preparedness suggests a threat to their abilities to

develop a sense of competence in providing physical healthcare. There was a sense from the participants in this study that the educational preparation for the recently introduced nursing associate role in the NHS trust is more suitable to address the challenges of physical health care. This feeling further highlights foundational issues that underpins the nurses' sense of competence to address physical health care needs of patients in in-patient mental health settings. This includes foundational theoretical knowledge and clinical practice in physical health care. The sense of better educational preparation to deal with physical health care challenges was attributed to the generic nature of the nursing associate programme.

The findings from current study show that the positive attitudes, and skills in relation to physical health care the nursing associates bring into acute in-patient mental health settings once they are qualified outweigh the knowledge and skills in physical health care that the newly registered mental health nurses (RMNs) bring in. This is a particularly important finding given that pre-registration education for mental health nurses follows a specialism approach in the UK. The nursing associate programme is a two-year foundation degree, and a registered mental health nurse (RMN) education is a degree programme undertaken over three years or post graduate diploma/MSc undertaken over two years.

Preparation for mental health nurse pre-registration education in many Western countries broadly adopt either a generic (comprehensive) or specialism approach with countries adopting one of the two approaches. The UK is one of a few countries in the Western world including Ireland, Malta and some provinces in Canada adopting a specialism approach (Blythe & White, 2012; Fealy et al., 2009; Lakeman et al., 2024; Robinson & Griffiths, 2007; Walker & McAndrew, 2015) . There has been wide debate in the empirical and policy

literature as to the merits and demerits of each model. In the UK, the specialism model allows direct entry to different branches of nursing including adult nursing, child, mental health and learning disability. The main thrust of this model is that from beginning to the end, students undertake specialist preparation in one of the branches of nursing and upon completion may only practise in the speciality area in which they are registered (Grant, 2006; Happell et al., 2015; Walker & McAndrew, 2015). Countries such as Australia adopt a generic model of nurse education with students entering a common foundation programme in which they study shared elements up to the point of registration and theoretically are equipped to work in a variety of settings because of their breadth of education (Grant, 2006; Happell et al., 2015). Specialisation as a mental health nurse in Australia requires education at post graduate level even though achieving this certification is not mandatory and many mental health nurses working in mental health services do not have this additional certification (Happell et al., 2015).

Evidence from the current empirical study shows that the registered mental health nurses (RMNs) in this study who were all UK educated nurses felt underprepared to deal with the challenges of providing physical health care. They attributed this mainly to inadequate pre-registration educational preparation. Existing UK research exploring the role and preparedness of mental health nurses in the UK to address the physical health care needs of patients with serious mental illness supports this finding (Blythe & White, 2012; Howard & Gamble, 2011; Mwebe, 2017; Robson et al., 2013). Blythe and White (2012) integrated review of UK literature highlighted that too few nurses had the skills and knowledge to recognize and manage cardiometabolic disorders and that mental health nursing curriculum needs to change to address the deficits in physical health care knowledge and skills. Mental health nurses had varying levels of confidence in assessing cardiometabolic risk factors and

the need for ECGs, assessing sexual health, and checking blood results for prolactin levels (Howard & Gamble, 2011); lack of knowledge of mental health nurses in conditions like diabetes and cardiovascular diseases was seen as a hindrance in provision of physical health care (Blythe & White, 2012; Dorey et al., 2023; Howard & Gamble, 2011; Mwebe, 2017; Nash, 2009; Robson et al., 2013); and perceived training needs in reproductive health and to assist in discussions about smoking was underscored (Robson & Gray, 2007).

In Australia, proponents of comprehensive nursing education argue strongly that in addition to producing graduates with skills that are applicable in a variety of settings, it also improves outcomes for patients with mental illness and physical health comorbidities (Hogan & Shattell, 2007; Wand & Murray, 2008). There have been moves in the UK towards genericism in nurse pre-registration education in part that it will resolve the problems of providing holistic care amidst criticism of the National Health Service (NHS) failing to meet the physical health needs of people with serious mental illness (Walker & McAndrew, 2015). Health Education England commissioned an independent review of pre-registration nurse education resulting in the Willis (2015) Shape of Caring Review in UK which suggested reform to pre-registration nurse education . It suggested a more generic set of skills that will adequately prepare nurses for the challenges of providing holistic care. It recommended that nurses undertake two years of generic or core education and a year of specialism in their chosen field which could be adult nursing, mental health, learning disability, or child nursing. In response to the shape of caring review, the UK nursing regulatory body Nursing and Midwifery Council (2018) developed its Future Nurse Standards of Proficiency designed to be utilised across all the fields of nursing which were predominantly influenced by the recommendations of the Willis (2015) Shape of Caring Review.

Critics of the move towards genericism in the UK argue that the Nursing and Midwifery Council (2018) proficiencies can be interpreted in different ways by higher education institutions and different curricula are all seen as satisfying the NMC standards (Warrender et al., 2024; Warrender et al., 2023). There are concerns that the practice assessment documents used during students' clinical placements may be irrelevant and critics have highlighted discrepancies between their roles in clinical placements and the proficiencies set out in the assessment documents (Evans, 2023; Warrender et al., 2024; Warrender et al., 2023) . One of the major concerns regarding the move towards genericism in the UK is that the generic content of the educational programme (it is recommended that nurses undertake two years of generic education and a year of specialism in their chosen field which could be adult nursing, mental health, learning disability, or child nursing) is geared towards adult nursing and not adequately contextualised to mental health nursing (Haslam, 2023; McKeown, 2023). In essence this has led to a bias in favour of adult nursing with more adult nursing content and less mental health education for students. It has further been argued that the move towards genericism (two years of generic or core education and a year of specialism) across UK Nursing and Midwifery Council (UK nurse regulatory body) standards has resulted into the dissolution or loss of the mental health nursing identity and substandard level of knowledge and skills in mental health care (Connell et al., 2022; Lakeman et al., 2024; Warrender et al., 2023).

The findings of the empirical research regarding the generic approach of education for nursing associates appears to provide support to the argument that generic content in UK nurse education may benefit the delivery of optimal physical health care. Nurses and

managers in the empirical research expressed frustration about doctors often taking responsibility for decisions about physical health care as they feel more comfortable with physical health care generally due to their generic education. However, mental health nurses spend more time with patients developing trusting therapeutic relationships and should therefore be well placed to deal with co-existing mental and physical health needs of patients (Walker & McAndrew, 2015). If holistic care and parity of esteem between mental and physical health care are to be realised, the contents of the curriculum need to be balanced carefully so that additional physical health content complements mental health skills and not at the expense of mental health content of the curriculum (Warrender et al., 2023). Some have even argued that it may not be possible to prepare nurses to provide true holistic care during three years pre-registration education as the already overstretched curriculum may warrant a four year programme (Warrender et al., 2023). Changes in pre-registration education are envisaged to enable mental and adult nurses become more adept at meeting the challenges of providing patient-centred care but this should be placed in a broader context in terms of shaping the delivery of physical health care by mental health nurses (Hemingway, 2016; Walker & McAndrew, 2015).

5.4 Impact of findings for policy and practice

Based on study findings, recommendations have been proposed for policy and practice to improve: (a) foundational issues in mental health nursing education (b) addressing workforce/staffing challenges (c) on-going training of mental health nurses to improve practice in physical health care delivery and (d) the provision of physical health care to patients with serious mental illness.

5.4.1 Recommendations for policy

- Mental Health NHS trusts to have a physical health care strategy that is approved at board levels with annual reviews and include measures to address physical health comorbidities and mortality in in-patient mental health settings (Care Quality Commission, 2020).

- It is important for nursing education that universities develop curriculum in which the learning outcomes and competencies acquired in university programme correspond with the skills required in work context (Virgolesi et al., 2020).

- It is recommended that Approved Education Institutions (AEIs) source and provide appropriate placement opportunities for mental health pre- registration students to develop and achieve physical health proficiencies. This is because the findings from this study indicate that mental health nurses have inadequate placement experiences and exposure to physical health care during pre-registration education.

- It is recommended that more nursing associate positions are created in NHS trusts to enhance skill mix (Warner & Zaranko, 2023).

5.4.2 Recommendations for practice

- Mandatory preceptorship programmes in mental health trusts for newly qualified mental health nurses to have more focus on physical health care to

develop their competencies in this area and to have it as an ongoing theme from induction.

- More nursing associate positions to be provided on acute in-patient mental health NHS wards to improve standards in physical health care delivery.
  - Managers to encourage and facilitate access to training via practices/initiatives including flexibility in doing rota to release staff for training; improving awareness amongst staff of training available; provide protected/supernumerary time for nurses to attend training so that it does not impinge on normal workings; prioritisation of funding for continuing development programmes.
- Sufficient registered general nurses (inhouse physical health nurse in mental health RGN) should be deployed within mental health care settings for provision of training and to ensure safe and competent care of those with physical health needs.
- Provide regular simulation training for mental health nurses to provide opportunities to practice skills and maintain readiness, confidence, and competence of staff.
- Provide a physical health skills lab or simulation room for acute in-patient mental health settings. Mental health nurses can be released to a workshop and supported by practice development nurses or inhouse physical health nurse RGN to practice for few hours at a time with a piece of equipment, dummy or someone to practice on. The skills lab will provide practice scenarios that mental health nurses might find challenging in real work situations and will be delivered in interactive and practical environments.

- Management and organisational support for transfer of training to workplace. Provide time and opportunities for mental health nurses to practice skills learnt in training for example ECG and Phlebotomy. This is because the findings from this study indicate that some nurses that have attended phlebotomy and ECG training are not finding opportunities to practice these skills.
- Implement Quality improvement (QI) projects on acute in-patient wards that target physical health topics/conditions such as QI for smoking, diabetes, NEWS 2 and 6-lead ECGs.
- The following areas were seen as areas of concern by participants in this study and hence should be prioritised for training: assessing skin integrity and wound care; management of patients with complex diabetes; recognising and management of serious allergies especially anaphylaxis; assessing cardiometabolic risk factors; setting up and managing routine ECGs and interpreting findings; and collecting blood samples (phlebotomy); identifying and responding to signs of physically deteriorating patient.
- In addition to guidance for physical health care in mental health settings, it is recommended that the acute and crisis directorates have a set physical health plan and strategy that will include a nurse led programme for physical health training.

5.5 Reflexivity Statement

My interest in researching physical health care for patients with serious mental illness has developed over many years. I have over ten years of experience working as a clinical charge nurse in acute in-patient mental health settings. In my role, I have experienced the challenges that mental health nurses experience in delivering physical health care for patients. As part of my continuing professional development, I completed a Master of Public Health degree, and my dissertation was focused on the effectiveness of weight management interventions for Atypical antipsychotic weight gain in Bipolar Affective Disorder. My attention was drawn to this area from my observations and experience of patients in clinical practice suffering from serious side effects of psychotropic medication including movement disorders such as akathisia, dystonia, tardive dyskinesia but importantly weight gain and cardiometabolic disorders especially associated with newer antipsychotics. It has always been my desire to enhance the physical health care of patients with serious mental illness. I also believe that nurses (frontline) are not solely responsible for physical health care of patients, and it is important for individuals with different responsibilities (managers, trainers and nurses) within the organisation to work together to ensure successful practices. The organization has a strong responsibility to support the nurses, and the environment strongly influences care practices.

The methodological approach of this study which is based on reflexive thematic analysis underpinned by hermeneutical phenomenological epistemology requires a reflexive stance as a researcher. Reflexivity provides the opportunity for the researcher to understand how his own background, experience and understanding of the world may influence the research

process (Binder et al., 2011). My years of experience working with service users with mental illness and physical health comorbidities acted as a solid backdrop to this research. Having a clinical background may have inclined me to navigate data collection and interpretation in a particular way such as expectations regarding the roles and responsibilities of the nurses. One of the challenges I faced was shifting positions from clinician role to researcher and back again. As an employee of the NHS trust, I was aware of my positionality as an insider researcher, the challenges of conflicting role of researcher versus clinician and avoiding excessive influence of researcher. I was viewed by some participants as a colleague as I shared similar work experiences with them and as an intellectual/scholar knowing my academic status. Being seen as a member of a group tends to result in quick acceptance, establishing trust, rapport and openness that might otherwise not have been present if seen as an outside academic expert brought in with the purpose of conducting a study or evaluating a situation (Chammas, 2020). This was reflected in the openness from the participants during interviews resulting in greater depth of the interviews and data generated. Being familiar with the organisation, I understood the local values, power structures, and the processes of obtaining permissions to facilitate the research process.

As part of the recruitment process, relevant approvals including Health Research Authority and University ethics committee approvals were obtained. Full information and explanation were provided to participants including right to anonymity and confidentiality. Consent forms were signed by participants before interviews were conducted. Prior to the interviews, I explained my role as a researcher differentiating between my role as a clinician and a researcher and furthermore re-iterated the voluntary nature of participation. My role as a clinical charge nurse was carefully considered during recruitment process to ensure that I did not have any supervisory role or evaluative role over any of the participants. I did not have any power or authority over any of the participants as power relations may influence the data

collection in research negatively (Chammas, 2020; Unluer, 2012). I also tried to be critical during my observations and interviewing and not take any events for granted as unquestionable truths (Unluer, 2012). In trying to confront my own blind spots and biases, I maintained reflexive diaries and fieldnotes recording some of my observations after each interview, my feelings, reflections, and thoughts and had regular supervisions and consultations with my research supervisors. I also had to deal with the assumptions made by some of the participants during the interviews that I already know, and I confronted this by asking participants to provide detailed answers and further made a distinction between my role as a researcher and a clinician.

On reflection, the research journey has been highly beneficial to my research skills, personal, professional, and intellectual growth. I have been able to navigate ethical dilemmas, conflicting values and confronting my own biases and preconceptions.

