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PERCEPTIONS OF PHYSIOTHERAPISTS REGARDING THEIR ROLE IN THE MANAGEMENT OF PATIENTS WITH MENTAL HEALTH DISORDERS

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A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Masters in Physiotherapy

Johannesburg, 2018

DECLARATION

I, Sandy Lord, declare that the work contained in this research report is my own work. This research report is being submitted for the degree of Master of Science in Physiotherapy, at the University of the Witwatersrand, Johannesburg, South Africa. This work has not been submitted for any other degree or examination in this or any other university.

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20/9/18

Date

ABSTRACT

Introduction: Physiotherapy in mental health is not well established in South Africa. Both at undergraduate and postgraduate training levels, the role of physiotherapy in the management of mental health disorders is not given much consideration. However, physiotherapists can play a key role in managing patients with mental health disorders. The role of physiotherapy in the management of patients with mental health disorders is still unclear in South Africa.

Aim: To determine the perceived role of physiotherapists in the management of patients with mental health disorders.

Methodology: Physiotherapists working in mental health facilities were invited to participate in this qualitative study. One-on one, semi-structured interviews were conducted in order to explore the participants' perceptions of their role in the management of patients with mental health disorders and to identify barriers and facilitators to their management. Inductive and deductive analysis was used to analyse the data.

Results: Seven physiotherapists were interviewed, of which only one worked in a public facility. Analysis yielded two main themes – lack of consensus regarding the role of physiotherapy in mental health and barriers and facilitators to management

Conclusion: Physiotherapists in this study were uncertain about their role in the management of patients with mental health disorders largely due to a lack of knowledge of the role of physiotherapy in mental health, both at an undergraduate and postgraduate level. Most physiotherapists had less than five years' experience working with patients with mental health disorders. The perceived barriers were largely due to an unconducive work environment and lack of knowledge and the perceived facilitators being a favourable work environment as well as the attributes of the physiotherapist.

Keywords: Physiotherapy, Perceptions, Mental Health Disorders, Facilitators, Barriers

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DEFINITIONS OF TERMS

Mental Health	"A state of wellbeing in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is and is able to make a contribution to her or his community" WHO (2016)
Mental Health Disorder	"A wide range of disorders that are characterised by a combination of abnormal thoughts, perceptions, emotions, behaviour and relationships with others. Includes depression, bipolar affective disorder, schizophrenia and other psychosis, dementia, intellectual disabilities and developmental disorders including autism" (WHO, 2017b)

LIST OF ABBREVIATIONS

BBAT	- Basic Body Awareness Therapy
CBT	- Cognitive Behavioural Therapy
HPCSA	- Health Professions Council of South Africa
IOPTMH	- International Organisation of Physical Therapists Working in Mental Health
MBSR	- Mindfulness Based Stress Reduction
MBCT	- Mindfulness Based Cognitive Therapy
MDT	- Multidisciplinary Team
MHD	- Mental Health Disorder
MNS	- Mental, Neurological and Substance abuse disorder
NCD	- Non-communicable Disease
QoL	- Quality of Life
SASH	- South African Stress and Health Survey
SASP	- South African Society of Physiotherapy
WCPT	- World Confederation of Physical Therapists
WHO	- World Health Organisation

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

Physiotherapists are known for the treatment and rehabilitation of physical injuries but their contribution to the care of people with mental health disorders (MHD) is not well understood (Pope, 2009). Both the International Organisation of Physical Therapists in Mental Health (IOPTMH) and the World Confederation of Physical Therapists (WCPT) have indicated that physiotherapists have a big role to play in improving the wellbeing of individuals and communities through health promotion, prevention of diseases and treatment of injuries (WCPT, 2016, Probst, 2012).

Mental health is defined as a "state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (WHO, 2016). Mental health disorders (MHD) present in a variety of ways but generally present as a combination of abnormal thoughts, emotions and behaviours (WHO, 2017b). Mental health disorders include a variety of conditions and can be classified as mood disorders (bipolar and depression), schizophrenia, dementia and intellectual disorders (WHO, 2017b). Mental health disorders have been associated with increased disability in work, family and social environments (WHO, 2016, APA, 2011, Mokwena, 2014). As such, there is a need to understand the role of physiotherapy in the management of patients with MHD.

Mental health disorders contribute to the global burden of disease. Thirteen percent of the total global burden of disease consists of mental, neurological and substance abuse disorders (WHO, 2017a). In South Africa, mental, neurological and substance abuse disorders (MNS) are the third highest contributor to overall burden of disease (Herman et al., 2009). Depression and anxiety are the two most commonly reported mental health illnesses globally (WHO, 2017a). It is estimated that 300 million people worldwide battle with depression, which affects more women than men and accounts for almost five percent of the total global burden of disease (Goesling et al., 2013, Steel et

al., 2014). The South African Stress and Health Survey (SASH) reported that almost a fifth of adults surveyed had experienced a MHD (mood and anxiety) (Herman et al., 2009). With the increased prevalence of MHD there is a need to understand how physiotherapy can play a role in patient management.

According to World Health Organisation (WHO), health is defined as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1946). This definition shows the strong link between mental and physical aspects of health. Patients with MHD often complain of pain and poor physical health. Literature indicates that patients with severe MHD have higher rates of cancers, respiratory disorders, cardiovascular disease, obesity and diabetes (Hert et al., 2011, Hodgson et al., 2011, Kauer et al., 2013). In addition, the increased mortality and morbidity rates in patients with MHD is mainly due to physical illness, individual lifestyle choices (decreased physical activity, smoking and alcohol use) and the side effects of medication (Hert et al., 2011, Kauer et al., 2013, Lee et al., 2017).

There is evidence indicating that pain and depression often co-exist and their bidirectional relationship causes a greater burden to the individual and society than each condition (Goesling et al., 2013, McWilliams et al., 2003, Gureje et al., 2008). More than half of patients with MHD have pain (Goesling et al., 2013). Gureje et al. (2008) have suggested that patients with depression often report pain at multiple sites in their body and that patients with chronic pain and co-existing psychiatric disorders have poorer treatment outcomes and increased disability. Thus, there is a need for prevention and management strategies for mental health that include physical activity and behaviour change interventions.

Patients with physical and MHD require a multidisciplinary approach. Psychotherapy and medication are often the first line of treatment with psychiatrists, psychologists, occupational therapists, and mental health nurses forming the multi-disciplinary team (APA, 2011, Kauer et al., 2013). It is surprising that physiotherapy is not included in the interprofessional team because some of the symptoms experienced by people with MHD can be managed by physiotherapy (Gbiri et al., 2011). Physiotherapists are capable

of providing treatment modalities for the management of chronic disease and other physical ailments related to MHD (Kauer et al., 2013, Gbiri et al., 2011). Thus there is a need to understand the role of physiotherapy in the management of patients with MHD.

Physiotherapists help improve wellbeing and quality of life by looking at physical, psychological, emotional and social factors influencing health (SASP, 2017, WCPT, 2016). The role of the physiotherapist is to help decrease pain and improve functional ability by using a variety of modalities to assist recovery (SASP, 2017, WCPT, 2016). Physiotherapists work in a variety of settings, across all ages and stages of life and provide assessment, treatment and prevention that help maximise a person's movement and functional ability (WCPT, 2016).

Physiotherapy in mental health is a specialised field within the physiotherapy profession (Probst, 2017). According to Probst (2017), mental health physiotherapy must occur across all ages and in all settings from primary health care to in- and outpatient settings. The role of the physiotherapist in mental health is to provide health promotion, preventative care, treatment and rehabilitation of individuals with MHD. Physiotherapy in mental health aims to create a therapeutic relationship in which the patient can be empowered by promoting movement, physical activity and exercise and bringing together physical and mental aspects of health and wellbeing using a biopsychosocial approach (Probst, 2017, Skelly, 2003). According to Pope (2009), physiotherapists are able to provide non-pharmacological pain management, exercise prescription, motivation and self-management programmes, balance, mobility and falls management in older patients, as well as advice and interventions to help with body awareness, and lifestyle and weight management programmes. Physiotherapists have a clear role to play in the management of physical conditions and can bridge the gap between physical and mental health (Gbiri et al., 2011, APA, 2011, Pope, 2009).

1.2 PROBLEM STATEMENT

The role of physiotherapists in mental health care is not fully understood. In South Africa, there is currently no data regarding the role of physiotherapy in managing patients with MHD even though it is one of the highest contributors to overall burden of disease. Locally, physiotherapists are working in mental health facilities, but lack guidelines on the management of these patients. Barriers and facilitators to physiotherapy in MHD have not been studied, nor has the physiotherapist's perceptions regarding their role in the management of patients with MHD been investigated.

1.3 RESEARCH QUESTION

What is the perceived role of physiotherapists in the management of patients with mental health disorders?

1.4 AIM

To determine the perceived role of physiotherapists in the management of patients with mental health disorders in South Africa.

1.5 OBJECTIVES

The objectives of this study are to:

1.5.1 Establish the profile of the physiotherapists managing patients with mental health disorders.

1.5.2 Explore the perceptions of physiotherapists regarding their role in the management of patients with mental health disorders.

1.5.3 To determine the physiotherapists' perceived barriers and facilitators in the management of patients with mental health disorders.

1.6 SIGNIFICANCE

The insight gained from this study will help describe the role of physiotherapy in mental health. There is a need for prevention and management strategies for mental health that include physical activity and behaviour change interventions. In addition, data generated from this study can contribute to clinical practice of the management of patients with MHD to help recognise and prevent secondary conditions and co-morbidities. It will also contribute to the body of knowledge on the physiotherapeutic management of MHD in South Africa, as there is currently no literature regarding their role of physiotherapy in mental health in a South African context. Lastly, data from this research can be used as a basis for future research on the role of physiotherapy in mental health.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

The role of physiotherapy in mental health has been studied internationally over the past few years but little exists in the literature regarding the role of physiotherapists in mental health and psychiatry in South Africa. This literature review will cover the current status of mental health in South Africa, management of mental health disorders and the role of physiotherapy in MHD.

Clinical Key, Pedro, Pubmed, ResearchGate and EBSCO were searched from July 2015 to February 2018, using the following terms: physiotherapy, physical therapy, mental health, mental health disorders, mental health illness and psychiatric illness, perceptions, physical activity, quality of life.

2.2 MENTAL HEALTH

According to World Health Organisation (WHO), health is defined as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1946). This definition shows the strong link between the mental and physical aspects of health. Mental health is a state of wellbeing in which a person is able to enjoy life, has the capacity to deal with challenges and stresses of life, work productively and contribute to their community (WHO, 2016, Manwell et al., 2015). Mental health disorders are a wide range of disorders characterised by a variety of conditions affecting thoughts, emotions, behaviours and relationships and can be classified as mood disorders (depression and bipolar), schizophrenia, dementia and intellectual disorders (WHO, 2016). Depression and anxiety are considered common MHD and symptoms related to MHD include somatic symptoms, fatigue, irritability, sleep disturbances, concentration problems, memory loss (Borges et al., 2016).

2.3 PREVALENCE OF MENTAL HEALTH DISORDERS

Mental health disorders are increasing globally and it is estimated that by 2020, depression will be the second leading cause of disability worldwide (Huang et al., 2016). This is evident by an increase of approximately 20% in

prevalence of depression and anxiety from 2005 to 2015 (WHO, 2017a, Vos et al., 2016). The WHO states that approximately 300 million people worldwide have a MHD, with depression and anxiety being the most commonly reported disorders (WHO, 2016). Major Depressive Disorder (MDD) is the fifth highest leading cause of years lost to disability (YLD) globally, contributing 4.2% of total YLD in 2016 (Hay, 2017). Mental, neurological and substance abuse disorders (MNS) are often cited together in the prevalent data. This may be a result of the definition of MHD, which includes illnesses such as substance abuse as well as neurological illnesses such as dementia (WHO, 2016). MNS account for approximately 14% of the global burden of disease and were the largest group of disorders which contributed to non-fatal burden of disease (Hay, 2017, Huang et al., 2016). The increase in the prevalence of MHD is a public health crisis needing holistic intervention.

There is a lack of empirical evidence relating to the prevalence of MHD in African countries. Most of the available data on MHD e.g. MNS prevalence rates, comes from high income countries. Most of the research conducted on prevalence rates has been conducted on small populations and mostly in urban or hospital settings and does not include rural settings (Huang et al., 2016). As a result of high levels of poverty, food insecurity, increased experience of violence, increased physical health burden and inadequate mental health systems, the burden of MNS in Africa might actually be higher than estimated (Mokwena, 2014, Huang et al., 2016). Major depressive disorder and anxiety are ranked as the sixth and fourth highest contributors to years lost to disability (YLD) respectively (Hay, 2017). Global estimates reported the prevalence rates of depression for the African region at approximately 29.19 million and prevalence rates for anxiety are 25.91 million (WHO, 2017a, Vos et al., 2016). According to Huang et al. (2016), the prevalence rates of post-traumatic stress disorder (PTSD), depression and anxiety in Africa, might be higher than that in high income countries.

In South Africa, neuropsychiatric disorders are the third highest contributor to burden of disease, preceded only by HIV and other infectious diseases (Herman et al., 2009, Hay, 2017). In 2016, MDD and anxiety disorders were among the top ten non-fatal illnesses which contributed to YLD (Hay, 2017).

The prevalence of depression in South Africa is approximately 4,6% of the population, while anxiety disorders are prevalent in approximately 3,4% of the population (WHO, 2017a, Vos et al., 2016). This appears to be in line with other African countries which report similar rates of depression and anxiety (WHO, 2017a). In South Africa, women have been reported to be more vulnerable to rape and other intimate partner violence, which may explain why more women than men suffer from depression and anxiety (Mokwena, 2014).

2.4 MENTAL HEALTH DISORDERS AND GENDER

Mental health disorders can affect anyone and appear to affect men and women differently. Globally, more men suffer from schizophrenia, attention deficit disorder and substance abuse disorders than women, while more women suffer from depression and anxiety than men (Steel et al., 2014, Schwartz et al., 2011). The reasons for these differences may include: hormonal influence, sex differences in neuro-circuitry involved in mood and anxiety, psychosocial stresses, gender roles and bias, socioeconomic status, difference in help seeking behaviour the importance of social support for women (Borges et al., 2016, Schwartz et al., 2011). Borges et al. (2016) stated that being female was associated with increased association of common MHD.