5.6 Strengths and Limitations

This study used a strong theoretical base to consider the factors influencing motivation to learn, actual learning and transfer of learning to practice (Noe & Colquitt, 2002). This qualitative research is the only known single study research exploring experiences and perceptions of key stakeholders (mental health nurses, their managers, and trainers) in relation to physical health care provision to patients in acute in-patient mental health settings and training provided to mental health nurses. A strength of this study draws from the multiple and broad range of perspectives of the participants enabling experiences to be

explored and evaluated from individuals with different responsibilities and viewpoints in the organisation (Seaman & Eves, 2010). The participants provided a rich and in-depth accounts of their experiences, attitudes and meaning assigned to their experiences and practices. Even though the sample size was relatively small, given the in-depth nature of the individual interviews and richness of the data, the sample size using a reflexive thematic analysis underpinned by hermeneutical phenomenology (as a paradigm) was considered appropriate and credibility of the study was enhanced. Hermeneutical phenomenology in this study was used as a paradigm and not a design. The sample size was also consistent with other studies (Binder et al., 2011; Sagen et al., 2013) that utilised thematic analysis underpinned by hermeneutical phenomenological epistemology. The sample size was also demographically diverse in terms of age, gender, positions, different grades of nursing staff and ethnicity. Even though participants of black ethnicity were more represented in this study, this reflects the greater proportion of black minority staff working in acute in-patient psychiatric wards in the geographical/catchment area where the empirical research was conducted (Bowers et al., 2009).The research was also conducted across three in-patient units in one single NHS Trust in England which may raise questions about applicability to other NHS Trusts or different settings. The researcher utilised purposeful sampling resulting in in-depth findings and collected thick description of data which enables comparison of this context to other contexts thus enhancing transferability (Anney, 2014).

Mwebe (2017) UK study also recommended that prospective studies explore the views of mental health nurses regarding the creation and expansion of the role of an inhouse physical health practitioner to support training around physical health care. The findings from the empirical research contributes towards the debate on the role and benefits of the physical health nurse RGN in acute in-patient mental health settings. Another strength of the study is

the rigorous, well-defined. established methodology and methods in conducting the research. A systematic literature review (narrative synthesis) was conducted to identify gaps in the literature, and this informed the research questions, aims, objectives and design. A rigorous reflexive thematic analysis was undertaken to ensure trustworthiness in the findings. An audit trail was maintained throughout which enabled the validation of data and accounted for how the researcher made choices about data collection, recording and analysis (Anney, 2014). The researcher maintained interview transcripts, utilised NVIVO software showing step by step process of reflexive thematic analysis, journals, field and supervision notes which are useful in crosschecking the inquiry process (Anney, 2014; Braun & Clarke, 2022b).

It is worth mentioning that participants in the empirical research may have known the researcher or the researcher's background given the researcher's employment in the organisation in which the study was conducted. It is possible that knowing the researcher or their background may have evoked some uncomfortable feelings and possible reluctance in sharing fully and honestly their experience. It is possible that some may have even been apprehensive of providing responses critical of the organisation knowing the researcher's employment with the organization. To mitigate against this, the researcher maintained a high level of professionalism, strict boundaries and avoided any overfamiliarity with the participants. One to one individual interview was conducted in a private space or via Microsoft teams allowing them to freely express their opinions and experiences. During recruitment, the voluntary nature of taking part in the research was re-iterated and researcher ensured that participants understood all the information on the participant information sheet. Participants rights to anonymity and confidentiality were reiterated throughout the research process. The researcher articulated the purpose of the research to the participants as an exploration of experiences that would serve to support the delivery patient care as opposed to

verdict of their practice. The researcher was reflexive about this and about how personal experiences, values, biases, perspectives and preconceptions may have affected data collection and interpretation of data (See reflexivity statement). Another limitation was that managers at more senior levels such as directors and head of directorates were not recruited, and their perceptions are important as they determine strategy, vision and planning for the organisation.

5.7 Suggestions for further research

This study utilised Noe & Coquitt's (2002) theoretical framework to facilitate our understanding of the individual factors, training environment features and work environment features that influences motivation to learn, individual learning and transfer of learning. It is recommended that future research examining perceptions of training needs and training effectiveness adopt this framework as it takes into consideration not only whether training works but why and how it works. The framework is helpful in interrogating and interpreting data. For mental health settings, the framework needs to be adapted to include the importance of service user factors.

Future directions of research may also include or consider the experiences of student nurses, nurse academics, patients, and carers who are also key stakeholders and may be affected by or effect decisions relating to the development of nursing curriculum. Future studies need to target and include managers at more senior level such as directors or head of acute and crisis directorates as they are responsible for setting strategies, prioritising funding and resource

allocation. Future research is required to develop and evaluate (using variety of approaches) educational interventions/training programmes provided to mental health nurses to improve physical health care delivery to patients with serious mental illness.

5.8 Concluding remarks

Research in the UK and internationally have explored the educational preparedness of mental health nurses in addressing the physical health challenges of patients with serious mental illness. The findings from current study indicate that foundational issues underpin the nurses' sense of competence to address physical health care needs of patients with serious mental illness. There is continued debate regarding the advantages and disadvantages of generic vs specialised pre-registration education of mental health nurses. The findings from the empirical research contributes towards this debate and extends current knowledge by showing that the registered nursing associate educational programme which is a generic (not specifically mental health or physical health) result in better preparation to deal with the challenges of physical health care provision in acute in-patient mental health settings compared with pre-registration education of registered mental health nurses in the UK.

This study also extends theory, for example, Noe & Colquitt (2002) theoretical framework of training effectiveness by showing that for inpatient mental health settings, it is important to understand the influence of service user factors in training effectiveness and highlights the importance of considering service user factors in designing and implementation of training. The findings of the empirical research resonate with the findings of the systematic literature review chapter (chapter 2.4.6) which indicate that important patient factors like acuity of

mental state, amotivation and reluctance to engage with physical health assessments and interventions influence transfer of learning to practice.

There is a need for continuing professional development for mental health nurses and findings from the empirical research show benefits regarding the creation and expansion of the role of an inhouse physical health practitioner RGN to support practice and training around physical health. This is an area that has been insufficiently explored and Mwebe (2017) recommended prospective studies to explore the views of mental health nurses regarding the role of a physical health lead practitioner to support inhouse physical health care training. The findings from the empirical research contributes towards addressing the knowledge gap.

Staff attitudes and motivations are important influencing factors in the delivery of physical healthcare and uptake of training. There are many factors that influence staff attitudes and motivation including feelings of personal responsibility, fulfilment, passion, personal growth needs, and valence of training (Jabbie et al., 2024; MacDonald, 2002; Noe & Colquitt, 2002). However, the results from the empirical research extend current knowledge by showing that staff attitudes towards physical health care provision are also influenced by personal beliefs, experiences, and prejudices. Recommendations based on the findings from this study have been made to inform practice, policy, and future research.

REFERENCES

Abdolmaleki, M., Lakdizaji, S., Ghahramanian, A., Allahbakhshian, A., & Behshid, M. (2019). Relationship between autonomy and moral distress in emergency nurses. *Indian J Med Ethics*, *4*(1), 20-25.

Abosi, O., Lopes, S., Schmitz, S., & Fiedorowicz, J. G. (2018). Cardiometabolic effects of psychotropic medications. *Hormone molecular biology and clinical investigation*, *36*(1), 20170065.

Academy of Royal Medical Colleges. (2016). *Improving the physical health of adults with severe mental illness: essential actions*. Royal College of Psychiatrists. Retrieved 03 July 2020 from https://www.aomrc.org.uk/reports-guidance/improving-physical-health-adults-severe-mental-illness-essential-actions/

Al-Ababneh, M. (2020). Linking ontology, epistemology and research methodology. *Science & Philosophy*, *8*(1), 75-91.

Alharahsheh, H. H., & Pius, A. (2020). A review of key paradigms: Positivism VS interpretivism. *Global Academic Journal of Humanities and Social Sciences*, *2*(3), 39-43.

Ali, S., Santomauro, D., Ferrari, A. J., & Charlson, F. (2022). Excess mortality in severe mental disorders: a systematic review and meta-regression. *Journal of psychiatric research*, *149*, 97-105.

AllahBakhshian, M., Alimohammadi, N., Taleghani, F., Nik, A. Y., Abbasi, S., & Gholizadeh, L. (2017). Barriers to intensive care unit nurses' autonomy in Iran: A qualitative study. *Nursing Outlook*, *65*(4), 392-399.

Ankers, M. D., Barton, C. A., & Parry, Y. K. (2018). A phenomenological exploration of graduate nurse transition to professional practice within a transition to practice program. *Collegian*, *25*(3), 319-325.

Anney, V. N. (2014). Ensuring the quality of the findings of qualitative research: Looking at trustworthiness criteria.

Arias, D., Saxena, S., & Verguet, S. (2022). Quantifying the global burden of mental disorders and their economic value. *EClinicalMedicine*, *54*.

Ataro, G. (2020). Methods, methodological challenges and lesson learned from phenomenological study about OSCE experience: Overview of paradigm-driven qualitative approach in medical education. *Annals of Medicine and Surgery*, *49*, 19-23.

Bahari, S. F. (2010). Qualitative versus quantitative research strategies: contrasting epistemological and ontological assumptions. *Sains Humanika*, *52*(1).

Baker, C., & Kirk-Wade, E. (2024). *Mental Health Statistics: Prevalence, Services and Funding in England*. House of Commons Library. Retrieved 01 September 2024 from file:///C:/Users/HP/Documents/Mental%20health%20statistics.pdf

Baker, W., Harris, M., & Battersby, M. (2014). Health workers' views of a program to facilitate physical health care in mental health settings: implications for implementation and training. *Australasian Psychiatry*, *22*(6), 560-563. https://doi.org/10.1177/1039856214546675

Balasi, L. R., Elahi, N., Ebadi, A., Hazrati, M., & Jahani, S. (2022). Barriers and facilitators of professional autonomy of clinical nurses in Iran: A qualitative study. *Indian Journal of Medical Ethics*, 1-8.

Barnes, C. (2021). *Education and Training - What's the difference?* eLearning Industry. Retrieved 05 September 2025 from https://elearningindustry.com/education-and-training-what-is-the-difference

Bebbington, P. E., & McManus, S. (2020). Revisiting the one in four: the prevalence of psychiatric disorder in the population of England 2000–2014. *The British Journal of Psychiatry*, *216*(1), 55-57.

Beech, B., & Leather, P. (2006). Workplace violence in the health care sector: A review of staff training and integration of training evaluation models. *Aggression and violent behavior*, *11*(1), 27-43.

Binder, P.-E., Moltu, C., Hummelsund, D., Sagen, S. H., & Holgersen, H. (2011). Meeting an adult ally on the way out into the world: Adolescent patients' experiences of useful psychotherapeutic ways of working at an age when independence really matters. *Psychotherapy Research*, *21*(5), 554-566.

Blanchard, N. P., Thacker, J. W., & Cosby, D. M. (2023). *Effective Training: Systems, Strategies and Practices* (7th Edition ed.). Sage.

Blythe, J., & White, J. (2012). Role of the mental health nurse towards physical health care in serious mental illness: An integrative review of 10 years of UK literature. *International Journal of Mental Health Nursing*, *21*(3), 193-201.

Boland, A., Cherry, G., & Dickson, R. (2017). *Doing a systematic review: A student's guide*. Sage.

Booth, A., Sutton, A., & Papaioannou, D. (2016). *Systematic approaches to a successful literature review* (2nd ed.). Sage.

Bowers, L., Jones, J., & Simpson, A. (2009). The demography of nurses and patients on acute psychiatric wards in England. *Journal of Clinical Nursing*, *18*(6), 884-892.

Bradshaw, C., Atkinson, S., & Doody, O. (2017). Employing a Qualitative Description Approach in Health Care Research. *Global qualitative nursing research*, *4*, 2333393617742282.

Braun, V., & Clarke, V. (2019a). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 1-9.

Braun, V., & Clarke, V. (2019b). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, *11*(4), 589-597.

Braun, V., & Clarke, V. (2021a). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative research in psychology*, *18*(3), 328-352.

Braun, V., & Clarke, V. (2021b). To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qualitative Research in Sport, Exercise and Health*, *13*(2), 201-216.

Braun, V., & Clarke, V. (2022a). Conceptual and design thinking for thematic analysis. Qualitative Psychology, 9 (1), 3–26. In.

Braun, V., & Clarke, V. (2022b). *Thematic Analysis: A Practical Guide*. SAGE Publications Ltd.

Braun, V., & Clarke, V. (2024). Supporting best practice in reflexive thematic analysis reporting in Palliative Medicine: A review of published research and introduction to the Reflexive Thematic Analysis Reporting Guidelines (RTARG). *Palliative Medicine*, *38*(6), 608-616.

Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2019). Thematic Analysis. In P. Liamputtong (Ed.), *Handbook of Research Methods in Health and Social Sciences* (pp. 843-860). Springer.

Bressington, D., Badnapurkar, A., Inoue, S., Ma, H., Chien, W., Nelson, D., & Gray, R. (2018). Physical health care for people with severe mental illness: The attitudes, practices, and training needs of nurses in three Asian countries. *International Journal of Environmental Research and Public Health*, *15*(2), 343.

Bryman, A. (2008). *Social Research Methods*. Oxford University Press.

Bryman, A. (2016). *Social Research methods* (5th ed.). Oxford University Press.

Byrne, D. (2022). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality & Quantity*, *56*(3), 1391-1412.

Byrne, D., & Carthy, D. A. (2021). A qualitative exploration of post-primary educators' attitudes regarding the promotion of student wellbeing. *International journal of qualitative studies on health and well-being*, *16*(1), 1946928.

Campbell, K. A., Orr, E., Durepos, P., Nguyen, L., Li, L., Whitmore, C., Gehrke, P., Graham, L., & Jack, S. M. (2021). Reflexive thematic analysis for applied qualitative health research. *The qualitative report*, *26*(6), 2011-2028.

Care Quality Commission. (2020). *Brief guide: Physical healthcare in mental health settings*. Care Quality Commission. Retrieved 29 October 2025 from https://www.cqc.org.uk/sites/default/files/20191125_900852_briefguide-physical_healthcare_mental_health_settings_v4.pdf#:~:text=secondary%20care%20team%20should%20maintain%20responsibility%20for,primary%20care%20under%20shared%20care%20arrangements.%20'

CASP. (2018). *CASP Qualitative Studies Checklist*. CASP UK. Retrieved 20 May 2019 from https://casp-uk.net/casp-checklists/CASP-checklist-qualitative-2024.pdf

Çelik Ince, S., Partlak Günüşen, N., & Serçe, Ö. (2018). The opinions of Turkish mental health nurses on physical health care for individuals with mental illness: a qualitative study. *Journal of Psychiatric and Mental Health Nursing*, *25*(4), 245-257.

Chammas, G. (2020). The insider-researcher status: A challenge for social work practice research. *The qualitative report*, *25*(2), 537-552.

Chen, H.-K., & Hsieh, C.-J. (2018). Risk of gastrointestinal Hypomotility in schizophrenia and schizoaffective disorder treated with antipsychotics: a retrospective cohort study. *Schizophrenia Research*, *195*, 237-244.

Chester, P., Ehrlich, C., Warburton, L., Baker, D., Kendall, E., & Crompton, D. (2016). What is the work of recovery oriented practice? A systematic literature review. *International Journal of Mental Health Nursing*, *25*(4), 270-285.

Chou, H.-J., & Tseng, K.-Y. (2020). The experience of emergency nurses caring for patients with mental illness: A qualitative study. *International Journal of Environmental Research and Public Health*, *17*(22), 8540.

Clarke, D. E., Boyce-Gaudreau, K., Sanderson, A., & Baker, J. A. (2015). ED triage decision-making with mental health presentations: A "think aloud" study. *Journal of Emergency Nursing*, *41*(6), 496-502.

Connell, C., Jones, E., Haslam, M., Firestone, J., Pope, G., & Thompson, C. (2022). Mental health nursing identity: a critical analysis of the UK's Nursing and Midwifery Council's pre-registration syllabus change and subsequent move towards genericism. *Mental Health Review Journal*, *27*(4), 472-483.

Cooke, A., Smith, D., & Booth, A. (2012). Beyond PICO: the SPIDER tool for qualitative evidence synthesis. *Qualitative health research*, *22*(10), 1435-1443.

Cope, S., & Alberti, H. (2020). Exploring educational integrated training posts in general practice: a phenomenological study of trainees' perspectives. *Education for Primary Care*, *31*(5), 297-304.

Correll, C. U., Detraux, J., De Lepeleire, J., & De Hert, M. (2015). Effects of antipsychotics, antidepressants and mood stabilizers on risk for physical diseases in people with schizophrenia, depression and bipolar disorder. *World Psychiatry*, *14*(2), 119-136.

Correll, C. U., Højlund, M., Graham, C., Todtenkopf, M. S., McDonnell, D., & Simmons, A. (2023). Weight gain and metabolic changes in patients with first-episode psychosis or early-phase schizophrenia treated with olanzapine: a meta-analysis. *International Journal of Neuropsychopharmacology*, *26*(7), 451-464.

Correll, C. U., Solmi, M., Veronese, N., Bortolato, B., Rosson, S., Santonastaso, P., Thapa-Chhetri, N., Fornaro, M., Gallicchio, D., & Collantoni, E. (2017). Prevalence, incidence and mortality from cardiovascular disease in patients with pooled and specific severe mental illness: a large-scale meta-analysis of 3,211,768 patients and 113,383,368 controls. *World Psychiatry*, *16*(2), 163-180.

Cragg, L., Davies, M., & Macdowall, W. (2013). *Understanding Public Health: Health Promotion Theory* (2nd ed.).

Creswell, J., & Plano Clark, V. (2017). Core mixed methods designs. In J. Creswell, V. Plano Clark, & L. Vicki (Eds.), *Designing and conducting mixed methods* (3rd ed., pp. 51-99). Sage.

Crotty, M. J. (1998). The foundations of social research: Meaning and perspective in the research process. *The foundations of social research*, 1-256.
D'Souza, S. (2019). Hermeneutics: A boon for cross-disciplinary research. In P. Liamputtong (Ed.), *Handbook of Research Methods in Health and Social Sciences* (pp. 189-204). Springer.
Darlaston-Jones, D. (2007). Making connections: The relationship between epistemology and research methods. *Australian Community Psychologist*, *19*(1), 19-27.
De Berardis, D., Rapini, G., Olivieri, L., Di Nicola, D., Tomasetti, C., Valchera, A., Fornaro, M., Di Fabio, F., Perna, G., & Di Nicola, M. (2018). Safety of antipsychotics for the treatment of schizophrenia: a focus on the adverse effects of clozapine. *Therapeutic advances in drug safety*, *9*(5), 237-256.
De Gagne, J. C., & Walters, K. J. (2010). The lived experience of online educators: Hermeneutic phenomenology. *Journal of Online Learning and Teaching*, *6*(2), 357-366.
De Hert, M., Correll, C. U., Bobes, J., Cetkovich-Bakmas, M., Cohen, D., Asai, I., Detraux, J., Gautam, S., Möller, H.-J., & Ndetei, D. M. (2011). Physical illness in patients with severe mental disorders. I. Prevalence, impact of medications and disparities in health care. *World Psychiatry*, *10*(1), 52.
De Mooij, L. D., Kikkert, M., Theunissen, J., Beekman, A. T., De Haan, L., Duurkoop, P. W., Van, H. L., & Dekker, J. J. (2019). Dying too soon: excess mortality in severe mental illness. *Frontiers in Psychiatry*, *10*, 855.
Delaney, L. J. (2018). Patient-centred care as an approach to improving health care in Australia. *Collegian*, *25*(1), 119-123.
Derblom, K., Molin, J., Gabrielsson, S., & Lindgren, B.-M. (2022). Nursing Staff's Experiences of Caring for People with Mental Ill-Health in General Emergency Departments: A Qualitative Descriptive Study. *Issues in mental health nursing*, *43*(12), 1145-1154.
Dickens, G. L., Ion, R., Waters, C., Atlantis, E., & Everett, B. (2019). Mental health nurses' attitudes, experience, and knowledge regarding routine physical healthcare: systematic, integrative review of studies involving 7,549 nurses working in mental health settings. *BMC nursing*, *18*(1), 16.
Dickens, G. L., Ramjan, L., Endrawes, G., Barlow, E. M., & Everett, B. (2019). Effectiveness and experiences of mental health nurses in cases of medical emergency and severe physiological deterioration: A systematic review. *International journal of nursing studies*, *95*, 73-86. https://doi.org/10.1016/j.ijnurstu.2019.04.014
Dixon-Woods, M., Agarwal, S., Jones, D., Young, B., & Sutton, A. (2005). Synthesising qualitative and quantitative evidence: a review of possible methods. *Journal of health services research & policy*, *10*(1), 45-53.
Doran, C. M., & Kinchin, I. (2017). A review of the economic impact of mental illness. *Australian Health Review*, *43*(1), 43-48.
Dorey, T., Haddad, M., McBain, H., Mulligan, K., & Zarska, A. (2023). A systematic review of barriers and enablers that health professionals experience to the delivery of type 2 diabetes care for adults with severe mental illness. *Diabetic Medicine*, e15098.
Dunleavy, L., Walshe, C., Oriani, A., & Preston, N. (2018). Using the 'Social Marketing Mix Framework'to explore recruitment barriers and facilitators in palliative care randomised controlled trials? A narrative synthesis review. *Palliative Medicine*, *32*(5), 990-1009.
Dwyer, S. C., & Buckle, J. L. (2009). The space between: On being an insider-outsider in qualitative research. *International Journal of Qualitative Methods*, *8*(1), 54-63.
ESRC. (2015). *ESRC Framework for research ethics*. Economic and Social Research Council. Retrieved 08 August 2021 from https://esrc.ukri.org/files/funding/guidance-for-applicants/esrc-framework-for-research-ethics-2015/
Evans, N. (2023). Do NMC proficiency standards undermine mental health nursing?: When the regulator updated its proficiency standards for nurse education it was seen as a step

forward, but now there are fears training has become too generic. *Mental Health Practice*, *26*(3).
Fealy, G. M., Carney, M., Drennan, J., Treacy, M., Burke, J., O'CONNELL, D., Howley, B., Clancy, A., McHugh, A., & Patton, D. (2009). Models of initial training and pathways to registration: a selective review of policy in professional regulation. *Journal of nursing management*, *17*(6), 730-738.
Fiorillo, A., de Girolamo, G., Simunovic, I. F., Gureje, O., Isaac, M., Lloyd, C., Mari, J., Patel, V., Reif, A., & Starostina, E. (2023). The relationship between physical and mental health: an update from the WPA Working Group on Managing Comorbidity of Mental and Physical Health. *World Psychiatry*, *22*(1), 169.
Fiorillo, A., & Sartorius, N. (2021). Mortality gap and physical comorbidity of people with severe mental disorders: the public health scandal. *Annals of General Psychiatry*, *20*(1), 1-5.
Fitzgerald, I., O'Dwyer, S., Brooks, M., Sahm, L., Crowley, E., & Ní Dhubhlaing, C. (2021). Worth the weight? olanzapine prescribing in schizophrenia. A review of weight gain and other cardiometabolic side effects of olanzapine. *Frontiers in Psychiatry*, *12*, 730769.
Foster, K. N., Lewis, M., Marshall, A., & Lewis, P. (2013). Educating Australian registered nurses in comprehensive health assessment: A pilot study. *The Journal of Continuing Education in Nursing*, *44*(4), 155-162.
Garavan, T. N. (1997). Training, development, education and learning: different or the same? *Journal of European industrial training*, *21*(2), 39-50.
Gatov, E., Rosella, L., Chiu, M., & Kurdyak, P. A. (2017). Trends in standardized mortality among individuals with schizophrenia, 1993–2012: a population-based, repeated cross-sectional study. *Cmaj*, *189*(37), E1177-E1187.
Gerdtz, M. F., Weiland, T. J., Jelinek, G. A., Mackinlay, C., & Hill, N. (2012). Perspectives of emergency department staff on the triage of mental health-related presentations: Implications for education, policy and practice. *Emergency Medicine Australasia*, *24*(5), 492-500.
Goldman, J. S., & Trommer, A. E. (2019). A qualitative study of the impact of a dementia experiential learning project on pre-medical students: a friend for Rachel. *BMC Medical Education*, *19*(1), 1-8.
Gomez, K. U., McBride, O., Roberts, E., Angus, C., Keyes, K., Drummond, C., Buchan, I., Fleming, K., Gilmore, I., & Donoghue, K. (2023). The clustering of physical health conditions and associations with co-occurring mental health problems and problematic alcohol use: a cross-sectional study. *Bmc Psychiatry*, *23*(1), 89.
Gong, R., Wang, P., & Dworkin, L. (2016). What we need to know about the effect of lithium on the kidney. *American Journal of Physiology-Renal Physiology*, *311*(6), F1168-F1171.
Grant, A. (2006). Undergraduate psychiatric nursing education at the crossroads in Ireland. The generalist vs. specialist approach: towards a common foundation. *Journal of Psychiatric and Mental Health Nursing*, *13*(6), 722-729.
Grassi, L., & Riba, M. B. (2021). Disparities and inequalities in cancer care and outcomes in patients with severe mental illness: call to action. In (Vol. 30, pp. 1997-2001): Wiley Online Library.
Grix, J. (2010). *The Foundations of Research*. Palgrave Macmillan.
Gronholm, P. C., Chowdhary, N., Barbui, C., Das-Munshi, J., Kolappa, K., Thornicroft, G., Semrau, M., & Dua, T. (2021). Prevention and management of physical health conditions in adults with severe mental disorders: WHO recommendations. *International Journal of Mental Health Systems*, *15*, 1-10.
Gurusamy, J., Amudhan, S., Menen, M., Veerabhadraiah, K. B., & Damodharan, D. (2023). Barriers and Needs of Mental Health Nursing Practitioners toward the Provision of Physical Health Care for Individuals with Severe Mental Illness: Findings from a Cross-Sectional Survey in India. *Issues in mental health nursing*, *44*(10), 1009-1019.
Haddad, M., Llewellyn-Jones, S., Yarnold, S., & Simpson, A. (2016). Improving the physical health of people with severe mental illness in a low secure forensic unit: An uncontrolled evaluation

study of staff training and physical health care plans. *International Journal of Mental Health Nursing*, *25*(6), 554-565. https://doi.org/10.1111/inm.12246

Halliday, E., Brennan, L., Bambra, C., & Popay, J. (2021). 'It is surprising how much nonsense you hear': How residents experience and react to living in a stigmatised place. A narrative synthesis of the qualitative evidence. *Health & place*, *68*, 102525.

Halstead, S., Cao, C., Mohr, G. H., Ebdrup, B. H., Pillinger, T., McCutcheon, R. A., Firth, J., Siskind, D., & Warren, N. (2024). Prevalence of multimorbidity in people with and without severe mental illness: a systematic review and meta-analysis. *The Lancet Psychiatry*, *11*(6), 431-442.

Happell, B., Platania-Phung, C., & Scott, D. (2014). A systematic review of nurse physical healthcare for consumers utilizing mental health services. *Journal of Psychiatric and Mental Health Nursing*, *21*(1), 11-22.

Happell, B., Platania-Phung, C., Stanton, R., & Millar, F. (2015). Exploring the Views of Nurses on the Cardiometabolic Health Nurse in Mental Health Services in Australia. *Issues in mental health nursing*, *36*(2), 135-144. https://doi.org/10.3109/01612840.2014.901449

Happell, B., Platania-Phung, C., Watkins, A., Scholz, B., Curtis, J., Goss, J., Niyonsenga, T., & Stanton, R. (2019). Developing an evidence-based specialist nursing role to improve the physical health care of people with mental illness. *Issues in mental health nursing*, *40*(10), 832-838.