2.5 MENTAL HEALTH AND PHYSICAL HEALTH

Mental health is a key factor in overall health. It has an important role in individual, family and community life as poor mental health and well-being leads to poor quality of life, increased disability and decreased productivity (APA, 2011). Mental health disorders can impact a person's ability to work and become a productive member of the family and in the community. In addition, there is evidence that patients with severe MHD, when compared to the general population have higher rates of cancers, respiratory disorders, cardiovascular disease, obesity and diabetes (Hert et al., 2011, Hodgson et al., 2011, Kauer et al., 2013, Lee et al., 2017). These higher rates of co-morbidities are mainly due to poor lifestyle choices (sedentary lifestyles, smoking and alcohol use) as well as the side effects of medication (Lee et al., 2017, Hert et al., 2011, Kauer et al., 2013). MHD combined with poorer

physical health means that people with MHD have a poorer quality of life (Probst, 2017).

Quality of life (QoL) is a multidimensional concept which includes a subjective self-evaluation of all aspects of life (Chen et al., 2006). Domains of QoL include: physical health, social relationships, psychological wellbeing, role function and environmental context (Chen et al., 2006). A cross sectional study by Borges et al. (2016) investigated the impact of common mental health disorders on QoL in Brazil. The authors used the World Health Organisation, Quality of Life assessment - brief version (WHOQOL-BREF) which investigates four main domains of QoL: physical health (pain, discomfort, fatigue, sleeping), psychological factors (positive and negative feelings, learning, memory, concentration, self-esteem), environmental factors (physical safety, home environment, finances, available health care, participation in leisure activities) and social relationships. The study found that QoL scores in patients with common MHD were lower than those of the general population without MHD. According to the results it was found that physical health was affected by the presence of a MHD and the use of psychotropic medications. Patients with MHD often take psychotropic medication to manage their conditions, and may be on more than one medication at any given time. Increased number of medications and amounts of tablets that need to be taken may affect patient adherence to taking these tablets. Patients may also be at risk for drug related side effects and interactions. This may in turn further lower QoL (Borges et al., 2016)

The impact of MHD and physical illness on QoL as adults was investigated by Chen et al. (2006). A community based sample of mothers and children (in New York City) were used. Mothers and children, who were interviewed in 1975, were re-interviewed 17 years later. The study found that adolescents with physical illness but not MHD reported poorer physical health 17 years later. Those that had a MHD but not physical illness reported that they had more problematic social relationships and poor psychological well-being. When adolescents had concurrent physical and MHD it was found that they had poorer QoL with all domains affected.

Depression has been linked to disability, functional limitations and mortality (Prina et al., 2015). The co-occurrence of MHD and somatic symptoms is associated with increased functional disability, higher medical care utilisation and increased health costs (Bekhuis et al., 2015, Prina et al., 2015). The presence of chronic disease like cancer and NCDs increases the risk for disability which can present as impairments, functional limitations and participation restriction, further decreasing QoL. Chen et al. (2006) stated that both mental and physical illness decrease QoL independently, but the results are additive and as a result those with comorbid physical and mental health problems will report worse QoL. This highlights the need for effective treatment of mental health disorders.

2.6 MENTAL HEALTH AND PAIN

There is evidence that indicates that pain and depression often coexist (Goesling et al., 2013). Patients with undiagnosed MHD often initially present at their general practitioners/primary health care facility with medically unexplained symptoms and more than half of them will complain of physical pain symptoms (Haftgoli et al., 2010, Goesling et al., 2013). Depression and anxiety are strongly related to somatic symptoms, possibly as a result of shared aetiological factors e.g. environmental, psychological and biological factors (Bekhuis et al., 2015). Somatic symptoms may predict the onset of depression and anxiety and the presence of somatic pain doubles the risk of having depression and anxiety (Bekhuis et al., 2015).

Although the exact relationship between pain and depression is not well understood (Goesling et al., 2013), it is thought to be a bidirectional relationship which causes a greater burden to an individual (Goesling et al., 2013). Gureje et al. (2008) have suggested that patients with depression often report pain at multiple sites in their body and conducted a survey to determine if patients with other MHD, including anxiety, post-traumatic stress disorder (PTSD), mood and substance use disorders also reported the same results. This study was conducted in seventeen countries and found that patients with MHD often reported pain at more than one part of their body. The study reported that in South Africa, of the 4315 participants in the sample, almost 23% of the participants experienced pain at multiple sites in their body. As a

result patients with chronic pain and comorbid MHD may have worse treatment outcomes due to the higher burden of disease and poorer QoL (Goesling et al., 2013, Gureje et al., 2008, Bekhuis et al., 2015).

The relationship between pain and depression is complex (Goesling et al., 2013). A study by Goesling et al. (2013) looked at the link between pain and depression. According to the authors, there appears to be more evidence that pain causes depression but it is not as simple as that as pain is complex and multifactorial (Goesling et al., 2013). The study describes how pain and depression are controlled by common neurotransmitters e.g. serotonin, noradrenaline and GABA and that pain and depression respond well to similar treatments. In addition, a study by Gerrits et al. (2012), looked at how pain affected the course of depression and anxiety disorders. This study was part of an on-going 8 year-long cohort study and measures included pain assessment, course of MHD (depression and anxiety symptoms) initially and at two years later. The results added to the overall findings by the previous authors that pain and comorbid psychiatric conditions are difficult to treat, often have poorer outcomes and lead to increased disability for the individual, family and community (Gerrits et al., 2012, Goesling et al., 2013).

The burden of disease amongst patients with MHD is reflected as disability rather than mortality (Walker et al., 2015). However, mortality rates remain high (Vancampfort et al., 2016). According to a systematic review and meta-analysis done by Walker et al. (2015), the mortality rate is twice as high in patients with MHD than in the general population. The high rates of mortality amongst patients with MHD is more a result of the chronic illness e.g. heart attacks or suicide (Walker et al., 2015). Other reasons for higher mortality rates include behavioural and lifestyle factors, access to care, and social factors such as poverty. All these factors highlight the need for prevention programmes and better access to available treatment.

2.7 MANAGEMENT OF MENTAL HEALTH DISORDERS

Management of MHD needs to be holistic to ensure all the components of health are addressed. Many studies have mentioned the role of psychiatrists, psychologists, occupational therapists, social workers and mental health

nurses as part of the multidisciplinary team involved in the care of patients with MHD (Kauer et al., 2013). However there is limited evidence indicating the role of physiotherapy in the management of MHD. Although physiotherapists have a role to play in the management of MHD, their role is often not understood by the patients and other healthcare professionals (Connaughton and Gibson, 2016a).

Mental health management is often done in silos. A distinction is made between multi-disciplinary management and interdisciplinary management of patients with MHD. Multidisciplinary management occurs when one patient is seen by many different healthcare professionals from different disciplines. These professionals treat the patient individually according to their discipline but there is a lack of integration and co-ordination of care. Interdisciplinary teams have evolved from multidisciplinary management. These teams provide co-ordinated, integrated treatment strategies and often incorporate medical, psychological, functional and physical treatment methods (Bosy et al., 2010). Interdisciplinary rehabilitation programmes have been studied extensively in chronic pain management programmes and focus on biopsychosocial management which are more holistic than just a biomedical model (Stanos, 2012). This biopsychosocial model is especially important in patients with mental health disorders as they often have multifaceted problems which cannot be treated in isolation.

2.8 ROLE OF PHYSIOTHERAPY IN MENTAL HEALTH

Psychotherapy and medication are normally the first line of treatment for mental health disorders (Stanton and Happell, 2013). The link between physical health and mental health requires that physiotherapists play a role in the management of patients with MHD (Pope, 2009, Kauer et al., 2013). There is a need for a greater focus on patients' physical health by mental health service providers because of their higher rates of mortality and morbidity due to physical illness, poor lifestyle choices and side effects of medication (Pearsall et al., 2014, Lee et al., 2017, Hert et al., 2011). Pope (2009) states that physiotherapists are seen as experts in physical health and are able to provide non – pharmacological pain management, exercise prescription for wellbeing, falls management in older people and interventions to address

impaired body awareness. Mental health physiotherapy is person-centred and helps patients of all ages and severity of mental health disorders (Probst, 2017).

Physiotherapy management in patients with MHD is varied depending on the patient's needs, but includes the management of chronic pain (Peveler et al., 2006, Gureje et al., 2008, Goesling et al., 2013, Gerrits et al., 2012), physical activity and exercise (Richardson et al., 2005, Perraton et al., 2010, Stanton and Happell, 2013), complementary and alternative strategies e.g. yoga, Basic Body Awareness Therapy (BBAT) (Probst, 2012, Breitve et al., 2010, Gyllensten et al., 2009, Johnsen and Råheim, 2010, Re et al., 2014, Ross and Thomas, 2010). Physiotherapy can play a major role in the management of patients with MHD.

2.8.1 Physiotherapeutic Management of Chronic Pain

Physiotherapeutic management of patients with chronic pain includes, among other things, myofascial release, active and passive mobilisation, electrotherapy and taping (Kauer et al., 2013). There is now an increasing amount of research being done into the value of therapeutic neuroscience education and explaining pain to the patients (Louw et al., 2016b). According to Moseley (2003), "Pain is a multiple system output activated by the brain based on perceived threat" and as such explaining how pain works can be beneficial to patients with chronic pain (Moseley, 2003, Louw et al., 2011). Neuroscience education is described as an intervention that aims to decrease pain by explaining the biology of the pain experience to the patient. It differs from traditional education used which is based on a biomedical model, making use of anatomical and biomechanical models connecting injury to pain (Louw et al., 2016b, Louw et al., 2016a, Louw et al., 2011).

The effects of neuroscience education have been reviewed. A systematic review by Louw et al. (2011) looked into the effects of neuroscience education on pain, disability and anxiety and stress in chronic musculoskeletal pain. This systematic review was updated in 2016 and included better quality studies than the initial systematic review (only included randomised controlled trials (RCT) of high quality). In this review, 8 of the 13 RCT studies included

compared pain neuroscience education to other treatment modalities including: mobilisation and manipulation, massage, neural mobilisation, movement exercises, stabilisation exercises, dry needling. The authors concluded that there is strong evidence to support the use of pain neuroscience education in musculoskeletal conditions. Combining pain neuroscience education with manual therapies appeared to be more effective than just using pain neuroscience education alone (Louw et al., 2016b). Neuroscience education is an intervention that physiotherapists can employ in the management of patients with MHD.

Pain management programmes have also been shown to be effective in the management of chronic pain patients (Scascighini et al., 2008). These programmes can include cognitive behavioural therapy (CBT), education and physical activity. These programmes have been shown to have a positive outcome in chronic pain. In addition, for better outcomes, a multidisciplinary management strategy in the management of patients with chronic pain was emphasised by Scascighini et al. (2008). The authors concluded that multidisciplinary pain management programmes incorporating physicians/ doctors, psychologists and physiotherapists and which included individual exercises, relaxation therapy, patient education sessions and cognitive behavioural therapy were more effective. The methodological quality of some of these studies included in this review were poor – sample sizes were small and blinding may be difficult to achieve in a multidisciplinary setting (Scascighini et al., 2008). There are however no studies that indicate whether these modalities are effective in a mental health setting. Considering that pain neuroscience education has been shown to be effective in the management of patients with chronic pain, it stands to reason that it would be effective in the patients presenting with both mental health disorders and chronic pain.

2.8.2 **Physical Activity and Exercise**

Another aspect of treatment used by physiotherapists in the management of MHD is physical activity and exercise. "Physical activity is defined as any activity or bodily movement produced by skeletal muscles that results in energy expenditure above resting (basal) levels" (Stults-Kolehmainen and Sinha, 2014). Exercise is defined as "physical activity that is planned,

structured, and repetitive and has as a final or intermediate objective, the improvement or maintenance of physical fitness" (Stults-Kolehmainen and Sinha, 2014). The definitions of physical activity and exercise are similar but physical activity includes any movement or activity including sport and leisure activities.

Physical activity is viewed as a public health priority because regular physical activity has been found to be beneficial for overall wellbeing (Aweto et al., 2013, Pearsall et al., 2014, Hodgson et al., 2011). Physical activity for patients with MHD is especially important as it improves physical health which in turn impacts on social and psychological factors as well (Hodgson et al., 2011). Perraton et al. (2010) state that people with MHD are more likely to be less physically active and as such are at a greater risk of chronic health conditions which may lead to poorer quality of life (Stanton and Happell, 2013, Stubbs et al., 2014).

There are multiple benefits to exercise. The benefits of regular exercise include improved sleep, stress management, increased energy, weight loss and improved cardiovascular fitness (Kauer et al., 2013). Exercise also improves mental health, decreases cardiovascular disease and decreases the risk of diabetes, stroke and some cancers (Hodgson et al., 2011, Stanton and Happell, 2013, Perraton et al., 2010). In patients with MHD, who are at an even greater risk of obesity and physical illness, exercise may also be beneficial and may help with the secondary symptoms such as weight gain from antipsychotic medications (Kauer et al., 2013, Stubbs et al., 2014)

The literature is unclear about what the best form of physical activity and exercise is the most beneficial for patients with MHD. General guidelines of exercise prescription are based on healthy populations, without MHD (Stanton and Happell, 2013). There are varied opinions about the best type of exercise for patients with MHD and other psychiatric illnesses. There is some evidence that shows that resistance and aerobic exercise may be effective in managing depression (Pearsall et al., 2014). A systematic review by Vancampfort et al. (2018) determined that higher intensity aerobic exercise might reduce depressive symptoms and improve psychological QoL. However, a systematic

review and meta-analysis by Pearsall et al. (2014) on exercise therapy in adults with serious MHD concluded that there was no noticeable change in symptoms of mental health and body weight (Pearsall et al., 2014). The systematic review, though only included studies which focused on adults with schizophrenia and bipolar disorders. Pearsall et al. (2014) concluded in their systematic review that exercise programmes may help increase exercise activity but did not have a direct effect on the MHD. This may be as a result of the heterogeneity of studies, small sample sizes, as well as the specific MHD.

Most studies of physical activity in patients with MHD focus on depression and physical activity (Stanton and Happell, 2013, Perraton et al., 2010, Stubbs et al., 2014). There is often a lot of differing opinion on what the best type of exercise is (aerobic, resistance or flexibility) as well as dosage, intensity and duration (Stanton and Happell, 2013). This may be as a result of different methodologies used. Often the type of training, level of depression (whether moderate or major depression), intensity and duration used varied a lot between studies and as such it is difficult to determine exact guidelines as well as effect on MHD (Perraton et al., 2010, Stanton and Happell, 2013). However, a systematic review done by Perraton et al. (2010) of exercise parameters in depression showed that most studies indicated that patients need to exercise for thirty minutes a day, three times a week for a minimum of eight weeks to have an effect on clinical depression.