Happell, B., Scott, D., Nankivell, J., & Platania-Phung, C. (2013a). Nurses' Views on Training Needs to Increase Provision of Primary Care for Consumers With Serious Mental Illness. *Perspectives in psychiatric care*, *49*(3), 210-217. https://doi.org/10.1111/j.1744-6163.2012.00351.x

Happell, B., Scott, D., Nankivell, J., & Platania-Phung, C. (2013b). Screening physical health? Yes! But...: Nurses' views on physical health screening in mental health care. *Journal of Clinical Nursing*, *22*(15-16), 2286-2297. https://doi.org/http://dx.doi.org/10.1111/j.1365-2702.2012.04325.x

Happell, B., Scott, D., Nankivell, J., & Platania-Phung, C. (2013a). Nurses' views on training needs to increase provision of primary care for consumers with serious mental illness. *Perspectives in psychiatric care*, *49*(3), 210-217. https://doi.org/10.1111/j.1744-6163.2012.00351.x

Happell, B., Scott, D., Nankivell, J., & Platania-Phung, C. (2013b). Screening physical health? Yes! But...: nurses' views on physical health screening in mental health care. *Journal of Clinical Nursing (John Wiley & Sons, Inc.)*, *22*(15-16), 2286-2297. https://doi.org/10.1111/j.1365-2702.2012.04325.x

Happell, B., Scott, D., Nankivell, J., & Platania-Phung, C. (2013c). Screening physical health? Yes! But…: Nurses' views on physical health screening in mental health care. *Journal of Clinical Nursing*, *22*(15-16), 2286-2297. https://doi.org/10.1111/j.1365-2702.2012.04325.x

Happell, B., Scott, D., & Platania-Phung, C. (2013). Nurse views on the cardiometabolic health nurse as an approach to improving the physical health of people with serious mental illness in A ustralia. *International Journal of Mental Health Nursing*, *22*(5), 418-429.

Hardy, S., White, J., Deane, K., & Gray, R. (2011). Educating healthcare professionals to act on the physical health needs of people with serious mental illness: a systematic search for evidence. *Journal of Psychiatric and Mental Health Nursing*, *18*(8), 721-727. https://doi.org/10.1111/j.1365-2850.2011.01722.x

Haslam, M. B. (2023). The erosion of mental health nursing: the implications of the move towards genericism. *British Journal of Mental Health Nursing*, *12*(1), 1-6.

Hawker, S., Payne, S., Kerr, C., Hardey, M., & Powell, J. (2002). Appraising the evidence: reviewing disparate data systematically. *Qualitative health research*, *12*(9), 1284-1299.

Health Education England. (2022). *Major HEE review recommends ways to develop the mental health nursing workforce*. Health Education England. Retrieved 20 July 2022 from https://www.hee.nhs.uk/news-blogs-events/news/major-hee-review-recommends-ways-develop-mental-health-nursing-workforce

Hemingway, S. (2016). The future of mental health nursing education in the United Kingdom: reflections on the Australian and New Zealand experience. *Journal of Psychiatric and Mental Health Nursing*, *23*(5), 331-337.

Hennessy, S., & Cocoman, A. M. (2018). What is the impact of targeted health education for mental health nurses in the provision of physical health care? An integrated literature review. *Issues in mental health nursing*, *39*(8), 700-706.

Hill, J., & Hill, E. (2024). Multimorbidity is highly prevalent in adults with severe mental illness. *Evidence-Based Nursing*.

Ho, L. L., Li, Y., Gray, R., Ho, G. W., & Bressington, D. (2022). Experiences and views of carers regarding the physical health care of people with severe mental illness: An integrative thematic review of qualitative research. *Journal of Psychiatric and Mental Health Nursing*, *29*(6), 774-787.

Hogan, B. K., & Shattell, M. M. (2007). PSYCHIATRIC CLINICAL NURSE SPECIALISTS, NURSE PRACTITIONERS, OR THE NEW PRACTICE DOCTORATE: MEETING PATIENTS'NEEDS? *Issues in mental health nursing*, *28*(8), 927-930.

Howard, L., & Gamble, C. (2011). Supporting mental health nurses to address the physical health needs of people with serious mental illness in acute inpatient care settings. *Journal of Psychiatric and Mental Health Nursing*, *18*(2), 105-112. https://doi.org/10.1111/j.1365-2850.2010.01642.x

Howell, S., Yarovova, E., Khwanda, A., & Rosen, S. D. (2019). Cardiovascular effects of psychotic illnesses and antipsychotic therapy. *Heart*, *105*(24), 1852-1859.

Hu, F.-H., Zhao, D.-Y., Fu, X.-L., Zhang, W.-Q., Tang, W., Hu, S.-Q., Shen, W.-Q., & Chen, H.-L. (2023). Effects of social support on suicide-related behaviors in patients with severe mental illness: A systematic review and meta-analysis. *Journal of Affective Disorders*, *328*, 324-333.

Hummelvoll, J. K., Karlsson, B., & Borg, M. (2015). Recovery and person-centredness in mental health services: roots of the concepts and implications for practice. *International Practice Development Journal*, *5*.

Hurley, J., & Lakeman, R. (2021). Making the case for clinical mental health nurses to break their silence on the healing they create: A critical discussion. *International Journal of Mental Health Nursing*, *30*(2), 574-582.

Hurley, J., Lakeman, R., Linsley, P., Ramsay, M., & Mckenna-Lawson, S. (2022). Utilizing the mental health nursing workforce: A scoping review of mental health nursing clinical roles and identities. *International Journal of Mental Health Nursing*, *31*(4), 796-822.

Huxley, P., & Thornicroft, G. (2003). Social inclusion, social quality and mental illness. *The British journal of psychiatry: the journal of mental science*, *182*, 289.

International Council of Nurses. (2022). International Council of Nurses. Retrieved 23 September 2024 from https://www.icn.ch/sites/default/files/2023-04/ICN_Mental_Health_Workforce_report_EN_web.pdf

Jabbie, L., Walshe, C., & Ahmed, F. (2024). The views and perceptions of training in physical health care amongst mental health nurses, managers of mental health nurses and trainers: A systematically constructed narrative synthesis. *International Journal of Mental Health Nursing*, *33*(2), 309-323.

Jacobson, N., & Greenley, D. (2001). What is recovery? A conceptual model and explication. *Psychiatric Services*, *52*(4), 482-485.

Jameel, L., Valmaggia, L., Barnes, G., & Cella, M. (2022). mHealth technology to assess, monitor and treat daily functioning difficulties in people with severe mental illness: a systematic review. *Journal of psychiatric research*, *145*, 35-49.

Jeste, D. V., & Pender, V. B. (2022). Social determinants of mental health: recommendations for research, training, practice, and policy. *JAMA psychiatry*, *79*(4), 283-284.

John, A., McGregor, J., Jones, I., Lee, S. C., Walters, J. T., Owen, M. J., O'Donovan, M., DelPozo-Banos, M., Berridge, D., & Lloyd, K. (2018). Premature mortality among people with severe mental illness—New evidence from linked primary care data. *Schizophrenia Research*, *199*, 154-162.

Jones, M. E., Campbell, G., Patel, D., Brunner, E., Shatapathy, C. C., Murray-Thomas, T., van Staa, T. P., & Motsko, S. (2013). Risk of mortality (including sudden cardiac death) and major cardiovascular events in users of olanzapine and other antipsychotics: a study with the general practice research database. *Cardiovascular psychiatry and neurology*, *2013*(1), 647476.

Kamal, S. (2019). Research paradigm and the philosophical foundations of a qualitative study. *PEOPLE: International Journal of Social Sciences*, *4*(3), 1386-1394.

Kameg, B., & Champion, C. (2022). Atypical antipsychotics: Managing adverse effects. *Perspectives in psychiatric care*, *58*(2), 691-695.

Karan, R. (2025). *Difference between education and training*. Shiksha Online. Retrieved 05 September 2025 from https://www.shiksha.com/online-courses/articles/difference-between-education-and-training-blogId-144877

Kirkbride, J. B., Anglin, D. M., Colman, I., Dykxhoorn, J., Jones, P. B., Patalay, P., Pitman, A., Soneson, E., Steare, T., & Wright, T. (2024). The social determinants of mental health and disorder: evidence, prevention and recommendations. *World Psychiatry*, *23*(1), 58.

Kirkpatrick, D. L. (1979). Techniques for evaluating training programs. *Training and development journal*, 178-192.

Kraiger, K., Ford, J. K., & Salas, E. (1993). Application of cognitive, skill-based, and affective theories of learning outcomes to new methods of training evaluation. *Journal of applied psychology*, *78*(2), 311.

Kraiger, K., McLinden, D., & Casper, W. J. (2004). Collaborative planning for training impact. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in Alliance with the Society of Human Resources Management*, *43*(4), 337-351.

Lakeman, R., Foster, K., Happell, B., Hazelton, M., Moxham, L., & Hurley, J. (2024). Informing the development of a fit-for-purpose mental health nursing curriculum: A survey of mental health nurse academics in Australia. *International Journal of Mental Health Nursing*, *33*(1), 93-103.

Långstedt, C., Bressington, D., & Välimäki, M. (2024). Nurses' and patients' perceptions of physical health screening for patients with schizophrenia spectrum disorders: a qualitative study. *BMC nursing*, *23*(1), 321.

Lappin, J. M., Thomas, D., Curtis, J., Blowfield, S., Gatsi, M., Marr, G., & Courtney, R. (2020). Targeted intervention to reduce smoking among people with severe mental illness: Implementation of a smoking cessation intervention in an inpatient mental health setting. *Medicina*, *56*(4), 204.

Launders, N., Hayes, J. F., Price, G., & Osborn, D. P. (2022). Clustering of physical health multimorbidity in people with severe mental illness: An accumulated prevalence analysis of United Kingdom primary care data. *PLoS medicine*, *19*(4), e1003976.

Lavelle, M., Attoe, C., Tritschler, C., & Cross, S. (2017). Managing medical emergencies in mental health settings using an interprofessional in-situ simulation training programme: A mixed methods evaluation study. *Nurse Education Today*, *59*, 103-109. https://doi.org/10.1016/j.nedt.2017.09.009

Le Boutillier, C., Leamy, M., Bird, V. J., Davidson, L., Williams, J., & Slade, M. (2011). What does recovery mean in practice? A qualitative analysis of international recovery-oriented practice guidance. *Psychiatric Services*, *62*(12), 1470-1476.

Le Boutillier, C., Slade, M., Lawrence, V., Bird, V. J., Chandler, R., Farkas, M., Harding, C., Larsen, J., Oades, L. G., & Roberts, G. (2015). Competing priorities: staff perspectives on supporting recovery. *Administration and Policy in Mental Health and Mental Health Services Research*, *42*, 429-438.

Leichsenring, F., Steinert, C., Rabung, S., & Ioannidis, J. P. (2022). The efficacy of psychotherapies and pharmacotherapies for mental disorders in adults: an umbrella review and meta-analytic evaluation of recent meta-analyses. *World Psychiatry*, *21*(1), 133-145.

Lopez, K. A., & Willis, D. G. (2004). Descriptive versus interpretive phenomenology: Their contributions to nursing knowledge. *Qualitative health research*, *14*(5), 726-735.

MacDonald, C. (2002). Nurse autonomy as relational. *Nursing ethics*, *9*(2), 194-201.

Mansour, H., Mueller, C., Davis, K. A., Burton, A., Shetty, H., Hotopf, M., Osborn, D., Stewart, R., & Sommerlad, A. (2020). Severe mental illness diagnosis in English general hospitals 2006-2017: a registry linkage study. *PLoS medicine*, *17*(9), e1003306.

Masadeh, M. (2012). Training, education, development and learning: what is the difference? *European scientific journal*, *8*(10).

Mazereel, V., Detraux, J., Vancampfort, D., Van Winkel, R., & De Hert, M. (2020). Impact of psychotropic medication effects on obesity and the metabolic syndrome in people with serious mental illness. *Frontiers in Endocrinology*, *11*, 573479.

McDaid, D., Park, A.-L., Davidson, G., John, A., Knifton, L., McDaid, S., Morton, A., Thorpe, L., & Wilson, N. (2022). *The economic case for investing in the prevention of mental health conditions in the UK*. Queen's University Belfast. Retrieved 02 September 2024 from https://pureadmin.qub.ac.uk/ws/portalfiles/portal/293822086/Mental_Health_Foundation_2022_Investing_in_Prevention_Report.pdf

McDermid, F., Peters, K., Jackson, D., & Daly, J. (2014). Conducting qualitative research in the context of pre-existing peer and collegial relationships. *Nurse researcher*, *21*(5).

McIntosh, J. T. P. (2021). Emergency department nurses' care of psychiatric patients: A scoping review. *International emergency nursing*, *54*, 100929.

McIntyre, R. S., Kwan, A. T., Rosenblat, J. D., Teopiz, K. M., & Mansur, R. B. (2024). Psychotropic drug–related weight gain and its treatment. *American Journal of Psychiatry*, *181*(1), 26-38.

McKeown, M. (2023). Resisting genericization: towards the renewal of mental health nursing. In (Vol. 79, pp. 3189-3191): Wiley Online Library.

Melamed, O. C., Fernando, I., Soklaridis, S., Hahn, M. K., LeMessurier, K. W., & Taylor, V. H. (2019). Understanding engagement with a physical health service: a qualitative study of patients with severe mental illness. *The Canadian Journal of Psychiatry*, *64*(12), 872-880.

Meyer, T. D., Casarez, R., Mohite, S. S., La Rosa, N., & Iyengar, M. S. (2018). Novel technology as platform for interventions for caregivers and individuals with severe mental health illnesses: A systematic review. *Journal of Affective Disorders*, *226*, 169-177.

Miorelli, A. (2020). Psychiatric aspects of chronic physical disease. *Medicine*, *48*(12), 784-787.