A distinction is also made by Richardson et al. (2005) between structured exercise programmes and lifestyle exercise programmes. Structured exercise programmes include exercise that occurs at a set time, or venue, either as an individual or group session while lifestyle exercise programmes include physical activity programmes which can be incorporated into daily life. The benefits of supervised structured exercise programmes include patient safety and their level of participation is more easily monitored but it can be costly due to staffing, time and space constraints. Patients with severe MHD often prefer exercises which can be incorporated into their lifestyle, as the exercises can be done in their own time and is cost effective. The most preferred exercise type is walking. The disadvantage of this is that it is difficult to monitor even

with pedometers and logbooks, as it relies completely on patients unbiased feedback (Richardson et al., 2005).

2.8.3 Complementary and Alternative Therapies

Mind-body therapies are another intervention used by physiotherapists in the management of patients with MHD (Gyllensten et al., 2009). The mind-body awareness therapies reported on in the literature include: BBAT and Psychomotor Therapy (Gyllensten et al., 2009, Breitve et al., 2010) These two treatments are similar and while they are referred to separately, they may be considered the same. Basic Body Awareness Therapy and Psychomotor therapies are physiotherapy interventions which make use of body awareness to promote health. They combine the philosophies of tai chi and meditation with western schools of movement. Components of mind-body therapies include general movement, breathing, massage and talking. They are often considered more of a psychological intervention (Johnsen and Råheim, 2010). These treatments are more commonly used in the management of conditions like schizophrenia, depression and anxiety, eating disorders, unexplained medical symptoms as well as complaints such as fibromyalgia (Johnsen and Råheim, 2010). In Scandinavian countries, BBAT is the most important intervention used in the management of patients with psychiatric and psychosomatic symptoms (Probst, 2012, Johnsen and Råheim, 2010).

Research into BBAT and psychomotor therapy done by Gyllensten et al. (2009), Breitve et al. (2010) and Johnsen and Råheim (2010), all determined that these therapies had good results and that patient experiences were good, however these therapies were time consuming. A randomised controlled, double blinded trial by Gyllensten et al. (2009), evaluated the long term effectiveness of BBAT. The study concluded that the addition of twelve BBAT sessions to usual treatment, which included psychotherapy and medication, was beneficial to patients as it decreased the burden of disability and patients made less use of psychiatric services. The results were maintained at 6 months and 12 months follow up. On the contrary, Breitve et al. (2010) used a non-randomised, wait listed control trial to determine the benefits of psychomotor physiotherapy. After 12 months in therapy patients in the treatment group continued to improve on all measures taken at baseline and 6

months. Symptoms of anxiety and depression, insomnia and fatigue had improved. Breitve et al. (2010) did concede that randomised controlled trials needed to be done.

Mind-body interventions are commonly used to help patients cope with depression (Cramer et al., 2013). Yoga has become one of the most popular mind–body interventions as it incorporates movement, breathing and meditation (Cramer et al., 2013). Yoga has been theorised to work by increasing dopamine and serotonin levels, affecting the Hypothalamic – Pituitary-Adrenal axis and as a sensory regulating tool. In adolescents this is one of the most commonly used interventions (Re et al., 2014, Cramer et al., 2013). A systematic review by Cramer et al. (2013) investigating the use of yoga for depression, found that there was moderate evidence for short term improvements in the severity of depression, comparable to pharmacotherapy and group therapy (Cramer et al., 2013). But of the 12 studies included, nine had a high risk of bias, therefore we are unable to say if yoga may in fact be beneficial in managing patients with depression.

Physiotherapists also use psychological support, reassurance and education to help decrease stress and promote behavioural change (Connaughton and Gibson, 2016a). The goal of psychological strategies such as cognitive behavioural therapy (CBT) in the management of patients with MHD is to change unhealthy behaviours and promote active lifestyles. Modalities such as pacing, relaxation, graded exercise therapy that are goal directed help change behaviours (Probst, 2017). Complementary and alternative strategies based on eastern traditions (tai chi, meditation) are also used to address both body and mind disorders and Gyllensten et al. (2009) state these strategies are often used by physiotherapists in mental health physiotherapy, especially in the Scandinavian and European countries.

Mindfulness is another psychological strategy which may be used in MHD. It attempts to improve a person's ability to observe their thoughts and emotions in a more positive and accepting way (Banks et al., 2015). Mindfulness has been studied extensively on various populations including healthy populations, chronic pain populations and psychiatric populations and has been shown to

decrease stress, anxiety and depression (Banks et al., 2015). According to the literature, there are two types of Mindfulness therapies – Mindfulness Based Stressed Reduction (MBSR) and Mindfulness Based Cognitive Therapy (MBCT). MBCT was developed by CBT and is based on the principles of MBSR and both methods can be adapted to suit the specific context and may be used in individual therapy, or groups (Janssen et al., 2018). Janssen et al. (2018) states that MBSR was originally developed to help patients with chronic pain. The benefits of MBSR include improved stress management, improved concentration and physical resilience as well reduced symptoms of anxiety and depression (Janssen et al., 2018)). MBSR includes a variety of exercises, but the main components include: body scans (paying attention to what the body is feeling), sitting meditation, simple movement exercises e.g. walking or yoga, as well informal meditation (Janssen et al., 2018). MBCT differs from MBSR in that it included psycho-education about the nature of thoughts as mental events rather than facts. The link between thoughts and moods is made explicit in MBCT (Janssen et al., 2018). As such, mindfulness is an effective tool in the management of MHD.

In South Africa, little is known about the use of physiotherapy services in mental health facilities. Only one study could be found which may have some relevance to the South African context. A study by Gbiri et al. (2011), investigated the use of physiotherapy services at a Nigerian mental health facility. The study made use of a records review of patients admitted to the mental health facility from 2002 to 2006. It was found that only 14% of the inpatients received physiotherapy for management of mostly: low back pain, osteoarthritis, stroke and shoulder pain (Gbiri et al., 2011). The authors concluded that physiotherapists were an important part of the MDT but their services were underutilised (Gbiri et al., 2011).

2.9 THERAPEUTIC RELATIONSHIP

An important part of the management process of patients with MHD is the therapeutic relationship. Therapeutic relationship is the relationship between the patient and health care provider (Pinto et al., 2012). It is a collaborative process, which includes mutual agreement, trust and empathy (Pinto et al., 2012). In a qualitative systematic review and meta-synthesis, O'Keeffe et al.

(2016) investigated the patient-therapist interactions in musculoskeletal physiotherapy. The authors found that the therapeutic relationship was important in the management of patients with musculoskeletal conditions (O'Keeffe et al., 2016). Patients appreciated physiotherapists who had good listening and communication skills, were empathetic, were friendly and who had clinical expertise and training. While this study was done in patients with musculoskeletal pain, the principles are as important in patients with pain and MHD. Patients want to be "seen, heard and believed" and this interaction is vital to the quality of the patient-therapist interaction (O'Keeffe et al., 2016). Patients with MHD often require more time to be spent with them in a treatment session and a basic level of training in MHD is needed in order to effectively manage these patients (Connaughton and Gibson, 2016a).

2.10 PERCEPTIONS OF PHYSIOTHERAPISTS REGARDING THEIR ROLE IN MENTAL HEALTH

The role of physiotherapy in mental health is not well understood by both patients and healthcare professionals alike (Connaughton and Gibson, 2016a). Studies have been done to determine the perception of the physiotherapists' themselves, regarding their role in the management of patients with MHD as well as how patients and other healthcare professionals perceived the role of physiotherapy.

A study by Stubbs et al. (2014) found that physiotherapists believed they were "physical health experts" in the MDT and they play an important role in health promotion. This study made use of surveys sent out to members of the International Organisation of physical therapists working in mental health (IOPTMH). South Africa, however, is not a member of IOPTMH and did not participate in this study. The perceptions of the physiotherapists responding to the survey were that physiotherapists were important in treating patients with MHD (particularly schizophrenia) as they could prescribe individual exercise programmes, manage musculoskeletal and neurological conditions and improve mind-body awareness. Physiotherapists are the "bridge between mental and physical health" and play an important role by encouraging healthier lifestyles and increasing physical activity (Stubbs et al., 2014).

Studies done Lee et al. (2017), Connaughton and Gibson (2016b) and Vancampfort et al. (2018) looked at the perceived role of physiotherapists in MHD among physiotherapists, healthcare providers and patients. A qualitative study by Lee et al. (2017) sought to determine how healthcare professionals and patients with severe and persistent MHD determined the perceived role of physiotherapists in MHD. Focus groups and individual interviews were used to determine the responses of mental health care professionals and patients. Healthcare professionals believed that physiotherapists were not part of the MDT in the management of patients with MHD and physiotherapists did not have specialist knowledge about MHD and their management (Lee et al., 2017).

A systematic review by Vancampfort et al. (2018) showed that physiotherapy is still underutilised in the management of patients with MHD in Sub-Saharan Africa. The review screened the WHO action plans for the management of MHD which included the role of the physiotherapist. The authors found that only two (of 22) action plans for the management of MHD made reference to the importance of the role of the physiotherapist.

A study by Connaughton and Gibson (2016a) aimed to determine the attitudes of physiotherapists in Western Australia toward psychiatry and mental illness as well as how well their undergraduate training had prepared them to manage patients with MHD. Physiotherapy was not perceived as a primary profession in the Australian mental healthcare system and is not considered to play a significant role in the providing services to patients with MHD (Connaughton and Gibson, 2016a). According to their study results, physiotherapists who worked with patients with MHD, reported that they did not receive adequate training at an undergraduate level and were not very well prepared to manage patients with MHD (Connaughton and Gibson, 2016a).

The above studies indicate that there is a lack of awareness and knowledge regarding the role physiotherapists can play in mental health among healthcare providers, patients, policy makers and training institutions. This indicates that there is a need to advocate for the role of physiotherapists in MHD as well as advocating for the inclusion of MHD in undergraduate

curriculum to ensure that physiotherapists have the knowledge required and clinical skills to manage patients with MHD effectively (Connaughton and Gibson, 2016b, Lee et al., 2017, Vancampfort et al., 2018).

The undergraduate education physiotherapists received, often differed from country to country and often physiotherapists felt unprepared to manage these MHD (Probst, 2012, Connaughton and Gibson, 2016a). Patients that present to physiotherapy for somatic complaints may also have a comorbid MHD and as such physiotherapists need to be educated in mental health and psychiatry (Probst and Peuskens, 2010). Probst and Peuskens (2010) study on the attitude of Flemish physiotherapy students towards psychiatry found that educating physiotherapy students about MHD positively influenced their attitudes towards patients with MHD but further research was needed into how this education was delivered. They also stated that it is important that physiotherapy students are exposed to psychiatric conditions and given some knowledge and skills on how to manage these complex presentations as they will come across patients with MHD at some point in their career.

The need for undergraduate education in MHD was further established by Connaughton and Gibson (2016b). This cross sectional study also investigated the attitudes of entry level physiotherapists towards psychiatry in Australia and found that clinical experience may have a positive effect on the attitudes of students (especially female) towards psychiatry. They also argue that while education is important to improve attitudes towards psychiatry, clinical practice is another important aspect, as students then learn to practically apply the knowledge they have attained (Connaughton and Gibson 2016b). The above studies advocate for the inclusion of MHD in undergraduate curriculum as it improves students and clinicians attitudes towards MHD. This is especially important when we consider the increasing rate of MHD and how physiotherapists are increasingly going to come across MHD in their clinical practice.

In South Africa, Ntsiea et al. (2017), investigated the undergraduate curriculum to determine if it was aligned with medical conditions of patients within state facilities. This retrospective review used statistics of conditions seen by

physiotherapists in Gauteng. The most common conditions seen included fractures, soft tissue injuries, tuberculosis, pneumonia, stroke and cerebral palsy (Ntsiea et al., 2017). Stress was one of the least common conditions seen (Ntsiea et al., 2017). The authors concluded that the physiotherapy curriculum at Wits covered all medical conditions treated by physiotherapists, but where stress was the primary condition this was not specifically covered in the curriculum. It was stated that student physiotherapists were taught a biopsychosocial approach to patients and as such would be able to address all factors relating to the medical condition. Ntsiea et al. (2017) stated that the clinical programme covers all medical conditions seen by physiotherapists, however these statistics may only indicate the primary condition treated and do not indicate whether the patient presents with a co-morbid MHD or secondary condition. As the rates of MHD are on the rise, with depression set to be the second leading cause of disability, students and practitioners are likely to come across more patients with MHD (Huang et al., 2016). The lack of explicit training in MHD in the physiotherapy curriculum means that the positive attitude of the physiotherapist is reliant on the physiotherapists' personal experiences and beliefs, rather than the outcome of education (Connaughton and Gibson, 2016a). In order to foster positive attitudes towards psychiatry and ensure physiotherapists have the knowledge and skills to manage these patients, it may be beneficial to include MHD in the curriculum.

2.11 BARRIERS AND FACILITATORS TO MANAGEMENT OF MHD

Despite the prevalence of MHD, there are many barriers to treatment. This is due to: a lack of knowledge of MHD by patients and healthcare professionals, lack of perceived need for treatment, fear of stigmatisation, as well as lack of funding (healthcare system) for the management of mental health disorders (Suliman et al., 2010). Other reasons for not receiving treatment include personal finances, accessibility and availability and previous negative experiences (Hugo et al., 2003, Andrade et al., 2014). In a study by Hugo et al. (2003), based in South Africa, it was found that most people in the community did not understand what mental health disorders were and that effective treatment was available (Hugo et al., 2003). This delayed, and in some cases prevented people from obtaining the necessary intervention to help manage their illness.

A few studies have been done to investigate barriers and facilitators specific to physiotherapy management of patients with MHD. Most of these studies are surveys or qualitative studies. Literature indicates that barriers specific to physiotherapy include patients lack of motivation, side effects of medication, lack of understanding of the role of physiotherapy in mental health, cost and lack of transport (Lee et al., 2017, Soundy et al., 2014, Firth et al., 2016). Facilitators which are specific to physiotherapy management included provision of transport, lowered costs and education about the role of physiotherapists in mental health (Soundy et al., 2014, Lee et al., 2017).

As physiotherapists may be seen as the experts in physical health, their role in MHD includes physical activity and exercise. There are however several barriers and facilitators to exercise and physical activity. Barriers include side effects of medicine, poor physical health (patient may be at risk of injury or an adverse cardiac event and as such medical clearance for exercise may need to be sought), and lack of motivation by patients. A systematic review and meta-analysis by Firth et al. (2016) was conducted on facilitators and barriers to exercise, as patients with severe MHD often have low levels of physical activity (Firth et al., 2016). In the study by Firth et al. (2016), 91% of patients with severe MHD were motivated to participate in exercise to improve health and mood, lose weight, and decrease stress. The most prevalent barriers to participation included low mood, stress and lack of support. The authors concluded by saying that providing these patients with support may enable them to overcome their psychological barriers and maintain motivation to exercise (Firth et al., 2016). The limitations noted by the authors included that the studies were done in westernised countries and not in developing countries (like Africa or Asia) and there was a lot of ethnic diversity. The studies included in this systematic review were predominantly based on schizophrenia and bipolar and major depressive disorders made up less than 15 percent of the studies (Firth et al., 2016).

Facilitators in the management of patients with MHD, specifically exercise, included support of health care professional, and organised, structured programmes (Hodgson et al., 2011). In the study by Hodgson et al. (2011), semi structured interviews were used to determine the experiences of people

with severe mental illness who participated in a physical activity programme and the results indicated that when physical activity programmes was integrated into the mental health services, patients felt more supported and received more benefit (Hodgson et al., 2011). Similarly, Richardson et al. (2005) argued that physical activity should be incorporated into mental health care services as these patients have regular contact with their healthcare providers. These service providers can reinforce the value of physical exercise and staff have been trained to be understanding and supportive. They are also in a position to address any barriers to exercise in a supportive environment. As physiotherapists are seen as physical health experts, they are ideally situated to help patients with exercise prescription.

2.12 CONCLUSION

Physiotherapists are seen as the experts in physical health and can bridge the gap between mental and physical health (Pope, 2009, Probst, 2012, Stubbs et al., 2014). In a South African context little is known about physiotherapy in mental health. There are no studies about the role of physiotherapy in mental health or the range of treatment techniques used by physiotherapists treating patients with mental health or psychiatric disorders. Barriers and facilitators to physiotherapy in MHD have not been studied nor has physiotherapists' perceptions regarding their role in the management of patients with mental health disorders been investigated. The closest studies that may indicate some relevance are the Nigerian studies by Gbiri et al. (2011) that looked at physiotherapy service provided at a mental health institutions in Nigeria. Therefore there is a need for exploration into the role of physiotherapy, as well as barriers and facilitators to physiotherapeutic management in a South African context.

CHAPTER 3: METHODOLOGY

3.1 INTRODUCTION

This chapter describes the methodology used to carry out the study in terms of study design, study setting and population, participant recruitment, pilot study, data collection, analysis and management.

3.2 STUDY DESIGN

The study design was a qualitative study consisting of interviews with physiotherapists working in mental health facilities. This approach was used in order to elicit and explore the individual participants views and perceptions in detail (Lee et al., 2017, Pope and Mays, 1995).

3.3 STUDY SETTING

The study was conducted in Gauteng province, South Africa. Both public and private mental health facilities identified in the Gauteng province included: Life Poortview, Akeso Crescent Clinic, Akeso Parktown, Vista Clinic, Weskoppies, Akeso Alberton, Life Glynnview, Tara and Sterkfontein. These are all dedicated mental health facilities only admitting patients with mental health disorders and psychiatric illnesses. Tara, Weskoppies and Sterkfontein are all long term facilities and government facilities, while the remaining hospitals are privately run and are considered short term facilities. Interviews were conducted in five of the mental health facilities, namely: Life Poortview hospital, Akeso Crescent Clinic, Vista Clinic, Weskoppies hospital, Akeso Alberton hospital.

3.4 STUDY POPULATION

The study population consisted of qualified physiotherapists working in dedicated mental health facilities in Gauteng, South Africa. Purposive sampling was used to identify participants for the study.

3.4.1 **Inclusion Criteria**

- Participants were qualified physiotherapists registered with the Health Professions Council of South Africa.

- Physiotherapists working in a dedicated mental health facility in Gauteng province, in either the public or private sector.

- Physiotherapists working with both adults and adolescents with any mental health disorder, working in a dedicated mental health facility. Identified by contacting the mental health facility directly.

3.4.2 **Exclusion Criteria**

- Physiotherapists working in general hospitals with a psychiatric ward.

3.5 PARTICIPANT RECRUITMENT

Mental health facilities were identified by contacting the Department of Health (DoH). Only dedicated mental health facilities were considered. Once identified, the mental health facility was contacted telephonically and asked if they had any physiotherapy services available. If they answered that they did, the contact details of the physiotherapist/s working there were requested. The physiotherapists were then contacted telephonically and via email. A participant information sheet (Appendix A) was emailed to the prospective participant with all the information regarding the study. The purpose of the study was explained and they were invited to participate. If the physiotherapist agreed to participate a date, time and place were confirmed to conduct the interview.

3.6 DATA COLLECTION TOOLS AND MEASUREMENTS

A demographic questionnaire (Appendix D) was developed to help establish the profile of physiotherapists working in mental health facilities. It included questions about qualifications, years working as a physiotherapist, years working in mental health and courses attended.

An interview guide (Appendix E) was developed to help guide the interview. The questions were based on the main objectives of the study i.e. to explore

the perceptions of physiotherapist regarding their role in mental health and to identify any barriers or facilitators in the management of patients with MHD. The interview guide was a semi-structured script developed to guide the interview and allow for comparison of responses. This allowed the researcher to ask follow-up questions as needed. The interview guide consisted of three main questions with possible probing questions. The main questions were as follows:

1. Tell me about your work in this area.
2. What are your perceptions regarding physiotherapy in mental health?
   a) Is physiotherapy a necessary part of managing patients with mental health disorders?
   b) What are your experiences working with these patients?
   c) What are the challenges you face in managing patients with mental health disorders?
   d) What makes your role easier to do?
3. What do you think your main role is in managing patients with mental health disorders?

3.7 PILOT STUDY

3.7.1 Aims and Objectives of the Pilot Study

The pilot study was conducted to determine the length of the interview, to practice and improve probing skills, in order to extract relevant information and to identify any problems with the demographic questionnaire or interview guide.

3.7.2 Participant for the Pilot Study

Ten mental health facilities were identified in Gauteng. One physiotherapist working in a mental health facility was identified and approached to participate in the pilot study.

3.7.3 Procedure for the Pilot Study

One participant was identified and invited to participate in the pilot study. On agreement, a date and time was set for the interview. A copy of the participant information sheet was e-mailed to the participant.

On the day of the interview, the purpose of the study was explained to the participant. Written consent for participation and audio recording was obtained prior to the interview commencing. The participant was also asked to complete the demographic questionnaire.

Audio recording began once all documents were signed and completed. The participants name was not included in the audio recording for confidentiality reasons.

The interview guide outlined above was used to guide the interview.

The pilot study was observed by the two research supervisors and feedback was given to the researcher with regard to interview techniques and probing skills.

3.7.4 Findings from the Pilot Study

The interview lasted approximately thirty minutes. The researcher tended to use close ended questions when probing that resulted in yes/no answers and hence more probing was required. Thus the researcher was advised to rephrase questions in such a way that it was open ended and allowed the interviewee to elaborate on the question asked.

The participant had no problems completing all the required documentation. It was determined that the questions were feasible. The interview time was initially estimated to be one hour in order to gain as much insight and understanding as possible. Even though the pilot interview only lasted thirty minutes, all the required information was obtained. It was however decided to keep the maximum interview time at one hour.

Outline of data collection procedure:

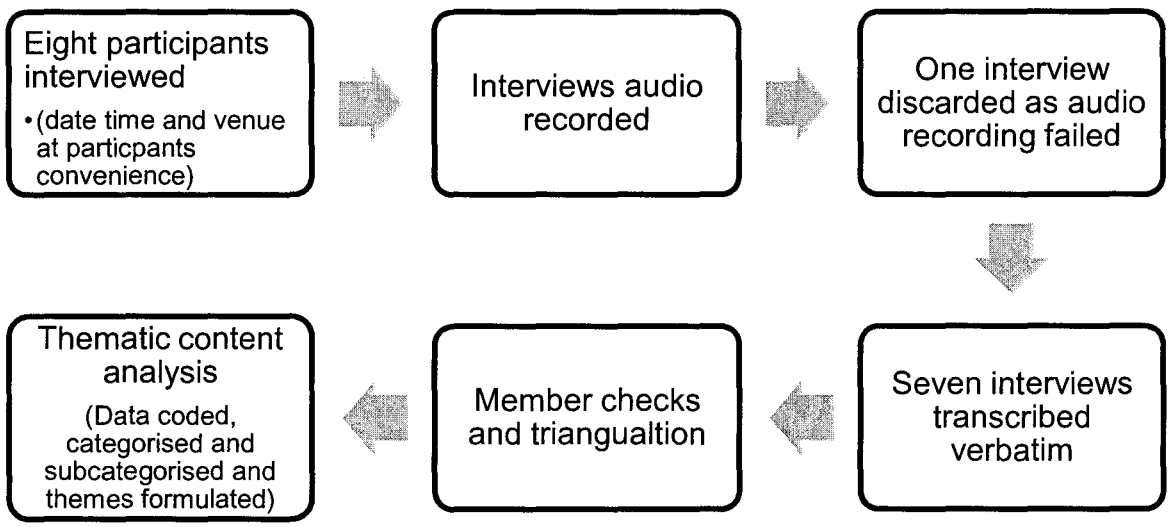


Figure 3.1: Data Collection Procedure

3.8 MAIN STUDY: DATA COLLECTION PROCEDURE

Once the physiotherapist agreed to participate in the study, a time and place for the interview, convenient to the physiotherapist was arranged. The purpose of the study was explained in the participation information sheet which was emailed to the participant prior to the interview. At the start of the interview the study was explained to the participant. The participants were asked to sign an informed consent form (Appendix B) as well as consent for audio recording (Appendix C) prior to the interview commencing to indicate their willingness to participate. The participants were then asked to complete the demographic questionnaire (Appendix D), after which the interview was conducted.

The questions of the interview guide (Appendix E) were open-ended so as to elicit as much of the participants views without leading or guiding. The participants were asked to elaborate or expand on certain concepts they raised. Probing questions were used if the participants appeared unsure of what was being asked.

The interviews were recorded using the 'ALON' voice recorder application for cell phones as well as a back-up audio recorder. Notes were also made in a

research journal by the researcher, to refer back to at a later stage and to clarify certain answers.

Interviews were conducted from August 2016 to May 2017, until data saturation was reached which occurred after seven interviews. Data saturation is reached once no new ideas are introduced, no new themes or coding is produced and the study can be replicated (Fusch and Ness, 2015, Guest et al., 2006). Guest et al. (2006) suggested that data saturation was reached as soon as six interviews were completed.

3.9 DATA MANAGEMENT

All interviews were recorded but no names were recorded on the audio recording. The demographic questionnaire was kept separate from the audio recording in a locked up filing cabinet. Only the researcher, supervisors and transcriber had access to the raw data.

3.10 DATA ANALYSIS

Data analysis was conducted using Creswell's method of data analysis for qualitative research. The demographic profile of the physiotherapists was analysed using an excel spreadsheet. Averages were calculated as a percentage and then compared. Inductive analysis was used to investigate the perceptions of the physiotherapists, while deductive analysis was used to determine the barriers and facilitators to management. Deductive analysis may be defined as "data analysis that sets out to test whether data are consistent with previous assumptions, theories or hypotheses identified or constructed by the investigator" (Thomas, 2006). The question asked by the researcher to identify barriers and facilitators to management, specifically asked the participant what they felt the barriers and facilitators were, guiding the participants responses. According to Thomas (2006), inductive analysis is the systematic approach guided by the specific objectives of the study. It makes use of detailed reading and interpretation of raw data to identify ideas and themes by the researcher and allows the research findings to develop based on recurrence of ideas and the development of themes (Thomas, 2006). For inductive analysis, the interviews were transcribed verbatim. Two transcribed interviews were coded separately by the researcher and both supervisors. A

meeting was then held to discuss similarities and differences in order to reach an agreement on the coding system. The interviews were transcribed and coded immediately after they were conducted. Once all interviews were coded a second meeting was held with the research supervisors to collectively determine categories and themes. Thematic content analysis was done – similar foci were categorised and sub-categorised and themes were compared between the researcher and supervisors. Discrepancies were discussed and an agreement was reached on categories and themes. Trustworthiness was further confirmed through member checks and triangulation of data occurred. Triangulation is the processing of using three or more different methods in combination to check the validity of the research (Pope and Mays, 1995). Multiple methods are used to triangulate the data e.g. observations, interviews and documents to organise data into themes and categories (Creswell and Miller, 2000). In this study, triangulation was done by comparing transcribed data with notes taken during the interview process, comparing themes with supervisors and consulting the available literature. The observers were present at the pilot interview and were familiar with the interview guide and the main objectives of the study. Three meetings were held to discuss codes and themes and any disagreement between researcher and the two supervisors was settled after discussion and rechecks.

3.11 ETHICAL CONSIDERATIONS

Ethical clearance was obtained from the University of Witwatersrand Human Research and Ethics Committee (Ethical clearance number: M160536) (Appendix G).

All participants were invited to participate in the study, participation was voluntary and participants could withdraw at any point. All participants were informed of exactly what the study entailed and were given the opportunity to ask questions. Participants were asked to sign an informed consent form (Appendix B), as well as an audio recording consent form (Appendix C) to indicate their willingness to participate in the study.

Confidentiality was maintained by not recording their names on the audio recording. Each participant was identified in the transcripts by their initials only. All demographic data was kept separate from the audio recordings in a locked storage cupboard.

CHAPTER 4: RESULTS

4.1 INTRODUCTION

This chapter will outline the results obtained from the seven interviews conducted with physiotherapists working with patients with mental health disorders.

The objectives of the study were to

1. Establish the profile of the physiotherapists managing patients with mental health disorders.
2. Explore the perceptions of physiotherapists regarding their role in the management of patients with mental health disorders.
3. To determine the physiotherapists' perceived barriers and facilitators in the management of patients with mental health disorders.

4.2 DEMOGRAPHIC INFORMATION

A demographic questionnaire was used to obtain the profile of the physiotherapists working in mental health facilities.

Table 4.1: Demographic Information on Participants (n=7)

Variables											
Age	**Gender**		**Education**			**Work Experience in Mental Health (yrs)**				**Work Environment**	
Mean (SD)	**n (%)**		**n (%)**			**n (%)**				**n (%)**	
	Male	**Female**	**BSc (Physio)**	**MSc (Physio)**	**MSc (Other)**	**<1**	**1-5**	**11-15**	**>15**	**Public**	**Private**
36.9 (±12.3)	3 (42.9%)	4 (57.1%)	7 (100%)	2 (28.5%)	1 (14.3%)	1 (14.3%)	3 (42.9%)	1 (14.3%)	2 (28.5%)	1 (14.3%)	6 (85.7%)

Eight physiotherapists agreed to participate in the study. A total of seven physiotherapists from five mental health facilities were included in the study. One interview was excluded due to technical difficulties with audio recording equipment.