Mitchell, A. J., Hardy, S., & Shiers, D. (2017). Parity of esteem: Addressing the inequalities between mental and physical healthcare. *BJ Psych Advances*, *23*(3), 196-205. https://doi.org/http://dx.doi.org/10.1192/apt.bp.114.014266

Montejo, A. L., Montejo, L., & Baldwin, D. S. (2018). The impact of severe mental disorders and psychotropic medications on sexual health and its implications for clinical management. *World Psychiatry*, *17*(1), 3-11.

Mulhearne, P., Cotter, P., O'Shea, M., & Leahy-Warren, P. (2021). Experiences of registered general nurses who care for patients presenting with self-harm to the emergency department in Ireland. *International emergency nursing*, *58*, 101047.

Murray-Thomas, T., Jones, M. E., Patel, D., Brunner, E., Shatapathy, C. C., Motsko, S., & Van Staa, T. P. (2013). Risk of mortality (including sudden cardiac death) and major cardiovascular events in atypical and typical antipsychotic users: a study with the general practice research database. *Cardiovascular psychiatry and neurology*, *2013*(1), 247486.

Mwebe, H. (2017). Physical health monitoring in mental health settings: a study exploring mental health nurses' views of their role. *Journal of Clinical Nursing*, *26*(19-20), 3067-3078. https://doi.org/10.1111/jocn.13653

Nakayama, Y. (1994). Phenomenology and qualitative research methods. *聖路加看護大学紀要*(20), 22-34.

Nash, M. (2009). Mental health nurses' diabetes care skills-a training needs analysis. *British Journal Of Nursing (Mark Allen Publishing)*, *18*(10), 626-630.

National Institue for Health Research. (2018). *Forward Thinking: NIHR research on support for people with severe mental illness*. National Institute for Health Research. Retrieved 10 March 2019 from https://www.dc.nihr.ac.uk/themed-reviews/Forward%20Thinking%20final.pdf

NCEPOD. (2022). *Physical Healthcare in Mental Health Inpatient Settings*. Retrieved 02/08/2025 from https://www.ncepod.org.uk/2022phmh.html

NHS England. (2016). *The five year forward view for mental health*. NHS England. Retrieved 20 September 2019 from https://www.england.nhs.uk/wp-content/uploads/2016/02/Mental-Health-Taskforce-FYFV-final.pdf

NHS England. (2018). *Improving physical healthcare for people living with serious mental illness in primary care. Guidance for clinical commissioning groups.* NHS England. Retrieved 18 July 2019 from https://www.england.nhs.uk/wp-content/uploads/2018/02/improving-physical-health-care-for-smi-in-primary-care.pdf

NHS England. (2023). *NHS Longterm Workforce Plan*. Retrieved 25 April 2024 from https://www.england.nhs.uk/wp-content/uploads/2023/06/nhs-long-term-workforce-plan-v1.2.pdf

NHS England. (2024a). *10 key actions: Improving the physical health of people living with severe mental illness*. Retrieved 02/08/2025 from https://www.england.nhs.uk/long-read/10-key-actions-improving-the-physical-health-of-people-living-with-severe-mental-illness/

NHS England. (2024b). *Improving the physical health of people living with severe mental illness: Guidance for integrated care systems*. NHS England. Retrieved 05 September 2024 from https://www.england.nhs.uk/long-read/improving-the-physical-health-of-people-living-with-severe-mental-illness/

NIHR. (2023). *Supporting the physical health of people with severe mental illness*. Retrieved 02/08/2025 from https://evidence.nihr.ac.uk/collection/supporting-the-physical-health-of-people-with-severe-mental-illness/

Noe, R. A., & Colquitt, J. A. (2002). Planning for training impact: Principals of training effectiveness. In K. Kraiger (Ed.), *Creating, implementing, and maintaining effective training and development: State-of-the-art lessons for practice* (pp. 53-79). Jossey-Bass.

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, *16*(1), 1609406917733847.

Nursing and Midwifery Council. (2018). *Standards of proficiency for registered nurses*. NMC. Retrieved 21 September 2023 from https://www.nmc.org.uk/standards/standards-for-nurses/standards-of-proficiency-for-registered-nurses/

Oakley, P., Kisely, S., Baxter, A., Harris, M., Desoe, J., Dziouba, A., & Siskind, D. (2018). Increased mortality among people with schizophrenia and other non-affective psychotic disorders in the community: a systematic review and meta-analysis. *Journal of psychiatric research*, *102*, 245-253.

Opusunju, E. E., Palmieri, P. A., Dominguez-Cancino, K. A., Jaque-Ortiz, S., & Whitehead, D. K. (2022). Improving the Physical Health of Psychiatric Hospital Residents: An Evaluation of an Obesity Education Program for Mental Health Professionals. Healthcare,

Ormston, R., Spencer, L., Barnard, M., & Snape, D. (2013). The foundations of qualitative research. In J. Ritchie, J. Lewis, C. M. Nicholls, & R. Ormston (Eds.), *Qualitative research practice: a guide for social science students and researchers*. Sage.

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., & Brennan, S. E. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *International Journal of Surgery*, *88*, 105906.

Parks, J., Svendsen, D., Singer, P., Foti, M. E., & Mauer, B. (2006). Morbidity and mortality in people with serious mental illness. *Alexandria, VA: national association of state mental health program directors (NASMHPD) Medical Directors Council*, *25*(4), 1-87.

Patton, C. M. (2020). Phenomenology for the holistic nurse researcher: Underpinnings of descriptive and interpretive traditions. *Journal of Holistic Nursing*, *38*(3), 278-286.

Pavedahl, V., Muntlin, Å., Summer Meranius, M., von Thiele Schwarz, U., & Holmström, I. K. (2022). Prioritizing and meeting life-threateningly ill patients' fundamental care needs in the emergency room—An interview study with registered nurses. *Journal of Advanced Nursing*, *78*(7), 2165-2174.

Pazargadi, M., Fereidooni Moghadam, M., Fallahi Khoshknab, M., Alijani Renani, H., & Molazem, Z. (2015). The therapeutic relationship in the shadow: Nurses' experiences of barriers to the nurse–patient relationship in the psychiatric ward. *Issues in mental health nursing*, *36*(7), 551-557.

Peart, T., Kerr, D., & Searby, A. (2023). Novice nurses' experiences in provision of mental ill health care within a regional emergency department: A descriptive qualitative study. *International Journal of Mental Health Nursing*, *32*(2), 458-468.

Peluso, M. J., Lewis, S. n. W., Barnes, T. R., & Jones, P. B. (2012). Extrapyramidal motor side-effects of first-and second-generation antipsychotic drugs. *The British Journal of Psychiatry*, *200*(5), 387-392.

Pezalla, A. E., Pettigrew, J., & Miller-Day, M. (2012). Researching the researcher-as-instrument: an exercise in interviewer self-reflexivity. *Qualitative Research*, *12*(2), 165-185.

Pizzol, D., Trott, M., Butler, L., Barnett, Y., Ford, T., Neufeld, S. A., Ragnhildstveit, A., Parris, C. N., Underwood, B. R., & Sánchez, G. F. L. (2023). Relationship between severe mental illness and physical multimorbidity: a meta-analysis and call for action. *BMJ Ment Health*, *26*(1).

Plant, L. D., & White, J. H. (2013). Emergency room psychiatric services: a qualitative study of nurses' experiences. *Issues in mental health nursing*, *34*(4), 240-248.

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., Britten, N., Roen, K., & Duffy, S. (2006). Guidance on the conduct of narrative synthesis in systematic reviews. *A product from the ESRC methods programme Version*, *1*, b92.

Protani, M. M., Alotiby, M. K. N., Seth, R., Lawrence, D., Jordan, S. J., Logan, H., Kendall, B. J., Siskind, D., Sara, G., & Kisely, S. (2022). Colorectal cancer treatment in people with severe mental illness: a systematic review and meta-analysis. *Epidemiology and Psychiatric Sciences*, *31*, e82.

Public Health England. (2018). *Severe mental illness (SMI) and physical health inequalities: briefing*. Retrieved 05 September 2025 from https://www.gov.uk/government/publications/severe-mental-illness-smi-physical-health-inequalities/severe-mental-illness-and-physical-health-inequalities-briefing#:~:text=%5Bfootnote%2032%5D.-,SMI%20and%20interventions%20to%20improve%20physical%20health,of%20employment%20and%20social%20stigma

Pursio, K., Kankkunen, P., Sanner-Stiehr, E., & Kvist, T. (2021). Professional autonomy in nursing: An integrative review. *Journal of nursing management*, *29*(6), 1565-1577.

Regev, S., & Josman, N. (2020). Evaluation of executive functions and everyday life for people with severe mental illness: A systematic review. *Schizophrenia Research: Cognition*, *21*, 100178.

Rehman, A. A., & Alharthi, K. An Introduction to Research Paradigms.

Rehman, A. A., & Alharthi, K. (2016). An introduction to research paradigms. *International journal of educational investigations*, *3*(8), 51-59.

Reilly, S., Olier, I., Planner, C., Doran, T., Reeves, D., Ashcroft, D. M., Gask, L., & Kontopantelis, E. (2015). Inequalities in physical comorbidity: a longitudinal comparative cohort study of people with severe mental illness in the UK. *Bmj Open*, *5*(12), e009010.

Reiners, G. M. (2012). Understanding the differences between Husserl's (descriptive) and Heidegger's (interpretive) phenomenological research. *Journal of Nursing & Care*, *1*(5), 1-3.

Risan, P., Binder, P.-E., & Milne, R. J. (2018). Establishing and maintaining rapport in investigative interviews of traumatized victims: A qualitative study. *Policing: A Journal of Policy and Practice*, *12*(4), 372-387.

Robinson, S., & Griffiths, P. (2007). Nursing education and regulation: international profiles and perspectives.

Robson, D., & Gray, R. (2007). Serious mental illness and physical health problems: A discussion paper. *International journal of nursing studies*, *44*(3), 457-466. https://doi.org/http://dx.doi.org/10.1016/j.ijnurstu.2006.07.013

Robson, D., Haddad, M., Gray, R., & Gournay, K. (2013). Mental health nursing and physical health care: A cross-sectional study of nurses' attitudes, practice, and perceived training needs for the physical health care of people with severe mental illness. *International Journal of Mental Health Nursing*, *22*(5), 409-417.

Rodrigues, M., Wiener, J. C., Stranges, S., Ryan, B. L., & Anderson, K. K. (2021). The risk of physical multimorbidity in people with psychotic disorders: A systematic review and meta-analysis. *Journal of psychosomatic research*, *140*, 110315.

Rothmore, J. (2020). Antidepressant-induced sexual dysfunction. *Medical Journal of Australia*, *212*(7).

Royal College of Psychiatrists. (2023). *Over 26,000 adults with severe mental illness die prematurely from preventable illness each year*. Royal College of Psychiatrists. Retrieved 02 September 2024 from https://www.rcpsych.ac.uk/news-and-features/latest-news/detail/2023/05/17/over-26-000-adults-with-severe-mental-illness-die-prematurely-from-preventable-illness-each-year#:~:text=Most%20worryingly%2C%20the%20mortality%20gap,without%20a%20severe%20mental%20illness.

Ryan, A., Herrera, S., & Patel, M. (2021). Emergency Nurses' Experiences in Treating Patients With Mental Illness: A Qualitative, Interpretive Metasynthesis. *Journal of Emergency Nursing*, *47*(6), 852-859.

Sagen, S. H., Hummelsund, D., & Binder, P.-E. (2013). Feeling accepted: A phenomenological exploration of adolescent patients' experiences of the relational qualities that enable them to express themselves freely. *European Journal of Psychotherapy & Counselling*, *15*(1), 53-75.

Saha, S., Chant, D., & McGrath, J. (2007). A systematic review of mortality in schizophrenia: is the differential mortality gap worsening over time? *Archives of General Psychiatry*, *64*(10), 1123-1131.

Sanjeevkumar, V. V., Kumar M, D., & Hu, Y. (2012). Effect of contextual factors of training on training effectiveness study in Kedah State Development Corporation, Kedah Malaysia. *Pratibimba: The Journal of IMIS*, *12*(1), 7-19.

Sato, S., Nakanishi, M., Ogawa, M., Abe, M., Yasuma, N., Kono, T., Igarashi, M., Iwanaga, M., Kawaguchi, T., & Yamaguchi, S. (2023). Rehospitalisation rates after long-term follow-up of patients with severe mental illness admitted for more than one year: a systematic review. *Bmc Psychiatry*, *23*(1), 788.

Scheid, T. L., & Wright, E. R. (2017). *A Handbook for the Study of Mental Health: Social Contexts, Theories, and Systems* (3rd Edition ed.). Cambridge University Press.

Schoot, T. S., Molmans, T. H., Grootens, K. P., & Kerckhoffs, A. P. (2020). Systematic review and practical guideline for the prevention and management of the renal side effects of lithium therapy. *European Neuropsychopharmacology*, *31*, 16-32.

Scott, D., & Happell, B. (2011). The high prevalence of poor physical health and unhealthy lifestyle behaviours in individuals with severe mental illness. *Issues in mental health nursing*, *32*(9), 589-597.

Seaman, P., & Eves, A. (2010). Perceptions of hygiene training amongst food handlers, managers and training providers–A qualitative study. *Food Control*, *21*, 1037-1041.