All participants, except one, worked in private mental health facilities in Gauteng. Three government facilities were identified during the recruitment phase of the study. However, only one of them had a physiotherapist employed, who at the time of data collection, was doing his community service.

The participants with higher degrees had master's degrees in physiotherapy specialising in orthopaedics and sports and, another participant had a master's degree in mindfulness. One of the participants was completing a PhD in sports at the time of data collection. Other qualifications obtained by participants included a post-graduate Certification in Orthopaedic Manipulative Therapy (OMT) (four participants) and a Certification in Pain Management (one participant). Only one physiotherapist had attended any courses/congresses related to mental health and psychiatry (this physiotherapist had a master's degree in physiotherapy).

4.3 THEMES

The themes which emerged from the inductive and deductive analysis included: lack of consensus regarding the role of physiotherapists in the management of patients with MHD as well as barriers and facilitators to management.

4.3.1 Theme 1: Lack of Consensus

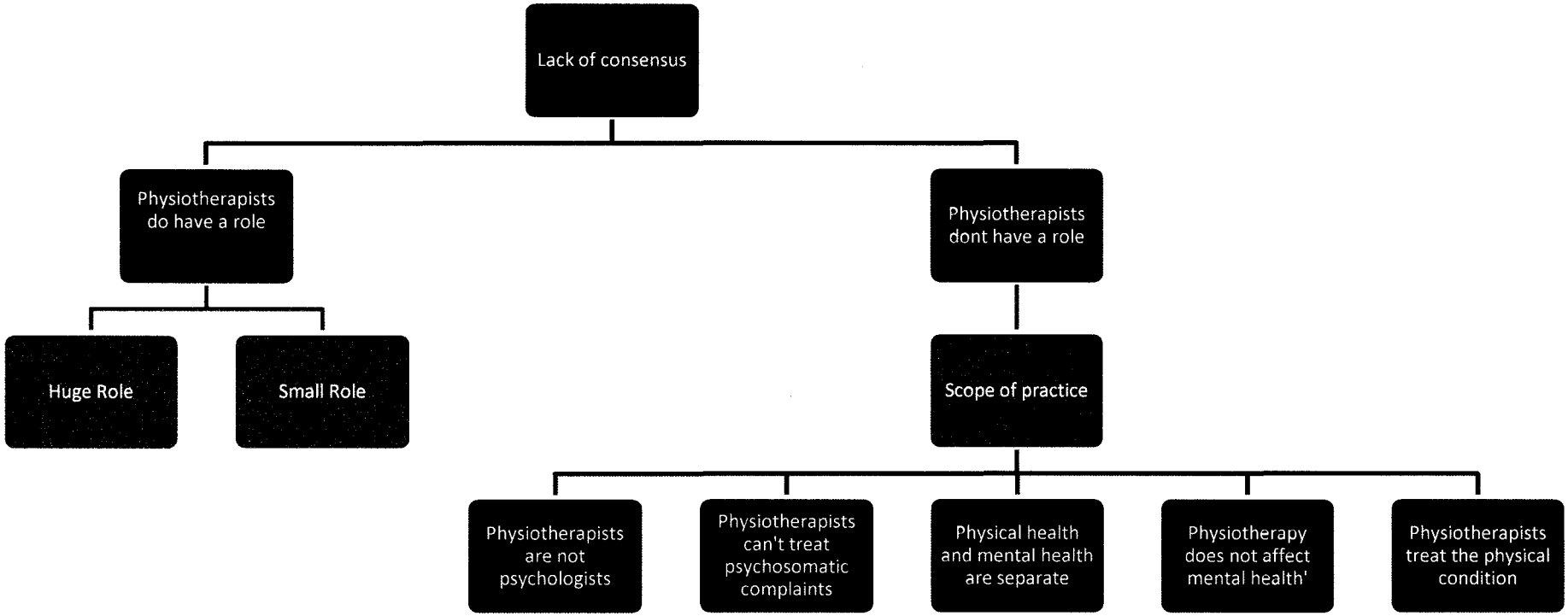


Figure 4.1: Schematic Overview of Theme 1: Lack of Consensus

Table 4.2: Theme 1: Lack of Consensus

Category	Subcategory	Code	Quote
Physiotherapists have a role to play		Huge Role	*"We've got a tremendous amount to offer" (6)** *"I think we have a huge role to play" (7)**
		Small Role	*"..but the role we are fulfilling is a minority role" (1)**
Physiotherapists don't have a role to play	Scope of Practice	Physiotherapists are not psychologists	*"So a lot of time the physio themselves are in that box that physio is hands on and that's not our role to speak like the psychologist, the counselling is not our job" (7)**
		Can't treat psychosomatic complaints	*"Because psychosomatic pain you can't treat it because the problem isn't in the physical it's a mental thing" (5)**
		Physical health and mental health are separate	*"I also see the mental illness makes it difficult to focus on the physical aspects. Because you need to deal with that before the reason why you are there" (2)**
		Physiotherapy does not affect the mental health disorder	*"What I started to realise is that no matter how good I am, it's a mechanical tool trying to fix a mental problem." (6)**
(Physiotherapists don't have a role)		Physiotherapists treat the physical health disorder	*"The way that we work is that we are mainly treating their physical state – via relaxation, via tissue release / manipulation and everything else. Definitely we have an impact on their physical well-being and you see it in the patients" (1)**

*denotes participant number

The perception of the physiotherapists regarding their role in the management of patients with MHD was divided. Some participants believed that physiotherapists played a big role while others felt they did not play a role. The latter believed that they managed the physical complaints the patient presented with. However, some of the participants who believed that physiotherapists had a role to play often contradicted themselves during the

interview by stating that physiotherapists do not have a role to play in the management of patients with MHD. This contradiction is highlighted in the quotes below. Some participants felt that the role of the physiotherapist in mental health facility was more of an additional service and not an essential component in the management of patients with mental health disorders.

Examples of contradictions stated by the participants are depicted below:

Participant 5 - *"so they really benefit a lot from physio" "and I think it just adds to the value that the patient gets here and gets them much, much better"*

Participant 5 - *"if you think about it, physio isn't essential and this is not a 1st world country"*

Participant 1 - *"So we've got a very key role in addressing issues with mental health"*

Participant 1 - *but the role we are fulfilling is in the minority role"*

Participant 2 - *"I do play a small role in the patients"*

Participant 2 - *I do feel that we help a lot, if you look at physical exercise and mood.*

..I think it's important for a mental health facility to have physio."

Participant 7 - *I think a lot of time, the perception and the mind-set of the physio needs to change in order for them to actually target this population. So a lot of the time the physio themselves are in that box that physio is 'hands on' and it's not our job to speak like a psychologist, the counselling is not our job"*

Participant 7 - *"doesn't really matter about the condition they present with, they all pretty much the same treatment"*

The second category of theme 1 (table 4.2) was that physiotherapists do not have a role to play in mental health. Participants specified that physiotherapists need to be aware of their scope of practice as physiotherapists and cannot treat the psychological condition. The same was said for psychosomatic pain as the cause of the pain is 'mental' and patients require cognitive behavioural therapy (CBT) and other psychological strategies to manage their pain. Most participants strongly believed that physiotherapy

managed the physical complaints the patients presented with. Also, some participants stated that the patients often did not believe that physiotherapy could help them as they were there to 'fix their brain'.

Table 4.3 below outlines the perceived roles of a physiotherapist, seen either as curative, health promotive or preventative as identified by the participants who believed that physiotherapy has a role to play in the management of patients with MHD.

Table 4.3: Role of Physiotherapy in Mental Health Disorders

Type of Role	Code	Quote
Curative	Pain Management	*"addressing the level their pain is on and giving the patient education on that'(1)** *"With most of the patients here they will say they have pain from head to toe" (4)**
	Movement and Exercise	*"With us, there is definitely a spot because exercise improves health" (3)**
	Relaxation	*"Physiotherapy actually aids in relaxing them" (1)**
	Manual Therapy	*"In my capacity, I'm doing more hands on" (1)**
	Electrotherapy	*"TENS" "Ultrasound" (2,3,4)**
	Psychological Strategies	*"With the latest understanding of pain theory, if you are not doing psychology, you are not treating the patient" (6)**
	Combining physiotherapy and psychology	*The therapy (hands on) is secondary to what I am saying. It's a gateway (hands on). One of the advantages I have over psychologist and psychiatrists" (6)**
Health Promotion	Holistic	*"Take care of the patient as a whole" (5)**
	Promotion	*"patient exercise routine, so we promote that" (3)** *"I started to present lectures to the doctors....I lecture to them about the role of physiotherapy in psychiatry" (5)**
	Behaviour Change	*"changing their behaviour and changing their mind sets" (7)**
(Health Promotion)	Multidisciplinary Team	*"I believe we all need to work together – physio, OT, psychiatrist, doctor, all need to work together, it's with every hospital setting there should be input from every aspect because we all have something to give these patients" (1)**

Type of Role	Code	Quote
(Health Promotion)	Empower	*"Knowledge is empowering and if they have knowledge about why they develop these headaches and they not getting brain tumours, you must remember they are not thinking rationally, all chest pain is a heart attack, and it's all trigger points, and, if we could just tell these patients that and what they can do to prevent it, it's actually very self-empowering for these patients" (5)**
Preventative	Chronic problems	*"prevention is a good thing as you don't want them to end up here again" (3)**
	Education	*'"patients need to be equipped, need to be educated why they have got pain and what they can do not to have pain and what they can do instead of taking pain medication. We do a bit on lifestyle, bit on diet" (5)**

*denotes participant number

Participants indicated that patients often presented with a wide variety of complaints. Table 4.4 below shows the common physical, mental health and secondary conditions participants reported seeing.

Table 4.4: Conditions Seen by Participants

Conditions		
Physical conditions	Spinal	Headache, cervical pain low back pain,
	Peripheral	Temporomandibular joint pain. Knee pain and surgery, ankle fractures, shoulder pathology, hip pathology
	Neurological	Stroke, Parkinson's, Cerebral Palsy Duchenne's Muscular Dystrophy Neuropraxia
	Other	Biomechanical Problems, mobility and co-ordination problems Chronic pain Complex Regional Pain Syndrome
Secondary conditions		Obesity, fatigue, low exercise tolerance
Mental Health Disorders		Depression, Anxiety Bipolar Disorder, Schizophrenia, Conversion Disorder, Neurosis, Psychosis Alzheimers/Dementia/Intellectual Disability, Work stress/Burnout Substance Abuse

The participants felt that their main role was to manage the physical and secondary complaints that patients with mental health disorders presented with. The modalities used to manage these complaints included the use of manual therapy techniques, electrotherapy, movement and exercise, education, advice and counselling; these were used in various combinations depending on how the patient presented. Participants reported that the management of these patients need to be holistic and that physiotherapists need to promote behaviour change and empower the patient by providing them with knowledge and prevent chronic and secondary conditions from developing.

4.3.2 **Theme 2: Facilitators and Barriers**

4.3.2.1 **Theme 2a: Facilitators to management**

Work environment, work experience, physiotherapist's attributes as well as patient behaviour and characteristics were identified as facilitators to the management of patients with MHD.

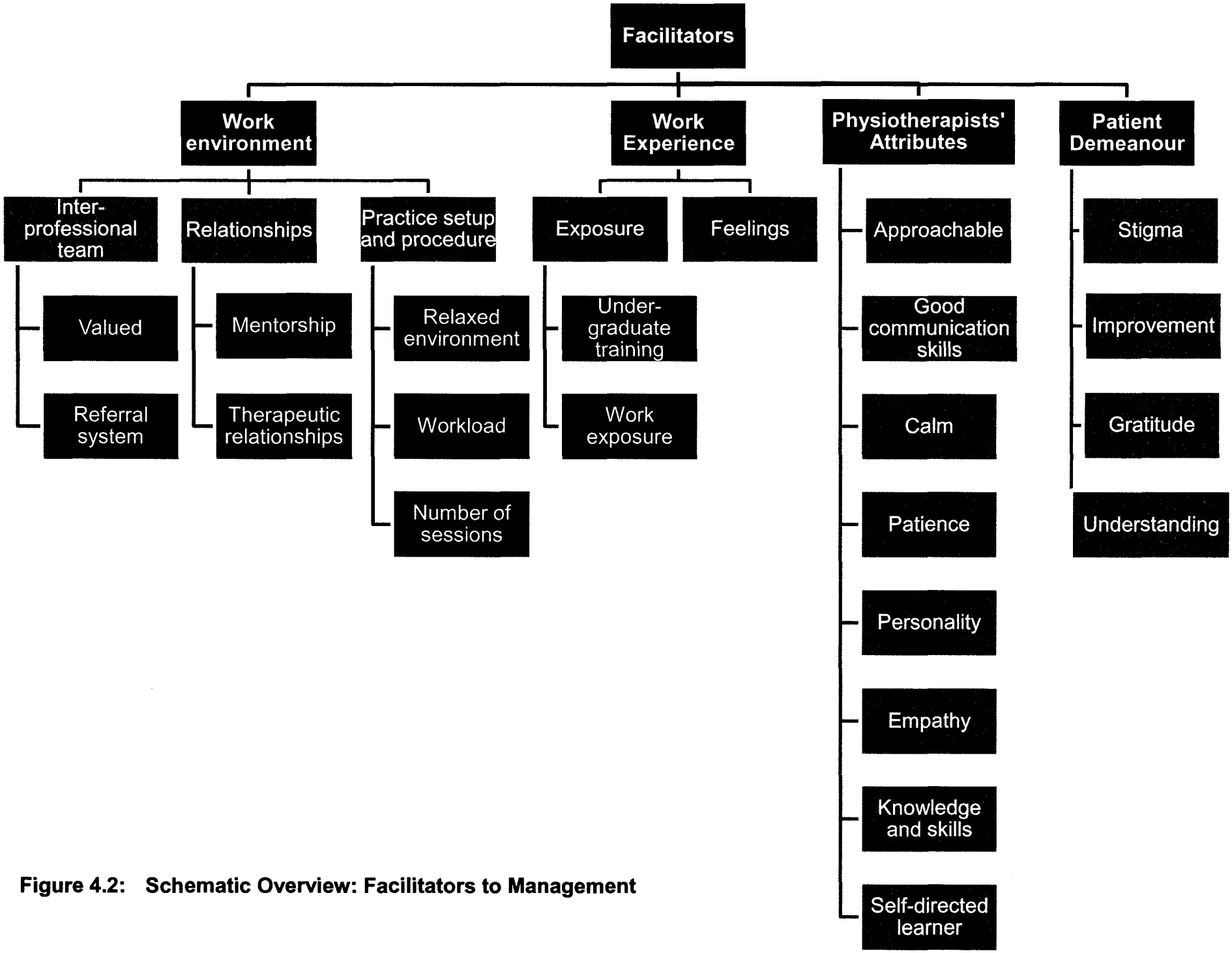


Figure 4.2: Schematic Overview: Facilitators to Management

Table 4.5: Facilitators to Management

Category	Sub-category	Code	Quote
Work Environment	Inter-professional Team	Valued	*"They've really accepted us. They definitely feel that we do make a difference, especially from our medical director" (5)**
		Referral System	*"A lot referral goes on between us and them (doctors and physio)."(1)** *"then also sisters can see in the ward who is abusing painkillers or who they think can benefit from physio, they will suggest that to the doctor and the doctor will refer" (5)**
	Relationships	Mentorship	*"luckily I have someone with more experience than me to help me with the situation and make it better" (3)** *"Colleagues, who also have done the pain course, like my boss, who has been through so much and has a world of experience which I can gain" (7)**
		Therapeutic relationships	*"if my patient is lying down and just keep my hand on my patient, that touch, that safety and that knowing that you there for them helps them a lot." (7)**
(Work Environment)	Practice set up and procedures	Relaxed environment	*"Everything is quite relaxed" (2)**
		Workload	*"There aren't deadlines or patient loads for the day. It's decided upon by myself" (2)**
		Number of sessions	*"we try and see them more frequently, so on a daily basis, if they not too bad every second day" (7) **
Work Experience		Feelings	*"it's been a pleasant experience and quite a rewarding process." (1)** *"They (patient) actually improving so it's really, there's definitely satisfaction in that because they do get better" (2)** *"I have seen amazing differences" (4)**
	Exposure	Undergraduate training	*"I was on psychiatric block last year at Lentegeur in Mitchells Plain"(2)**

Category	Sub-category	Code	Quote
(Work Experience)	(Exposure)	Work exposure	*"The more time our patients are seen like this (with mental health disorders) the better I can identify a certain patient or a certain characteristics, and that helps me to treat those patients" (4)**
Physiotherapists attributes		Approachable	*"And also like I said just being approachable, being, making yourself that they feel like you there for them" (7)**
		Good Communication skills	*"communication skills is the biggest thing that I feel makes an impact" (7)** *"Some patients are just there to be able to speak to you, to tell you how they are feeling and if they get a massage and a rub out of it then that makes them feel better" (1)**
		Calm	*"you have to be and also the way you speak to them, you have to be calm, you can't be like, highly strung yourself" (7)**
		Patience	*"I think you need a special skill set also to deal with these patients. You've got to have a lot of patience with them"(7)**
		Personality	*"it takes a very unique physio to have work at (institute name removed). It's not just every person that can do this" (5)**
(Physiotherapists' Attributes)		Empathy	*"For me, it was. I had a tough couple of years in my personal life. So I think I could identify a lot with what the patients are going through. You tend to treat them with more empathy" (4)**
		Knowledge and skills	*"it is a specialised field"(5)** *"I think you need a special skill set also to deal with these patients" (7)** *"It takes a very unique physiotherapist to work here. You must have a little knowledge about the various types of mental disorders and where you can intervene" (5)**
		Self-directed learner	*"I've done a lot of reading on my own"(4)** *"I've actually been doing a bit of research of my own" (4)** *"If that is your passion you would have to self-educate" (5)**

Category	Sub-category	Code	Quote
Patient Demeanour		Stigma	*"I found that patients, as much as they have psychologists, they think again... that it's that whole stigma behind' it's all in my head' whereas with physio they don't have that, so they can still speak to you and I think they actually end up telling you more than the psychologist" (7)*
		Regular clientele	*"had some really good results where they say we made them feel so much better, a lot of these patients end up being regular patients at our practice" (1)**
		Gratitude	*"And he was very grateful" (1)**
		Patient understanding	*"I think it was also the understanding of what was going on. It was huge for her "(4)** *"I think if they understand why you are doing something it makes such a big difference" (4)**

*denotes participant number

Participants described their work experience as positive as they could see improvements in their patients. Common words used to describe these feelings included: "*nice, amazing, pleasant, rewarding and satisfying*". Factors which contributed to positive work experience included good relationships with colleagues and the inter-professional team, collaboration with the inter-professional team and a working environment that is conducive.

The therapeutic relationship between the patient and the physiotherapist was also mentioned as a significant enabler. It was felt by most participants that developing a therapeutic relationship of trust and safety with patients helped in the treatment programmes. Participants reported that patients often confided in them about their concerns and difficulties. Physiotherapists had the added benefit of touch in their treatment which helped develop the therapeutic relationship further.

Participant 6 - *"And the research has shown that headaches, for example, the relationship between the physiotherapist and the outcome was tremendous. The highest correlation was whether the physiotherapist liked the patient. That was the biggest predictor of outcome. The second biggest predictor was whether the patient felt listened to"*

Participant 7 - *"As much as a psychologists are there, we have the added benefit of touch, which touch is huge, because, even sometimes I just sit there, if my patient is lying down and just keep my hand on my patient, that touch, that safety and that knowing that you there for them helps them a lot. Learning more about communication skills and those type of things and then my treatment changed more to speaking and better..... building up communication and relationships with patients and just kind of listening to them more than anything".*

Participant 1 - *"In a way we almost like psychologists, not saying that we give advice, but we pick up on these issues that the patients have. Something they won't tell their doctor or won't tell anyone else"*

Participant 3 - *"I think this is a safe haven; they always like to come to me because they feel safe"*

4.3.2.2 Theme 2b: Barriers to management

Barriers identified by the participants included the work environment, work experience, patient demeanour and physiotherapists' knowledge.

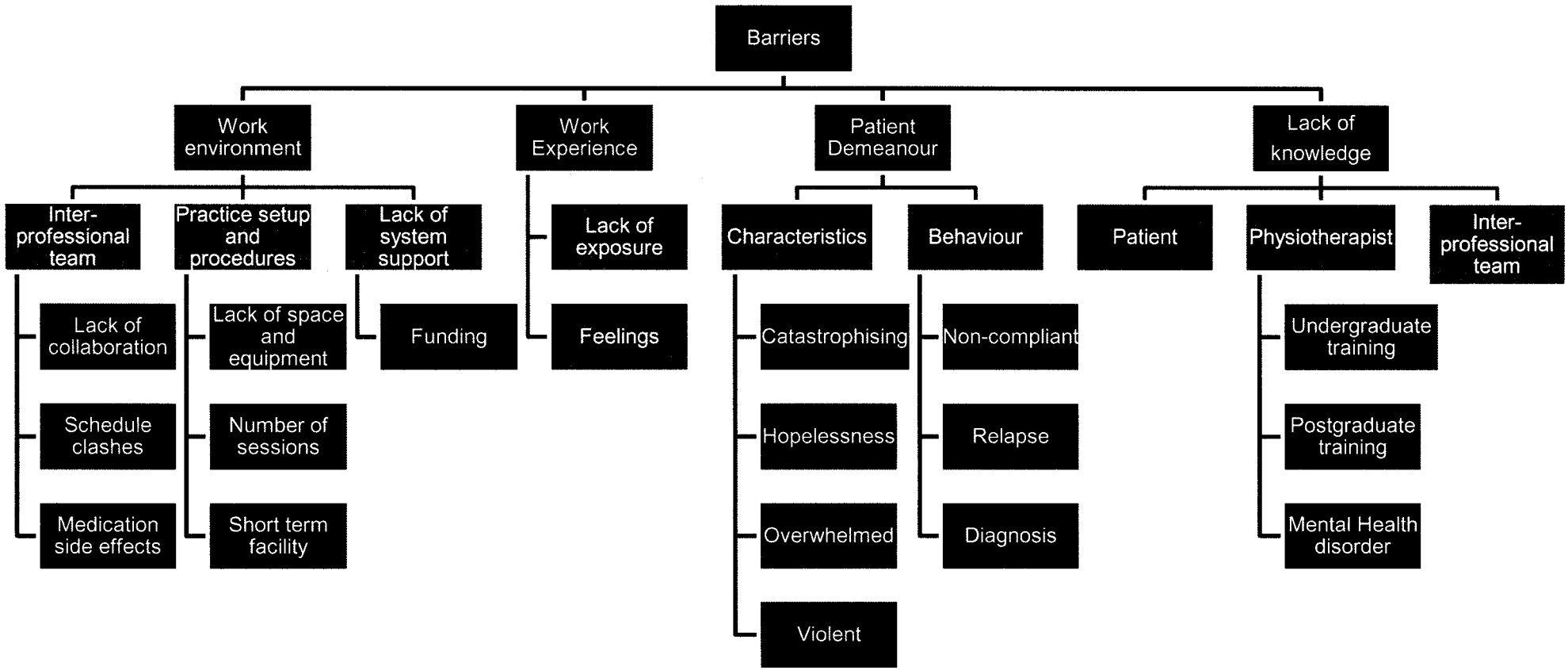


Figure 4.3: Schematic Overview: Barriers to Management

Table 4.6: Barriers to Management

Category	Subcategory	Code	Quote
Work Environment	Practice Set up and Procedure	Lack of space and suitable equipment	*"they could give us more rehab kind of area or that is that we can use the whole time, where there's balls and there's mats and but like more rehab "(3)**
		Number of sessions	*"it is now just increasing. To the point where I can see a patient once or twice a week" (2)** *"It depends how long they staying. If they only there for a week we see them every day, if they there for 21 days sometimes it's not too bad to skip a day and then we don't see them on weekends" (7)**
		Short term facility	*"patients are here for such a short period of time" (5)** *"It takes you years and years to change your mind, if you change it. They get three weeks in (Institute name removed) a year. You can't change people that have gone that far" (6)**
(Work Environment)	Lack of System Support	Funding	*"So the medical aids are big problem and it limits who you can see and who we can't see. But most of these patients can't afford it because a lot of the problems they are dealing with are financial issues" (5)**
	Interprofessional team	Lack of collaboration	*"We are only here for a short period of time in the afternoon, let alone get time with the doctor to have a multidisciplinary meeting" (1)** *"I don't really work together with the OTs" (3)**
		Schedule clashes	*"One of the problems about working here is that everyone goes to OT, they have a social worker. With staff its negotiating time, because of the OT, social work and psychology clashes" (2)**
		Medication side effects	*"Some ways, some patients are so drugged out of their minds they aren't all there and that hinders the process a little bit and they don't get a lot out of the session." (1)**

Category	Subcategory	Code	Quote
(Work environment)	(Interprofessional team)	(Medication side effects)	*You know, with medication here its making the patients very drowsy, with the medication they can be quite forgetful" (4)** *"Usually the first week they are heavily medicated, so you can't do too much with them. "They don't even remember that you were even there to see them." (7)**
Work Experience		Lack of experience	*"that is a challenge for me to treat that because we learn with... experience comes with learning, so I don't have experience, so I'm still in a way learning to do that" (3)**
		Feelings	*"it does drain you a little bit mentally, you dealing with serious issues/conditions, serious histories. So emotionally it's quite a draining process."(1)** *"It's terrifying to see someone that is so lost" (6)** *"some people you just dread going to see" (7)**
Patient Demeanour	Characteristics	Catastrophising	*"they are going to end up with some type of operation or of they have back problems, they are going to end up in a wheelchair"(participant referring to way patient feels) (7)**
		Hopelessness	*"Sometimes they tend to lose hope and say 'I don't know if she is really going to help me' that kind of thing" (7)**
		Overwhelmed	*"Because a lot of them are quite emotional and ready to commit suicide. Sometimes they come in and you can see everything is just too much and then with the pain they don't want to do anything" (7)**
		Violent	*"There are some barriers such as some patients who get violent" (2)**
	Behaviours	Non-compliant	*"Compliance is a challenge" (6)** *"I often have patients who don't want to participate in physio" (2)**

Category	Subcategory	Code	Quote
(Patient demeanour)	(Behaviours)	Relapse	*"A lot of patients here are repeats. I have seen patients over time and sometimes they do well and sometimes they end up with another problem" (7)**
	Diagnosis	Mental health disorder	*"I can't treat someone who is psychotic or has manic episodes, that is contra-indicated because that patient isn't in touch with reality.....and can interpret what you are doing in a totally different way" (5)** *"if they are too low functioning they don't really understand" (2)**
Lack of knowledge	Patient		*"A lot of the patients here don't know how physio can benefit them" (4)** *"Patients also don't understand their own conditions, so when they have pain they think it must just be like that" (5)**
	Physiotherapist	Mental health disorder	*"Unfortunately I don't understand the mental conditions enough.." (1)** *"I think I need a bit more, or, education on this specific mental health thing. I need to improve my knowledge." (3)**
(Lack of knowledge)	(Physiotherapist)	Training: undergraduate and postgraduate	*"No training in mental health (undergraduate)" (4)** *"When you go on these physio courses they don't really teach you anything about depression and anxiety. Cause you hardly ever hear it being mentioned" (4)**
	Interprofessional Team		*"They (Doctors) have an understanding but I think they could do with further education on that particular aspect and how physiotherapy can actually improve the patient's mental state. A lot the time they think it's just medication and a bit of a back rub will get rid of the pain, but we are treating patients on a mental level" (1)** *"I think there is still a lack of knowledge there, because we can do so much more for them but they always just think OTs are involved in mental health because in varsity, physio isn't that much involved in training in that. They just think we are just massaging them but we can offer so much more than just massaging them (3)*

*denotes participant number

Participants reported that this patient population was also difficult to treat and found them to be "draining", "irritating", "tiring" and "terrifying" at times.
The majority of participants (five out of seven) mentioned that lack of system support in the form of medical aid funding was a barrier to treatment.

Participant 1 - *"Often those patients will come and were referred and they want the session and then you say 'well I don't know if your medical aid will cover the session and then they say they can't afford it."*

Participant 6 - *"I've got a list of medical aids that won't pay the moment you step into a psychological facility for physiotherapy"*

Participants expressed that there was a lack of knowledge and understanding of the role of physiotherapy. Patients and members of the interprofessional team did not know how physiotherapy could play a role in MHD. All the participants expressed their lack of knowledge of mental health. All except one participant reported that they did not have any undergraduate training in mental health disorders. One physiotherapist had received some exposure to patients with MHD as an undergraduate student, but the patients that he was currently seeing was not what he had seen as a student. A lack of courses coupled with a lack of experience makes managing patients with MHD a challenge for participants. Although not specific to patients with MHD, doing the national pain course had helped a participant manage patients' pain more effectively and improved her communication skills which she reported to be an asset in her tool-box of skills.