Shenge, N. A. (2014). Training evaluation: Process, benefits, and issues.
Sloan, A., & Bowe, B. (2014). Phenomenology and hermeneutic phenomenology: The philosophy, the methodologies, and using hermeneutic phenomenology to investigate lecturers' experiences of curriculum design. *Quality & Quantity*, *48*, 1291-1303.
Solmi, M., Murru, A., Pacchiarotti, I., Undurraga, J., Veronese, N., Fornaro, M., Stubbs, B., Monaco, F., Vieta, E., & Seeman, M. V. (2017). Safety, tolerability, and risks associated with first-and second-generation antipsychotics: a state-of-the-art clinical review. *Therapeutics and clinical risk management*, 757-777.
Strunz, M., Jiménez, N. P. n., Gregorius, L., Hewer, W., Pollmanns, J., Viehmann, K., & Jacobi, F. (2022). Interventions to promote the utilization of physical health care for people with severe mental illness: A scoping review. *International Journal of Environmental Research and Public Health*, *20*(1), 126.
Sung, S. C., Jiang, H. H., Chen, R. R., & Chao, J. K. (2016). Bridging the gap in sexual healthcare in nursing practice: implementing a sexual healthcare training programme to improve outcomes. *Journal of Clinical Nursing*, *25*(19-20), 2989-3000.
Tamkin, P., Yarnall, J., & Kerrin, M. (2002). *Kirkpatrick and beyond: a review of models of training evaluation*. Institute for Employment Studies Brighton, England.
Terry, J., & Cutter, J. (2013). Does education improve mental health practitioners' confidence in meeting the physical health needs of mental health service users? A mixed methods pilot study. *Issues in mental health nursing*, *34*(4), 249-255.
Tong, A., Flemming, K., McInnes, E., Oliver, S., & Craig, J. (2012). Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. *BMC medical research methodology*, *12*(1), 1-8.
Topno, H. (2012). Evaluation of training and development: An analysis of various models. *Journal of Business and Management*, *5*(2), 16-22.
Tosh, G., Clifton, A. V., Xia, J., & White, M. M. (2014). Physical health care monitoring for people with serious mental illness. *Cochrane Database of Systematic Reviews*(1).
Trainor, L. R., & Bundon, A. (2020). Developing the craft: reflexive accounts of doing reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 1-22.
Tuschick, E., Barker, J., Giles, E. L., Jones, S., Hogg, J., Kanmodi, K. K., Sill, J., & Sykes, K. (2024). Barriers and facilitators for people with severe mental illness accessing cancer screening: A systematic review. *Psycho-Oncology*, *33*(1), e6274.
Tuudah, E., Foye, U., Donetto, S., & Simpson, A. (2022). Non-Pharmacological Integrated Interventions for Adults Targeting Type 2 Diabetes and Mental Health Comorbidity: A Mixed-Methods Systematic Review. *International journal of integrated care*, *22*(0), 27. https://doi.org/10.5334/ijic.5960
Tyler, L., Joggyah, R., & Clemett, V. (2019). Simulation-based nurse education for comorbid health problems: A systematic review. *Clinical Simulation in Nursing*, *37*, 50-61.
Tzeng, W. C., Su, P. Y., Yeh, S. H., Chang, T. W., Lin, C. H., & Feng, H. P. (2023). Nurses' views on the provision of physical healthcare for individuals with comorbid mental illness and chronic disease. *International Journal of Mental Health Nursing*, *32*(1), 199-211.
UK Government. (2012). *Health and Social Care Act*. UK Government. Retrieved 20 April 2020 from http://www.legislation.gov.uk/ukpga/2012/7/contents/enacted
Unluer, S. (2012). Being an insider researcher while conducting case study research. *Qualitative Report*, *17*, 58.
Virgolesi, M., Marchetti, A., Pucciarelli, G., Biagioli, V., Pulimeno, A. M. L., Piredda, M., & De Marinis, M. G. (2020). Stakeholders' perspective about their engagement in developing a competency-based nursing baccalaureate curriculum: A qualitative study. *Journal of Professional Nursing*, *36*(3), 141-146.
Walker, S., & McAndrew, S. (2015). The same but different: discussing the literature regarding mental health nurses' difficulty in meeting the physical health needs of service users,

regardless of differing education programmes. *Journal of Psychiatric and Mental Health Nursing*, *22*(8), 640-646. https://doi.org/10.1111/jpm.12220

Wand, T., & Murray, L. (2008). Let's get physical. *International Journal of Mental Health Nursing*, *17*(5), 363-369.

Warner, M., & Zaranko, B. (2023). Implications of the NHS workforce plan. *Institute for Fiscal Studies, link*.

Warrender, D., Connell, C., Jones, E., Monteux, S., Colwell, L., Laker, C., & Cromar-Hayes, M. (2024). Mental health deserves better: Resisting the dilution of specialist pre-registration mental health nurse education in the United Kingdom. *International Journal of Mental Health Nursing*, *33*(1), 202-212.

Warrender, D., Ramsay, M., & Hurley, J. (2023). Mental health nurse education: a contemporary view in the debate between generic and specialist approaches. *Mental Health Practice*, *26*(4).

Watkins, A., Stein-Parbury, J., Denney-Wilson, E., Ward, P. B., & Rosenbaum, S. (2020). Upskilling Mental Health Nurses to Address the Burden of Poor Metabolic Health: A Mixed Method Evaluation. *Issues in mental health nursing*, *41*(10), 925-931.

Willis, P. J. (2015). *Raising the Bar. Shape of Caring: A Review of The Future Education and Training of Registered Nurses and Care Assistants*. Health Education England. Retrieved 07 April 2024 from https://www.hee.nhs.uk/sites/default/files/documents/2348-Shape-of-caring-review-FINAL.pdf

Wojnar, D. M., & Swanson, K. M. (2007). Phenomenology: an exploration. *Journal of Holistic Nursing*, *25*(3), 172-180.

World Health Organisation. (2014). *The social determinants of mental health*. WHO. Retrieved 31 August 2024 from https://www.who.int/publications/i/item/9789241506809

World Health Organisation. (2022a). *Mental Disorders*. WHO. Retrieved 01 September 2024 from https://www.who.int/news-room/fact-sheets/detail/mental-disorders

World Health Organisation. (2022b). *Mental Health*. WHO. Retrieved 31 August 2024 from https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response

Xu, Y., Shao, M., Fang, X., Tang, W., Zhou, C., Hu, X., Zhang, X., & Su, K.-P. (2022). Antipsychotic-induced gastrointestinal hypomotility and the alteration in gut microbiota in patients with schizophrenia. *Brain, Behavior, and Immunity*, *99*, 119-129.

Appendices

Appendix 1. Full string of search terms and electronic database search results

Web of science search 19.02.21

1

475

TOPIC:

(chronic mental illness or serious mental illness* or severe mental illness* or psychosis or schizophrenia or bipolar disorder or schizoaffective disorder or hypomania or mania)

AND

TOPIC:

(physical health or physical wellbeing or physical screening or physical activity or metabolic syndrome or diabetes or cardiovascular disease* or hypertension)

AND

TOPIC:

(need* or learning or education or training or seminar* or workshop* or continuing professional development or course*)

AND

TOPIC:

(nurse* or health worker* or health care assistant* or support worker* or manager* or instructor* or tutor* or trainer*)

Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1990-2021

EMBASE search 19.02.21

1. ((chronic mental illness or serious mental illness* or severe mental illness* or psychosis or schizophrenia or bipolar disorder or schizoaffective disorder or hypomania or mania) and (physical health or physical wellbeing or physical screening or physical activity or metabolic syndrome or diabetes or cardiovascular disease* or hypertension) and (need* or learning or education or training or seminar* or workshop* or continuing professional development or course*) and (nurse* or health worker* or health care assistant* or support worker* or manager* or instructor* or tutor* or trainer*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]

2. limit 1 to (english language and yr="1990 - 2020")

3. limit 2 to (human and english language and yr="1990 -Current")

322 results

Medline Search 19.02.2021

S1

(chronic mental illness or serious mental illness* or severe mental illness* or psychosis or schizophrenia or bipolar disorder or schizoaffective disorder or hypomania or mania) AND (physical health or physical wellbeing or physical screening or physical activity or metabolic syndrome or diabetes or cardiovascular disease* or hypertension) AND (need* or learning or education or training or seminar* or workshop* or continuing professional development or course*) AND ((nurse* or health wor ...

Limiters - Date of Publication: 19900101-20210231; English Language

Search modes - Find all my search terms

View Results (475)View DetailsEdit

Cinahl Search 19.02.2021

S1

(chronic mental illness or serious mental illness* or severe mental illness* or psychosis or schizophrenia or bipolar disorder or schizoaffective disorder or hypomania or mania) AND (physical health or physical wellbeing or physical screening or physical activity or metabolic syndrome or diabetes or cardiovascular disease* or hypertension) AND (need* or learning or education or training or seminar* or workshop* or continuing professional development or course*) AND ((nurse* or health wor ...

Limiters - Published Date: 19900101-20210231; English Language

Search modes - Find all my search terms

View Results (364)View DetailsEdit

PsycInfo 19.02.2021

S1

(chronic mental illness or serious mental illness* or severe mental illness* or psychosis or schizophrenia or bipolar disorder or schizoaffective disorder or hypomania or mania) AND (physical health or physical wellbeing or physical screening or physical activity or metabolic syndrome or diabetes or cardiovascular disease* or hypertension) AND (need* or learning or education or training or seminar* or workshop* or continuing professional development or course*) AND ((nurse* or health wor ...

Limiters - Published Date: 19900101-20210231; English

Search modes - Find all my search terms

View Results (577)View DetailsEdit

Appendix 2. Hawker et al. (2002) critical appraisal tool, scoring guide and results

Hawker et al (2002) Quality scoring tool

Author(s): Date of Publication:

Abbreviated Title:

Assessor: Date Assessed:

Study Design Location of Study: Sample—Description:

[ ] Quantitative

[ ] Qualitative Sample—Size:

[ ] Combination

Aim:

Research Questions/Hypothesis (If Any):

Method and Analysis:

Intervention (If Applicable):

Results:

Conclusions, Comments, and Issues Raised

Hawker et al. (2002) Quality Scoring Tool

	Good	Fair	Poor	Very Poor
1. Abstract and title				
2. Introduction and aims				
3. Method and data				
4. Sampling				
5. Data analysis				
6. Ethics and bias				

7. Findings/results
8. Transferability/generalizability
9. Implications and usefulness
Total

Scoring Guide

1.Abstract and title: Did they provide a clear description of the study?

Good: Structured abstract with full information and clear title.

Fair: Abstract with most of the information.

Poor: Inadequate abstract.

Very Poor: No abstract.

2. Introduction and aims: Was there a good background and clear statement of the aims of the research?

Good : Full but concise background to discussion/study containing up-to date literature review and highlighting gaps in knowledge. Clear statement of aim AND objectives including research questions.

Fair :Some background and literature review. Research questions outlined.

Poor : Some background but no aim/objectives/questions, OR Aims/objectives but inadequate background.

Very Poor: No mention of aims/objectives. No background or literature review.

3. Method and data: Is the method appropriate and clearly explained?

Good : Method is appropriate and described clearly (e.g., questionnaires included). Clear details of the data collection and recording.

Fair: Method appropriate, description could be better. Data described.

Poor: Questionable whether method is appropriate. Method described inadequately. Little description of data.

Very Poor: No mention of method, AND/OR Method inappropriate, AND/OR No details of data.

4. Sampling:

Was the sampling strategy appropriate to address the aims?

Good: Details (age/gender/race/context) of who was studied and how they were recruited. Why this group was targeted. The sample size was justified for the study. Response rates shown and explained.

Fair: Sample size justified. Most information given, but some missing.

Poor: Sampling mentioned but few descriptive details.

Very Poor: No details of sample.

5. Data analysis: Was the description of the data analysis sufficiently rigorous?

Good: Clear description of how analysis was done. Qualitative studies: Description of how themes derived/ respondent validation or triangulation. Quantitative studies: Reasons for tests selected hypothesis driven/ numbers add up/statistical significance discussed.

Fair- Qualitative: Descriptive discussion of analysis. Quantitative.

Poor: Minimal details about analysis.

Very Poor: No discussion of analysis.

6. Ethics and bias:

Have ethical issues been addressed, and what has necessary ethical approval gained? Has the relationship between researchers and participants been adequately considered?

Good Ethics: Where necessary issues of confidentiality, sensitivity, and consent were addressed. Bias: Researcher was reflexive and/or aware of own bias.

Fair: Lip service was paid to above (i.e., these issues were acknowledged).

Poor: Brief mention of issues.

Very Poor: No mention of issues.

7. Results: Is there a clear statement of the findings?

Good: Findings explicit, easy to understand, and in logical progression. Tables, if present, are explained in text. Results relate directly to aims. Sufficient data are presented to support findings.

Fair: Findings mentioned but more explanation could be given. Data presented relate directly to results.

Poor: Findings presented haphazardly, not explained, and do not progress logically from results.

Very Poor: Findings not mentioned or do not relate to aims.

8. Transferability or generalizability: Are the findings of this study transferable (generalizable) to a wider population?

Good: Context and setting of the study is described sufficiently to allow comparison with other contexts and settings, plus high score in Question 4 (sampling).

Fair: Some context and setting described, but more needed to replicate or compare the study with others, PLUS fair score or higher in Question 4.

Poor: Minimal description of context/setting.

Very Poor: No description of context/setting.

9. Implications and usefulness: How important are these findings to policy and practice?

Good: Contributes something new and/or different in terms of understanding/insight or perspective. Suggests ideas for further research. Suggests implications for policy and/or practice.

Fair: Two of the above (state what is missing in comments).

Poor: Only one of the above.

Very Poor: None of the above.

Quality scoring table tool, scoring and results using Hawker et al. 2002 tool

Study	Abstract/title	Introduction/aims	Data collection	Sampling	Data analysis	Ethics/bias	Results	Generalisability	Usefulness	Total
Foster et al. (2013)	4	4	4	3	4	4	4	3	4	34
Haddad et al. (2016)	4	4	3	3	3	4	4	3	4	32
Terry and Cutter (2013)	4	4	3	3	3	4	4	3	4	32
Baker et al. (2014)	4	4	3	3	3	4	4	3	4	32
Sung et al. (2016)	4	4	4	3	4	4	4	3	4	34
Watkins et al. (2020)	4	4	3	3	3	4	4	3	4	32

Lavelle et al. (2017)	4	4	3	3	3	4	4	3	4	32
Happell et al. (2013a)	4	4	4	3	4	4	4	3	4	34
Mwebe et al. (2017)	4	4	3	3	3	4	4	3	4	32
Çelik Ince et al. (2018)	4	4	3	3	3	4	4	3	4	32
Happell et al. (2013b)	4	4	4	3	4	4	4	3	4	34

Appendix 3: Letter of ethics approval

Faculty of Health and Medicine Research Ethics Committee (FHMREC) ethical approval letter

Approval of a new application

Applicant: Lamin Jabbie
Subject: Ethics approval FHMREC ref: FHMREC21020

01/03/2022

Dear Lamin,

Thank you for submitting your research ethics application for the above project for review. The application has been reviewed by members of the FHM Research Ethics Committee and I can confirm that approval has been granted for this project.