4.4 CONCLUSION

The main theme that emerged was a lack of consensus of the role of physiotherapy in mental health, which was vehemently demonstrated among participants and further emphasised when participants contradicted themselves throughout the interview.

There was some overlap in the facilitators and barriers. Some of the ideas presented by the participants were both barriers and facilitators. These included patient demeanour, work environment and work experience, as well as physiotherapists' attributes and lack of knowledge.

CHAPTER 5: DISCUSSION

5.1 FINDINGS AND INTERPRETATION

The aim of this study was to determine the perceived role of physiotherapists in the management of patients with MHD by establishing the demographic profile, exploring their perceptions and determining any barriers and facilitators that they may face in the management of these patients. The results of this study have demonstrated that there is a lack of consensus of the role of physiotherapy in mental health. Facilitators and barriers to the physiotherapeutic management of patients with MHD were also identified.

5.1.1 Demographic Information

According to the HPCSA, there are 2633 physiotherapists registered in Gauteng. Of this, 2251 are female physiotherapists (85%) and 382 (15%) are male (Daffue, 2017). All the participants worked in mental health facilities in Johannesburg and Pretoria, Gauteng, South Africa. Only seven physiotherapists from five different facilities participated. There were almost an equal number of male and female participants in this study which may just be an indication of those that agreed to participate. Not all physiotherapists working in mental health facilities participated and this number may be affected if all these physiotherapists were considered.

There are approximately ten mental health facilities in Gauteng. Only three of the facilities identified were state facilities. State facilities appeared to offer more long term inpatient services for patients with severe and persistent MHD. These patients may be more at risk of increased mortality and morbidity and may actually require more physiotherapy services than those at short stay facilities. It is interesting to note that only one of the state hospitals had a community service physiotherapy employed. Due to the complexity of the MHD, it may be of value to have placements for more experienced physiotherapists placed in long term psychiatric facilities.

The years of experience varied between the physiotherapists with four of the seven participants having less than 5 years' experience working in mental

health. One participant had less than one years' experience and had been placed as a community service physiotherapist in the only state hospital offering physiotherapy services. This relative inexperience may also contribute to the lack of consensus regarding the role of physiotherapy in MHD (Table 4.1 Page 33).

The lack of training in mental health at an undergraduate and postgraduate level was specified by the participants. Most of the participants had pursued some form of postgraduate training but the majority of these higher degrees were not in the field of mental health, except for one who had completed a master's degree in mindfulness. In South Africa this appears to be a huge gap compared to Scandinavian and European countries. While the education curriculum varies from country to country, European and Scandinavian countries have courses at undergraduate and postgraduate level (Probst, 2012, Connaughton and Gibson, 2016a). Even though physiotherapy congresses in psychiatry happen regularly overseas (Probst, 2012), these may be largely unaffordable for local physiotherapists. Only one participant had attended a psychiatric congress in 2010, and most were not aware of such congresses.

5.1.2 **Lack of Consensus**

Participants were unable to agree if physiotherapy has a role or not in mental health. Some participants even contradicted themselves regarding their role. This could possibly be attributed to a lack of training at an undergraduate or postgraduate level. Conversely Stubbs et al. (2014) and Danielsson et al. (2013), who also looked at the role of physiotherapy in mental health found consensus regarding the role of physiotherapy in mental health because all participants in their studies believed that physiotherapists were physical health experts and the role the physiotherapist played was in managing the NCDs and pain that is often present in these patients. The participants in these studies were mainly from European and Scandinavian countries and may have been more adequately trained in mental health disorders.

Probst (2017) stated that the role of the physiotherapist in MHD is: curative (treatment), preventive and health promotion. This was similar to the views of

participants who believed that physiotherapy does have a role to play. The biggest emphasis appeared to be curative management or treating the existing physical condition - which included treatment of somatic pain complaints using manual therapy and education. This is a necessary role as many patients with MHD often complain of musculoskeletal pain (Gureje et al., 2008, Goesling et al., 2013). It has been stated that a combination of manual therapy and pain neuroscience education was effective in managing patients with chronic pain (Puentedura and Flynn, 2016, Wijma et al., 2016). This approach was used by the participants in this study although the contents of the education they provided varied from patho-anatomical education to pain neuroscience education. Treatment modalities often used by physiotherapists, when treating patients with MHD can be divided into three major categories: management of chronic pain (Peveler et al., 2006, Gureje et al., 2008, Goesling et al., 2013, Gerrits et al., 2012), physical activity and exercise (Richardson et al., 2005, Perraton et al., 2010, Stanton and Happell, 2013) and complementary and alternative treatments (Probst, 2012, Breitve et al., 2010, Gyllensten et al., 2009, Johnsen and Råheim, 2010, Re et al., 2014, Ross and Thomas, 2010).

Participants in this study acknowledged that physical activity and exercise were important to maintain overall health. However, the majority did not use physical activity or exercise therapy as part of their treatment, but rather referred the patient to the gym in the hospital or a biokineticist for exercise. Only one participant conducted exercise classes which included cardiovascular components as well as strength training three times a week. Participants did include some health promotion in terms of lifestyle education (diet, physical activity) in their treatments but it appeared that this was not the main focus. However, Firth et al. (2016) stated that exercise access and advice alone was not effective for improving physical activity levels in patients with MHD. This indicates that physiotherapists may need to support and supervise patients to help improve physical activity levels in patients with MHD. This is made easier when patients are being treated as inpatients as they have access to physiotherapy services. According to the literature, emphasis is placed on the importance of physical activity and exercise to prevent and manage NCDs and mental health (Huang et al., 2016, Pearsall et

al., 2014, Pryor et al., 2017, Soundy et al., 2014). Physical activity can also be used to counteract the effects medication which include lethargy and low motivation (Firth et al., 2016, Hodgson et al., 2011). Physiotherapists are able to provide appropriate exercise programmes in both individual and group therapy. As such, physiotherapists should be encouraged to include more exercise prescription in their management programmes and provide more support and opportunities for patients to participate in these exercise programmes.

Complementary and alternative strategies based on eastern traditions (tai chi, meditation, BBAT, yoga) are also used to address both body and mind disorders. These strategies are often used by physiotherapists in mental health physiotherapy, especially in the Scandinavian and European countries (Probst, 2012, Gyllensten et al., 2009). These therapies aim to unite body and mind but were not used by participants in the study. This may be because they have not been exposed to these modalities or do not understand how these modalities influence the MHD. Only one participant had been to psychiatric congresses where she had come across BBAT but did appear to use this in her daily treatments, possibly due to time constraints and difficulty with medical funding.

Probst (2017) states that physiotherapists should incorporate psychological strategies (e.g. CBT, mindfulness) into their management programmes in order to help facilitate behaviour change. He argues that physiotherapists already provide aspects of CBT by including education (i.e. cognitive strategies), as well as affecting behavioural change by using modalities such as pacing, relaxation and graded exercise therapy. While some participants in this study used mindfulness, relaxation and education in their treatment programmes to help manage psychosomatic complaints, other participants felt that patients with psychosomatic complaints were beyond the scope of physiotherapy. These participants felt that psychosomatic complaints were best addressed by psychologists who were trained to use CBT and better able to manage the patient's psychological wellbeing. This differs to the view held by Probst (2017), and may further indicate a lack of understanding on the role

physiotherapists may play and how they may affect behavioural change in patients with MHD.

5.1.3 Facilitators to Physiotherapeutic Management

Facilitators to the management of patients with MHD include: affordable treatment, making transport available to patients and education about the role of physiotherapy in mental health (Lee et al., 2017). Participants in this study identified the following main categories of facilitators to physiotherapy management in patients with MHD: work environment (interprofessional team, relationships and practice set-up and procedures), work experience (exposure and feelings), physiotherapist's attributes and patient demeanour (fig 4.2 Page 41 and table 4.5 Page 42).

According to one participant, nurses, who deal with patients daily, are also able to identify patients who may benefit from physiotherapy, if they understand the role of the physiotherapist in mental health. As a result of their understanding of the role of physiotherapy and correctly referring patients who need physiotherapy, participants felt that their role in the interprofessional team was valued and accepted. Interprofessional collaboration is an important facilitator in the management of patients with MHD (Lee et al., 2017, Richardson et al., 2005, Kauer et al., 2013). Patients with MHD often present with multiple comorbid conditions and may require management from many different health care providers e.g. psychiatrists, nurses, occupational therapists (Kauer et al., 2013, APA, 2011). Open communication with doctors may help resolve problems quickly and identify any other medical issues so that appropriate management can be given in order to prevent further complications.

Relationships identified as facilitators to the management of patients with MHD included relationships with colleagues, especially physiotherapists working in mental health with more experience, as well as the therapeutic relationship with the patient. Participants felt that having a mentor may also act as a facilitator in the management of patients with MHD. As patients with MHD often have complex presentations, participants stated that being able to communicate with a more experienced physiotherapist helped them better

manage their patients. Most participants reported a lack of experience and understanding of MHD and felt that a mentor could give valuable advice and assistance, improving their confidence when treating these patients. This is consistent with findings from Connaughton and Gibson (2016a) and O'Keeffe et al. (2016). Encouraging those with skills and knowledge to mentor and provide guidance to a mentee, may assist in addressing the knowledge and skills gap (Connaughton and Gibson, 2016a). Mentoring is defined as an interactive relationship between two people, one with more knowledge and experience (the mentor) providing support, guidance and facilitating the development of skills to another less experienced person (the mentee) (Harrington, 2011, Murray, 2002).

Participants in this study agreed that a good therapeutic relationship was seen as an enabler to treatment. They found that once the physiotherapist had the trust of the patient and the patient could see the benefit of treatment, they were more motivated to adhere to their treatment programmes. Similarly Pinto et al. (2012) and O'Keeffe et al. (2016), determined that a good therapeutic relationship was important in the management of patients. The authors found that good listening and communication skills, trust and empathy were important qualities which enhanced the relationship between clinician and patient. This in turn improved adherence to treatment and treatment outcomes. O'Keeffe et al. (2016), found that therapeutic relationship was improved if the patients also believed the physiotherapist had excellent clinical skills and technical ability. This however was not identified by most participants in the study as a part of improving the therapeutic relationship, even though most participants felt that the role of the physiotherapist was mainly curative.

Practice setup and procedures were also identified by participants as facilitators to management in their work environment. Participants stated that working in a relaxed environment, being able to determine their own patient load, as well as the amount of time spent with the patient acted as facilitators. One participant stated that the amount of patients that were being referred to physiotherapy had been increasing and he was no longer able to treat every patient every day. By being able to control his own schedule, this may allow

him to manage patients as needed in order to ensure that all patients referred to physiotherapy receive treatment, without the stress of meeting deadlines and other expectations. Some participants stated that seeing patients every day, or every second day helped improve treatment outcomes. By seeing them often, patients were able to benefit from the education and pain management strategies from physiotherapists, while admitted to a mental health facility. This is similar to findings by Connaughton and Gibson (2016a) who stated that patients with MHD may require longer treatment times due to the nature of their illness. This may need to be considered when determining how often and for how long a patient is seen.

Work experience, another facilitator, consisted of exposure to MHD, as well as participants' feelings and experiences with the patients. Participants who reported that they had some exposure to MHD in their undergraduate training felt well equipped to manage these patients. This is because they have previous exposure and guidance from an experienced teacher or mentor. One participant stated that the more they were exposed to patients with MHD, and the more experience they gained treating these patients, the better they were able to manage these patients as they were more easily able to identify what did and did not work for specific patient complaints. Physiotherapists may rely on personal experience to guide how they interact with patients especially if they have not received any training in mental health (Connaughton and Gibson, 2016a, Van Kessel et al., 2017). Those with more exposure to MHD and their management will have more experience and this may further facilitate the physiotherapeutic management of patients with MHD. Most participants found that working with patients with MHD was a positive experience, referring to their experiences as "rewarding" and "satisfying". This further acted as a facilitator because participants could see the difference they made in their patient's lives. Patients may also see the benefit of physiotherapy and continue to attend and adhere to their physiotherapy exercises, improving treatment outcomes.

Participants also identified attributes of the physiotherapist as a facilitator to the management of patients with MHD. These were similar to the findings of Connaughton and Gibson (2016a), and included attributes such as

communications skills, empathy and being approachable. Similarly participants stated that good communication skills were important to ensure positive treatment outcomes. Empathy, trust, personality and having the knowledge and skills were all identified by the participants as important attributes to have when managing patients with MHD. These attributes will help enhance the therapeutic relationship and further facilitate treatment (Connaughton and Gibson, 2016a, O'Keeffe et al., 2016). Only one participant stated that having a "specialised skill set" and knowledge was very important. It appeared that most participants placed more value on empathy, trust and personality traits as a facilitator to treatment.

Another important attribute identified by the participants in this study was self-directed learning. As one participant stated: "*if this is your passion, you need to self-educate*". Self-directed learning is important as this will help improve skills and knowledge and will further facilitate the management of patients. According to Hammarlund et al. (2013), self-development includes the ability of a person to take control of their own learning. Self-directed learning is important, as there seems to be very little undergraduate or postgraduate training for physiotherapists with regard to mental health in South Africa. Health care providers need to be up to date with latest advances in medical care. Self-directed learning involves motivation, self-management and self-monitoring (Tagawa, 2008). This improves autonomy and self-efficacy (Hammarlund et al., 2013). In the absence of courses or training in mental health disorders, physiotherapists need to be motivated to learn and self – educate to gain knowledge in the field.

Patient demeanour was the final facilitator identified by the participants in this study. This facilitator is further subdivided into: stigma, patient improvement and gratitude. Patients often feel stigmatised as a result of their MHD (Lee et al., 2017, Andrade et al., 2014, Hugo et al., 2003). MHD commonly occur with other physical complaints such as pain and NCD and patients often feel it is more acceptable to complain of a physical pain, as they will be less stigmatised (Borges et al., 2016). Similarly, one participant reported that fear of stigmatisation, as a result of a MHD, actually acted as a facilitator as depicted by this quote "*I found that patients, as much as they have*

psychologists, they think again... that it's that whole stigma behind 'it's all in my head' whereas with physio they don't have that, so they can still speak to you and I think they actually end up telling you more than the psychologist". Patients appear more likely to seek out a physiotherapist for a physical complaint than to see a psychologist or psychiatrist for a MHD. As such, physiotherapists are ideally situated to help manage patients with MHD if they are able to identify and refer to the relevant health care professional. Patients with good treatment outcomes were grateful for the help they received and could see the benefits of treatment. If treatment outcomes are improved, patients may also become regular clientele and attend physiotherapy more regularly as they acknowledge the benefit of physiotherapy in the management of MHD.