As principal investigator your responsibilities include:

-ensuring that (where applicable) all the necessary legal and regulatory requirements in order to conduct the research are met, and the necessary licenses and approvals have been obtained;
-reporting any ethics-related issues that occur during the course of the research or arising from the research to the Research Ethics Officer via this email address (e.g. unforeseen ethical issues, complaints about the conduct of the research, adverse reactions such as extreme distress);
-submitting details of proposed substantive amendments to the protocol to the Research Ethics Officer for approval.

Please contact me on fhmresearchsupport@lancaster.ac.uk if you have any queries or require further information.

Best wishes,
Annie

Annie Beauchamp | Research Ethics Officer (FST/FHM)
Research and Enterprise Services | Lancaster University
Contact me on Microsoft Teams (for enquiries not related to REC applications)

I work flexibly so may send or respond to emails outside of standard office hours. There is no expectation for you to respond outside of your working hours.

Please note I do not work on Friday afternoons.

Pronouns: She/Her
Click here to hear my surname

www.lancaster.ac.uk

Appendix 4 HRA approval letter 09/08/2022

Dear Professor Walshe

RE: IRAS 300962 PHEST: Physical health care and staff training. HRA & HCRW Approval issued

Please find attached your HRA and HCRW letter of Approval.

You may now commence your study at those participating NHS organisations in England and Wales that have confirmed their capacity and capability to undertake their role in your study (where applicable). Detail on what form this confirmation should take, including when it may be assumed, is provided in the HRA and HCRW Approval letter.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website: https://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/.

If you have any queries please do not hesitate to contact me.

Kind regards,

Libby Williamson

Approvals Specialist

Health Research Authority

3rd Floor | Barlow House | 4 Minshull Street | Manchester | M1 3DZ

E. libby.williamson@hra.nhs.uk

T. 0207 104 8282

W. www.hra.nhs.uk

Sign up to receive our newsletter HRA Latest.

Appendix 5 NHS trust confirmation of capacity and capability letter

(anonymised)

Dear Lamin

This email confirms that XXXXXX NHS Foundation Trust has
the capacity and capability to deliver the study referenced below. Please find attached our completed Organisational Information Document as confirmation. We agree to start this study on 01/10/2022 as previously agreed.

1.* IRAS Project ID	300962
2.* Full Title of the Study	Physical health care and staff training: an exploration of the experiences of mental health nurses, managers of mental health nurses and trainers in physical health care.
3.* Legal Name(s) of Sponsor/Co-Sponsors/Joint-Sponsors	Lancaster University

I wish you every success.

Appendix 6 Letter of Invitation

Letter of Invitation

Lamin Jabbie

Department of Health Research

Lancaster University

Lancaster LA1 4YG

Tel: 01524510124

Email: l.jabbie@lancaster.ac.uk

Date: ……..

Dear Sir/Madam,

My name is Lamin Jabbie, and I am conducting this research as a student in the PhD public Health programme at Lancaster University, Lancaster, United Kingdom. I am writing to invite you to take part in a study to understand the experiences and perceptions of mental health nurses, managers of mental health nurses and trainers in physical health care in providing and supporting physical health care and training. Taking part in this study means that you may be interviewed once or twice by myself.

In this information pack, you will find a participant information sheet which will tell you more about this study. You will have the opportunity to think about whether you want to participate in the study. If you decide that you want to take part in this study, please reply directly to this email (email address: l.jabbie@lancaster.ac.uk) and I will contact you again to answer any questions you may have. Unfortunately, if we have a large number of people who want to take part, we may not be able to interview everyone.

Yours sincerely,

Lamin Jabbie

PhD student Researcher

Health Research | Lancaster University

Appendix 7 Participant Information Sheet

Title of Study

Physical health care and staff training: an exploration of the experiences of mental health nurses, managers of mental health nurses and trainers in physical health care.

My name is Lamin Jabbie, and I am conducting this research as a student in the PhD public Health programme at Lancaster University, Lancaster, United Kingdom. This study is sponsored by Lancaster University, United Kingdom.

What is the study about?
The purpose of this study is to understand and explore in-depth mental health nurses', managers' and trainers' perspectives and experiences of physical health care and training. By exploring in-depth three groups of respondents (mental health nurses, trainers in physical health care, managers of mental health nurses), the experiences can be evaluated from different social perspectives and gaps may be identified regarding training needs of mental health nurses and effectiveness of training.

Why have I been approached?
You have been approached because you are a mental health nurse, health care assistant, trainer in physical health care, ward manager, modern matron or quality and governance manager and you are being invited to share your experiences and perceptions of physical health care and training.

Do I have to take part?

No. It's completely up to you to decide whether you take part or not. If you decide to take part, you can withdraw at any time without providing a reason. However, once your data has been anonymised and incorporated into themes it might not be possible for it to be withdrawn, though every attempt will be made to extract your data, up to the point of publication

What will I be asked to do if I take part?
If you decide you would like to take part, you would be asked to provide written or verbal consent. The researcher will contact you by email or phone to confirm this. You will asked to

provide introductory details about yourself, any training you have received in physical health care, your involvement and experience in physical health care delivery or supporting training and invited to a 30–60-minute interview by telephone, face to face or online platform.

Will my data be Identifiable?

The data collected for this study will be stored securely in Lancaster University's approved secure cloud storage accessible via VPN or remote desktop and only the researchers conducting this study will have access to this data. If a professional transcriber is required, he/she will sign a confidentiality agreement form.

- Audio recordings will be destroyed and/or deleted once the project has been submitted for publication/examined
- Hard copies of questionnaires will be kept in a locked cabinet.
- The files on the computer will be encrypted (that is no-one other than the researcher will be able to access them) and the computer itself password protected.
- At the end of the study, hard copies of questionnaires will be kept securely in a locked cabinet for ten years. At the end of this period, they will be destroyed.
- The typed version of your interview will be made anonymous by removing any identifying information including your name. Anonymised direct quotations from your interview may be used in the reports or publications from the study, so your name will not be attached to them. Anything identifiable will be removed from the quote. All reasonable steps will be taken to protect the anonymity of the participants involved in this project.
- All your personal data will be confidential and will be kept separately from your interview responses.

There are some limits to confidentiality: if what is said in the interview makes me think that you, or someone else, is at significant risk of harm, I will have to break confidentiality and speak to a member of staff about this. If possible, I will tell you if I have to do this.

What will happen to the results?

The results will be summarised and reported in a thesis and may be submitted for publication in an academic or professional journal. The findings may also be disseminated in professional conferences via oral presentations and to policy makers. Anonymised direct quotations from your interview may be used in the reports or publications from the study, so your name will not be attached to them. Anything identifiable will be removed from the quote.

Are there any risks?

There are no risks anticipated with participating in this study. However, if you experience any distress following participation you are encouraged to inform the researcher and contact the resources provided at the end of this sheet.

Are there any benefits to taking part?

Even though there may be no direct benefits from participating in the study, the mental health nurses may be able to reflect on their training needs, skills or experience with the potential to influence practice. Managers and trainers might also reflect on results, benefits

and costs of training and how future training may be improved. The published findings from this study may also contribute to limited research in this area to support training in physical health care and improve experience and outcomes for service users.

Who has reviewed the project?

This study has been reviewed by the Faculty of Health and Medicine Research Ethics Committee at Lancaster University. This study has also been reviewed and approved by Health Research Authority (HRA) in England.

Where can I obtain further information about the study if I need it?
If you have any questions about the study, please contact the main researcher:

Name: Lamin Jabbie email: l.jabbie@lancaster.ac.uk
PhD student Researcher
Department of Health Research
Lancaster University
Lancaster LA1 4YG
OR

Research Supervisors

(1) Catherine Walshe
Professor of palliative care
Department of Health Research
Lancaster University
Lancaster LA1 4YG

Email: C.Walshe@lancaster.ac.uk

(2) Dr Faraz Ahmed
Lecturer in Health Inequalities
Department of Health Research
Lancaster University
Lancaster LA1 4YG
Faraz.Ahmed@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 Fiona Lobban
Director of Research
Division of Health Research
Lancaster University
Lancaster LA1 4YG

Tel:
Email: f.lobban@lancaster.ac.uk

If you wish to speak to someone outside of the Division of Health Research, you may also contact:

Dr Laura Machin Tel: +44 (0)1524 594973
Chair of FHM REC Email: l.machin@lancaster.ac.uk
Faculty of Health and Medicine
(Lancaster Medical School)
Lancaster University
Lancaster
LA1 4YG

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

Resources in the event of distress

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

- Your local GP

- Support from MIND services http://www.mind.org.uk/information-support/helplines/ or Tel: 0300 123 3393

-Support from Samaritans
Telephone: 116 123
Email: jo@samaritans.org
Website: www.samaritans.org

-Sane Line
Telephone: 0300 304 7000 (4:30pm – 10:30pm every evening)
Textcare: www.sane.org.uk/what_we_do/support/textcare
Support Forum: www.sane.org.uk/what_we_do/support/supportforum
Website: www.sane.org.uk

-Support Line
Telephone: 01708 765200
E-mail: info@supportline.org.uk
Website: www.supportline.org.uk

Appendix 8 Consent form

Consent Form

Study Title:
Physical health care and staff training: an exploration of the experiences of mental health nurses, managers of mental health nurses and trainers in physical health care.

We are asking if you would like to take part in a research project to understand and explore in-depth mental health nurses', managers' and trainers' perspectives and experiences of physical health care and training. Before you consent to participating in the study, we ask that you read the participant information sheet and mark each box below with your initials if you agree. If you have any questions or queries before signing the consent form please speak to the principal investigator, Lamin Jabbie.

1. I confirm that I have read the information sheet and fully understand what is expected of me within this study ☐
2. I confirm that I have had the opportunity to ask any questions and to have them answered. ☐
3. I understand that my interview will be audio recorded and then made into an anonymised written transcript. ☐
4. I understand that audio recordings will be kept until the research project has been examined. ☐
5. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected. ☐
6. I understand that once my data have been anonymised and incorporated into themes it might not be possible for it to be withdrawn, though every attempt will be made to extract my data, up to the point of publication. ☐
7. I understand that the information from my interview will be pooled with other participants' responses, anonymised and may be published; all reasonable steps will be taken to protect the anonymity of the participants involved in this project. ☐
8. I consent to information and quotations from my interview being used in reports, conferences and training events.
9. I understand that the researcher will discuss data with their supervisor as needed. ☐

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

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

12. I consent to take part in the above study. ☐

Name of Participant_____ Signature_____ Date

Name of Researcher _____Signature _____Date

Appendix 9 Expression of interest form

Please tick one box only or delete as appropriate:

☐ I am interested in taking part in the study and would like to be contacted to find out more about it

☐ I am not interested in taking part in the study.

Please complete:

Today's date: __ / __ / ____

Name: _____

Work Address: _____

_____

_____

Telephone number: _____

Email address: _____

Appendix 10 Interview schedules or topic guides for participants

Sample topic guide for mental health nurses

-Summarising personal experience of providing physical health care for patients with mental illness. Tell me about your experience of providing physical health care for your patients? What does physical health care mean to you?

What did you learn from this experience?

-Exploring the experience and perceptions of training received in physical health care. Tell me about your experience of your physical health training? How do you feel about your training? What does success mean to you? What has been helpful and not so helpful? What could be improved?

-Exploring what support is important in providing physical health care, why, and whether any training received has influenced this**.**

Sample topic guide for interviews with managers and trainers

-Tell me about your experiences in supporting physical health care and training for mental health nurses? What does this mean to you? Tell me about your organisational policies and procedures that support training.

-Probing events-Could you tell me a bit more about the challenges in providing or supporting training? How do you feel about this? Is there anything more you could have done? Is there any learning from this experience?

-Summarising perceptions on any changes as a result of training or supporting training. What does success of training mean to you?

Appendix 11 Sample initial codes developed in NVIVO 12

Name	Description	Files	References
A&E referrals		1	1
adhoc training		2	3
Adverse incidents		3	6
Anxieties about physical health care		1	2
Attitude towards physical health care		10	18
Bitesize training		2	3
Care planning		1	1
Career advancement and champion roles		5	12
Changing piorities		1	1
clinical audits		6	10
Clinical cases		2	3
communication		9	13
Competencies in physical health		3	6
Continued monitoring		2	4
cultural problem		7	11
Delegating physical health tasks to junior staff		4	5
Digital physical health passport		1	1
Digitalisation of equipment		1	3

Name	Description	Files	References
Discussion in MDT meetings		2	3
Disparities in practice		1	2
Disruptions to ward environment		1	2
equipment		8	13
Escalation		8	13
Exception report		1	1
Experential learning		2	4
Face to face training		7	7
Falls risk assessment		1	1
Foster engagement		3	4
Holistic care	Care that includes mental and physial health	2	2
Huddles and handovers		2	2
Impromptu training		1	2
Improvement in confidence		9	11
Improvement in knowlede and skills		5	10
Improvement in practice		9	20
Inadequate pre-registration training		6	11
Information and consultation		1	1
Inhouse training		4	5
Lack of confidence		3	5
Lack of incidences		2	3
Lack of knowledge and understanding		5	6

Name	Description	Files	References
Lack of participants		1	1
lack of screening		1	2
language		2	2
learning from incidents		3	6
Link between training and practice		5	8
Making training accessible		4	8
Making training relevant to patient group		1	1
Managerial support		6	7
Managing expectations		3	3
Managing side effects of medication		2	3
Mandatory training		2	4
mental state		5	6
Motivating service user		2	2
Need for coaching		2	5
Need for resources		3	7
Need to update		7	10
NEWS training		3	5
Nurses feeling out of depth		1	1
Nursing associate role		5	8
opportunity to perform		6	9
Organisational commitment		3	3
Organisational standards		2	3
Out of hours challenges		2	3

Name	Description	Files	References
personal responsibility		4	10
Physical health care strategy		3	3
Physical health skills lab		1	1
Physical health skills workshop		1	1
Physical healthcare meaning		7	8
Physical versus mental health		4	8
Picture of health		1	1
Preceptorship		2	2
Preventing serious incidents		2	3
Promoting healthy lifestyles		9	13
Rapid tranquillisation training		3	3
Rationale for intervention		3	6
Recording of observations		2	2
Referral pathways		6	8
Reflective practice		1	1
Release staff for training		5	8
Religion		1	1
role of physical health nurse		11	17
role play and scenario based learning		4	5
Screening		7	14
Self and online training		3	4
Service users lack of motivation and cooperation		6	7
Short staff		4	5

Name	Description	Files	References
Smoking cessation		3	3
Staff interest and motivation		2	4
Staff wellbeing		3	3
supervision and overview		4	7
Supporting personal development		2	5
Teamworking		4	5
Time factor		8	17
training availability		4	7
Training topics		0	0
Anaphylaxis		2	2
Basic life support		3	3
Catheter care		1	1
constipation		2	2
diabetes management training		5	7
Dysphagia		1	1
ECG training		3	3
Falls		1	1
Infection control		2	2
Injection administration		1	1
Manual blood pressure training		4	6
Manual handling		1	1
Neuro observations		1	1
Phlebotomy training		3	3

Name	Description	Files	References
Wound and skin care		3	5
Transfer of skills to juniors		5	8
Trust and individual focus		1	2
Valence of training		5	7

Appendix 12 Candidate themes developed in Nvivo 12 Project

Name	Description
Adverse incidents	
Care planning	
Clinical cases	
communication	
Digital physical health passport	
Digitalisation of equipment	
Disparities in practice	
Exception report	
Falls risk assessment	
Inadequate pre-registration training	
Information and consultation	
Lack of confidence	
Lack of knowledge and understanding	
lack of screening	
Link between training and practice	
Managing expectations	
Need for coaching	
NEED FOR RESOURCES AND SUPPORT	
equipment	
Lack of participants	

Name	Description
Managerial support	
Mandatory training	
Need for resources	
opportunity to perform	
Physical health skills lab	
Physical health skills workshop	
Release staff for training	
role of physical health nurse	
Role of professional nurse educator	
Short staff	
Supporting personal development	
Time factor	
training availability	
Need to update	
ORGANISATIONAL FACTORS	
Changing piorities	
cultural problem	
Making training relevant to patient group	
Organisational commitment	
Organisational standards	
Out of hours challenges	

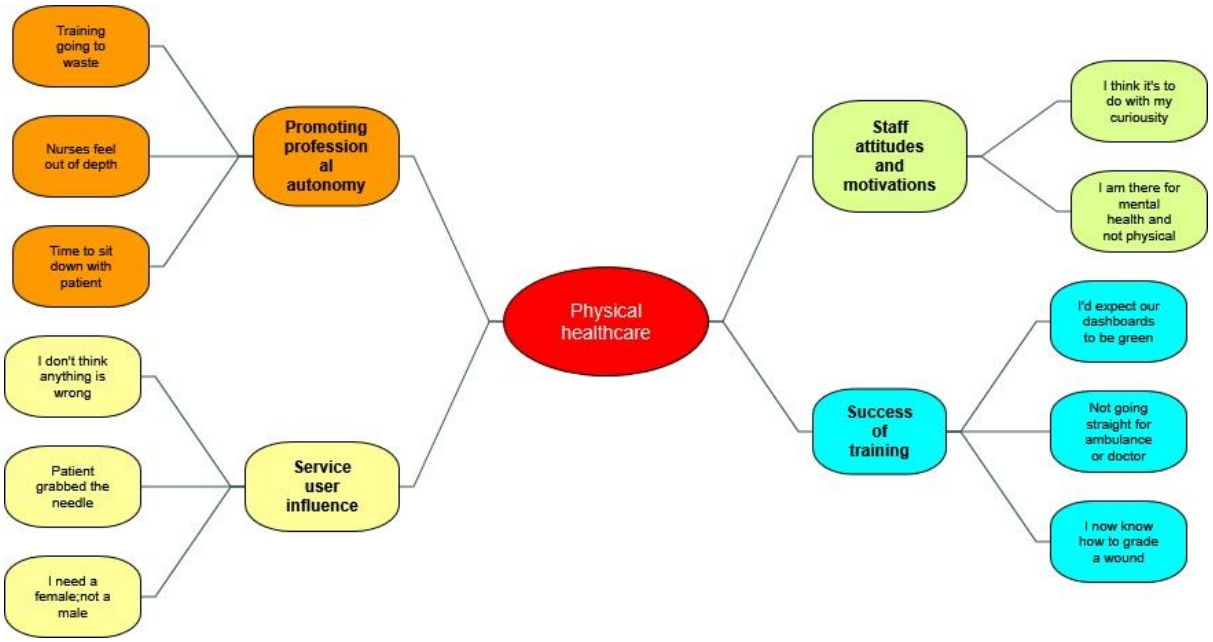
Name	Description
Physical health care strategy	
Poor training attendance	
Trust and individual focus	
PERCEIVED EFFECTIVENESS OF TRAINING	
A&E referrals	
clinical audits	
Competencies in physical health	
Discussion in MDT meetings	
Huddles and handovers	
Improvement in confidence	
Improvement in knowlede and skills	
Improvement in practice	
Lack of incidences	
Physical healthcare meaning	
Physical versus mental health	
Picture of health	
Preceptorship	
Preventing serious incidents	
Rationale for intervention	
ROLES AND RESPONSIBILITIES	
Continued monitoring	

Name	Description
Delegating physical health tasks to junior staff	
Escalation	
Holistic care	Care that includes mental and physial health
Managing side effects of medication	
personal responsibility	
Promoting healthy lifestyles	
Recording of observations	
Referral pathways	
Screening	
Smoking cessation	
supervision and overview	
Training	
Transfer of skills to juniors	
SERVICE USER FACTORS	
Communication difficulties	
Disruptions to ward environment	
Foster engagement	
language	
mental state	
Motivating service user	

Name	Description
Religion	
Service users lack of motivation and cooperation	
STAFF ATTITUDES AND MOTIVATIONS	
Anxieties about physical health care	
Attitude towards physical health care	
Career advancement and champion roles	
Making training accessible	
Nurses feeling out of depth	
Nursing associate role	
Staff interest and motivation	
Staff wellbeing	
Valence of training	
Teamworking	
TRAINING MODALITIES	
adhoc training	
Bitesize training	
Experential learning	
Face to face training	
Impromptu training	
Inhouse training	

Name	Description
learning from incidents	
Reflective practice	
role play and scenario based learning	
Self and online training	
TRAINING TOPICS	
Anaphylaxis	
Basic life support	
Catheter care	
constipation	
diabetes management training	
Dysphagia	
ECG training	
Falls	
Infection control	
Injection administration	
Manual blood pressure training	
Manual handling	
Neuro observations	
NEWS training	
Phlebotomy training	
Rapid tranquillisation training	
Wound and skin care	

Appendix 13 Thematic mapping of revised themes and subthemes



Appendix 14 Confidentiality Agreement for the Transcription of Qualitative Data

Name of Study: Physical health care and staff training: an exploration of the experiences of mental health nurses, managers of mental health nurses and trainers in physical health care

Study PI: Lamin Jabbie

In accordance with the Research Ethics Committee at Lancaster University (UREC), all participants in the above-named study are anonymised. Therefore any personal information or any of the data generated or secured through transcription will not be disclosed to any third party.

By signing this document, you are agreeing:

- not to pass on, divulge or discuss the contents of the audio material provided to you for transcription to any third parties
- to ensure that material provided for transcription is held securely and can only be accessed via password on your local PC
- to return transcribed material to the research team when completed by the agreed deadline and do so in password protected files
- to destroy any audio and electronic files held by you and relevant to the above study immediately after transcripts have been provided to the research team, or to return said audio files.
- to assist the University where a research participant has invoked one of their rights under data protection legislation
- to report any loss, unscheduled deletion, or unauthorised disclosure of the audio material to any third parties, to the University immediately
- only act on the written instructions of the University/researcher

- to, upon reasonable request, allow the researcher, or other University representative, to inspect the location and devices where the audio material is stored to ensure compliance with this agreement
- to inform the University's Data Protection Officer if you believe you believe you have been asked to do something with the audio material which contravenes applicable data protection legislation

- to not employ any other person to carry out the work on your behalf.

Your name (block capitals) _____

Address at which transcription will take place

_____

_____

Your signature _____

Date _____

Appendix 15 Braun & Clarke 2021 Twenty questions to guide assessment of TA research quality

Questions to evaluate quality of reflexive thematic analysis	**Evaluation**
Do the authors explain why they are using thematic analysis (TA), even if only briefly?	Yes
Do the authors clearly specify and justify which type of TA they are using?	Yes
Is the use and justification of the specific type of TA consistent with the research questions or aims?	Yes
Is there a good 'fit' between the theoretical and conceptual underpinnings of the research and the specific type of TA (i.e. is there conceptual coherence)?	Yes
Is there a good 'fit' between the methods of data collection and the specific type of TA?	Yes-collecting data using interviews is aligned with reflexive thematic analysis
Is the specified type of TA consistently enacted throughout the paper?	Yes, reflexive thematic analysis is consistently applied
Is there evidence of problematic assumptions about, and practices around, TA? These commonly include: • Treating TA as one, homogenous, entity, with one set of – widely agreed on – procedures. ---------- • Combining philosophically and procedurally incompatible approaches to TA without any acknowledgement or explanation. ---------- • Confusing summaries of data topics with thematic patterns of shared meaning, underpinned by a core concept. ---------- • Assuming grounded theory concepts and procedures (e.g. saturation, constant comparative analysis, line-by-line coding) apply to TA without any explanation or justification. ---------- • Assuming TA is essentialist or realist, or atheoretical. ---------- • Assuming TA is only a data reduction or descriptive approach and therefore must	No ---------- No ---------- No ---------- No. Grounded theory concepts not applicable to the research ---------- No - ---------- No

be supplemented with other methods and procedures to achieve other ends.	
Are any supplementary procedures or methods justified, and necessary, or could the same results have been achieved simply by using TA more effectively?	No
Are the theoretical underpinnings of the use of TA clearly specified (e.g. ontological, epistemological assumptions, guiding theoretical framework(s)), even when using TA inductively (inductive TA does not equate to analysis in a theoretical vacuum)?	The theoretical underpinnings of the study clearly demonstrated and aligned with reflexive thematic analysis.
Do the researchers strive to 'own their perspectives' (even if only very briefly), their personal and social standpoint and positioning? (This is especially important when the researchers are engaged in social justice-oriented research and when representing the 'voices' of marginal and vulnerable groups, and groups to which the researcher does not belong.)	The researcher is reflexive about the influence about the influence of personal and professional background on the entire research process
Are the analytic procedures used clearly outlined, and described in terms of what the authors actually did, rather than generic procedures	Yes
Is there evidence of conceptual and procedural confusion? For example, reflexive TA (Braun & Clarke, 2006) is the claimed approach but different procedures are outlined such as the use of a codebook or coding frame, multiple independent coders and consensus coding, inter-rater reliability measures, and/or themes are conceptualised as analytic inputs rather than outputs and therefore the analysis progresses from theme identification to coding (rather than coding to theme development)	No
Do the authors demonstrate full and coherent understanding of their claimed approach to TA?	Yes
Is it clear what and where the themes are in the report? Would the manuscript benefit from some kind of overview of the analysis: listing of themes, narrative overview, table of themes, thematic map	Yes. There is thematic mapping of themes.
Are reported themes topic summaries, rather than 'fully realised themes' – patterns of shared meaning underpinned by a central organising concept? --- • Have the data collection questions been used as themes? ---	No --- No ---

• If so, are topic summaries appropriate to the purpose of the research? --- • If the authors are using reflexive TA, is this modification in the conceptualisation of themes explained and justified? --- • Would the manuscript benefit from further analysis being undertaken, with the reporting of fully realised themes? --- • Or, if the authors are claiming to use reflexive TA, would the manuscript benefit from claiming to use a different type of TA (e.g. coding reliability or codebook)?	Not applicable --- - Yes. --- No. Fully realised themes are reported --- The use of a different type of thematic analysis would be inappropriate.
Is a non-thematic contextualising information presented as a theme? (e.g. the first theme is a topic summary providing contextualising information, but the rest of the themes reported are fully realised themes). If so, would the manuscript benefit from this being presented as non-thematic contextualising information?	No. All the themes are fully realised themes and not topic summaries.
In applied research, do the reported themes have the potential to give rise to actionable outcomes?	Yes
Are there conceptual clashes and confusion in the paper? (e.g. claiming a social constructionist approach while also expressing concern for positivist notions of coding reliability, or claiming a constructionist approach while treating participants' language as a transparent reflection of their experiences and behaviours)	No
Is there evidence of weak or unconvincing analysis such as: • Too many or two few themes? --- • Too many theme levels? --- • Confusion between codes and themes? --- • Mismatch between data extracts and analytic claims? --- • Too few or too many data extracts? --- • Overlap between themes?	No --- No --- No --- No --- No --- No
Do authors make problematic statements about the lack of generalisability of their	No

results, and or implicitly conceptualise generalisability as statistical probabilistic generalisability (see Smith, 2017)	