5.1.4 Barriers to Physiotherapeutic Management

There are many barriers to patients receiving treatment for their MHD. These include: stigmatisation, lack of funding (healthcare system as well as personal finances), accessibility and availability of mental health services and previous negative experiences (Lee et al., 2017, Hugo et al., 2003, Andrade et al., 2014). Barriers which may relate specifically to physiotherapy include: the MHD (the condition diagnosed), finances and accessibility, lack of support for patients, as well as a lack of knowledge of the role of physiotherapy in MHD (Lee et al., 2017, Andrade et al., 2014, Soundy et al., 2014). Similarly the participants in this study identified lack of knowledge about the role of physiotherapy in mental health by healthcare providers, patients and physiotherapists themselves as a barrier. Other barriers identified by the participants include work environment (practice set and procedures, interprofessional team and lack of system support), work experience, and patient demeanour (Figure 4.3 Page 46 and Table 4.6 Page 47).

Work environment factors which acted as barriers to management under practice setup and procedures included lack of space and equipment, number of treatment sessions and working in a short term facility. Furthermore, the interprofessional team (lack of collaboration, lack of knowledge, schedule clashes and medication side effects) and a lack of system support in the form of funding were also identified as major barriers to the physiotherapeutic

management of patients with MHD. Participants reported that not having adequate space or equipment made it difficult to treat patients as they could not safely rehabilitate their patients. Soundy et al. (2014) stated barriers to physical activity and physiotherapeutic management also include a lack of opportunity for inpatients to be physically active or exercise, as well as the low priority given to physical activity by other health care professionals until they feel the patients MHD has stabilised. This may be the reason why adequate facilities, equipment or space is not allocated to physiotherapy. Not having the space or equipment impacted the treatment programmes as a participant felt that she was not able to provide all the treatment that she would have liked to. Modalities such as physical exercise and strengthening programmes were not performed due to this lack of space and safety in the work environment. As one participant stated: "*they could give us more rehab kind of area or that is, that we can use the whole time, where there's balls and there's mats and but like more rehab stuff*".

Most participants worked in short stay facilities and reported that this did not give them adequate time to treat the patients. Connaughton and Gibson (2016a) stated that patients with MHD needed longer treatment times to help make a meaningful impact. One participant stated that fostering healthy lifestyles and changing mind sets took much longer than the time the patients were in hospital. This indicated that physiotherapy outcomes may be affected as the patient was not receiving adequate amount of treatments to help facilitate change. The only participant working in a long term facility stated that patient referrals to physiotherapy were increasing "*to the point where I can only see a patient once or twice a week*". Due to the patients staying for a prolonged period of time and the increasing referrals to physiotherapy, many patients may not be seen as often as needed. If patient volumes are high and there are not enough physiotherapists to treat this may compromise the treatment a patient receives; they either may not be treated for long enough or may not be seen as often as is required, compromising treatment outcomes. This may indicate a need to employ more physiotherapists in a long term care facility to ensure adequate and appropriate treatment for all patients that require.

Participants who worked in private facilities reported that finances were a major barrier to patients receiving treatment. Lack of system support in the form of funding (i.e. medical aids) and access to treatment also makes it challenging for patients to receive treatment (Lee et al., 2017, Mokwena, 2014, Andrade et al., 2014). In private facilities, treatment occurs on a 'fee per service basis'. Patients using private health care facilities often rely on their medical aids to help fund their stay in the hospital, but as a result may be limited to the schemes rules and managed care programmes. Any services required which are not covered in the managed care programmes then become an expense that the patient is liable for. The ability of a patient to pay for services affects the type and number of treatments they receive. This in turn, may impact the choice of treatment options that the physiotherapist (private proprietor) may make in order to be reimbursed for their services. The three participants that did not mention funding as a barrier were employed in a state facility and private practice and as such were not responsible for the billing of patients.

Most participants in this study acknowledged that they should form part of the multi-disciplinary team. For example, one participant stated that *"I don't really work together with the OTs"* while another reported that they don't really get time to attend a multidisciplinary meetings. The literature describes multi-disciplinary management as management that occurs when one patient is seen by many different healthcare professionals from different disciplines, but there may be a lack of co-ordination of care (Bosy et al., 2010). It can be argued that physiotherapists need to make the move from multi-disciplinary to inter-professional, which provides co-ordinated integrated care in terms of the more holistic biopsychosocial model of care, which is required by patients with mental health disorders as their problems are multifaceted and should not be treated in isolation (Bosy et al., 2010). Participants reported a lack of interprofessional collaboration as a barrier to managing patients with MHD; one participant reported that doctors often did not even consider that physiotherapists may have a role to play in the management of patients with MHD, that *"they just think OTs are involved....physio isn't very much involved"*. They were more familiar with the role of occupational therapists and social workers and as a result did not even consider referral to physiotherapy. This is

similar to findings by Connaughton and Gibson (2016a). Exclusion from the interprofessional team resulted in schedule clashes according to one participant and further added to the patient's lack of knowledge regarding the benefits of physiotherapy.

The side effects of medication, lack of motivation, and patients' general health all act as barriers to physical activity, and as a result to physiotherapy management (Soundy et al., 2014, Hodgson et al., 2011). This is consistent with findings in this study as participants also felt that the side-effects of the medication prescribed to the patients, was a barrier to physiotherapeutic management. It may be interesting to note, however, that forgetfulness and drowsiness may also be a result of the MHD itself and not necessarily just a result of the medication side-effects. Symptoms of MHD may also include irritability, fatigue, concentration issues and memory loss, all of which may act as barrier to physiotherapeutic management (Borges et al., 2016). The lack of motivation and mood swings that these patients present with may also be a result of the MHD itself or a side effect of medication (Lee et al., 2017, Vancampfort et al., 2015). Furthermore, the MHD itself (diagnosis) often makes it difficult for the physiotherapy treatment to have an impact. For example, patients with psychosis and dementia are difficult to treat because they are not in touch with reality and struggle to understand, as well as remember having treatment.

Patient demeanour (characteristics, behaviour and diagnosis) was also a barrier to treatment. Participants reported that often patients were difficult to treat because they were frequently non-compliant, had relapses, often had low motivation and felt hopeless. "*Sometimes they tend to lose hope and say 'I don't know if this is going to help me'*" Cognitive factors such as catastrophizing, unhelpful expectations and psychological factors e.g. depression and anxiety) contribute to poorer treatment outcomes (Synnott et al., 2015) and can result in pain becoming chronic as pain often co-exists with the MHD. Participants reported that often patients were catastrophisors or were violent at times, making it difficult for them to be treated. This is similar to findings by Lee et al. (2017).

Lack of experience and exposure to MHD acts as a barrier to treatment. Lack of experience and training in treating patients with MHD may also make treating patients with MHD more difficult. Participants repeatedly stated that they had no undergraduate education or clinical experience in mental health. This lack of experience may result in negative attitudes towards the management of these patients. Participants reported that patients with MHD were often draining and emotionally taxing. However, according to Probst and Peuskens (2010) and Connaughton and Gibson (2016b), educating physiotherapists about MHD, may improve their attitudes towards psychiatry. This education may provide the physiotherapists with skills necessary to manage the complex conditions and they may then feel less emotionally drained. Physiotherapists that lack experience may also resort to strategies or personal preferences which they feel may help the patients (Connaughton and Gibson, 2016a). This was made apparent by participants stating they had specific interests or preferences and tended to use these preferences in the management of their patients. For example if a physiotherapist has a special interest in ergonomics they will provide ergonomic advice more frequently as depicted by the following quote: "*I actually have an interest in ergonomics, so information on how to sit at their desks*". Physiotherapists with training in chronic pain management, appear to prefer a more hands-off approach, choosing to educate and counsel their patients more.

Lack of knowledge by patients, physiotherapists and members of the interprofessional team was stated as a major obstacle in the management of patients with MHD as patients who would benefit from physiotherapy treatment may not be referred, or patients will choose not to attend physiotherapy as they don't know why they need it (Connaughton and Gibson, 2016a). Similarly, participants in this study reported that often patients themselves did not know why they had been referred for physiotherapy or how physiotherapy could help them. According to a participant patients believed they are there to *"fix their brain"* and not their physical health and do not know the link between the two. Participants also stated that educating patients was important and may further help prevent relapse and non-compliance. This education needs to be patient-centred as stated by O'Keeffe et al. (2016) and Pinto et al. (2012). Participants agreed that if the physiotherapist is able to

educate the patient about why they need physiotherapy and about their MHD, this may facilitate physiotherapy treatment and may help improve treatment outcomes as the patient will be a more willing participant in their management. According to participants, healthcare providers also do not understand the role of physiotherapy in MHD and may not refer appropriately. As a result, physiotherapists may not play as large a role in the interprofessional team as they are able to. This is consistent with findings by Vancampfort et al. (2018) and Lee et al. (2017). The consensus from these studies was that physiotherapists were not perceived to be important members of the interprofessional team, mostly due to a lack of awareness and understanding of the role of physiotherapy in MHD (Lee et al., 2017). This was similar to the findings in this study as participants believed that only when their role was well understood and doctors were aware of the role they played could they be a more integral part of the interprofessional team. Lee et al. (2017) stated that these barriers could be overcome by improving education of all role players involved in mental health and marketing the physiotherapy profession to these various role players. However if physiotherapists themselves cannot agree on the role of the physiotherapist in MHD, advocating for their inclusion in the interprofessional team will not be successful.

Training in mental health physiotherapy varies from country to country but European and Scandinavian countries seem to be at the forefront (Probst, 2012). Many participants identified that they had received no undergraduate training in mental health. Physiotherapy students that were educated in MHD and had clinical experience in their undergraduate training , generally had a more positive attitude towards patients with MHD and were better equipped to manage these patients (Probst and Peuskens, 2010, Connaughton and Gibson, 2016b). Ntsiea et al. (2017) stated that undergraduate curriculum needs to cover a wide variety of medical conditions that students will encounter in clinical practice (Ntsiea et al., 2017). The only condition related to MHD mentioned in this study was “stress”. No other MHD were mentioned. It is important to remember that there are MHD that often present as physical complaints initially (Haftgoli et al., 2010). Mental health disorders are often co-morbid with cancers, cardiovascular diseases, respiratory disease and obesity (Hert et al., 2011, Hodgson et al., 2011). It is also important to note that the

rate of MHD is on the rise, with depression set to become the second leading causing of disability worldwide (Huang et al., 2016). Hence, students and practitioners are more likely to come across patients with MHD in their daily practice. Ntsiea et al. (2017) stated that the clinical programme covers all medical conditions seen by physiotherapists, however these statistics may only indicate the primary condition treated and does not indicate whether the patient presents with a co-morbid MHD or secondary condition.

By improving education whether at undergraduate or post graduate level, barriers such as lack of understanding, lack of knowledge and stigmatisation can be overcome (Lee et al., 2017). "Physiotherapists deliver person-centred care using a biopsychosocial approach, but actual practice within this paradigm becomes problematic if the physiotherapist does not have adequate background knowledge of mental health and its impact on a person's physical health" (Connaughton and Gibson, 2016a).

In Africa, mental health appears to have a low priority which may be a result of the large burden that infectious diseases such as HIV/AIDS place on the health care system, which means less human resources and finance allocation to manage NCDs and other chronic illnesses (Mokwena, 2014). Patients with MHD often have high rates of comorbid physical illness including cardiovascular disease, obesity and cancers (Hodgson et al., 2011, Hert et al., 2011, Kauer et al., 2013). They often also lead more sedentary lifestyles which may further contribute to the poor physical health (Vancampfort et al., 2015). Physiotherapists are often seen as the experts in physical health and are able to address many of the secondary health problems that are so prevalent in this patient population (Pope, 2009, Andrade et al., 2014, Firth et al., 2016, Lee et al., 2017). However, there appears to be no clear guidance with regard to the role of physiotherapists in the management of patients with MHD as a result of lack of training available at either an undergraduate or postgraduate level. There are currently no clinical guidelines to guide treatment choices. This may be the reason why there is no consensus on what exactly the role of the physiotherapist is, in the management of patients with MHD.

CHAPTER 6

6. CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

6.1 CONCLUSION

This study highlights the perceptions of physiotherapists regarding their role in the management of patients with mental health disorders, as well as identifying barriers and facilitators regarding the management of these patients. The demographic profile of physiotherapists showed that most physiotherapists had less than 5 years' experience working in mental health. Only one physiotherapist worked in a public facility and only one physiotherapists had a postgraduate degree in mindfulness. Physiotherapists in this study were uncertain regarding their role in the management of patients with mental health disorders largely due to a lack of knowledge both at an undergraduate and postgraduate level. The perceived barriers were largely due to an unconducive work environment and the perceived facilitators being a favourable work environment as well as the attributes of the physiotherapist.

6.2 LIMITATIONS OF THE STUDY

This study focussed only on one province in South Africa. Not all physiotherapists working in mental health facilities in Gauteng agreed to participate in the study and as such their valuable input was not able to be collected. Only physiotherapists working in dedicated mental health facilities were invited to participate and this excluded physiotherapists who may treat patients with MHD in their outpatient practices or in other hospital wards and so their input was not collected.

6.2 RECOMMENDATIONS

The following recommendations have emerged from this study:

6.2.1 Clinical:

Advocacy regarding the role of physiotherapy in the management of MHD, to all healthcare professionals involved in the management of patients with MHD, to improve interprofessional collaboration and patients outcomes.

6.2.2 Research:

Future studies in to the exact role of physiotherapists in mental health are needed in order to help develop clinical guidelines.

National studies incorporating larger sample sizes may help in advocating and promoting the role of physiotherapy in mental health.

6.2.3 Education:

Consideration should be given regarding the inclusion of MHD in undergraduate curriculum and postgraduate training. This should include education about MHD as well as psychological treatment strategies such as CBT and mindfulness.

6.3 CONTRIBUTIONS/BENEFITS OF THIS STUDY

This study contributes to the body of knowledge regarding physiotherapy in mental health. There are currently no studies that the author could find regarding physiotherapy in mental health in a South African context. This study may be a starting point for future studies in this field.

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APPENDIX A

PARTICIPATION INFORMATION SHEET

Title of Study
Perceptions of physiotherapists regarding their role in the management of patients with mental health disorders.

My name is Sandy Lord, and I am a student in the Department of Physiotherapy, University of Witwatersrand. Research is just the process to learn the answer to a question. In this study I would like to find out how physiotherapists working in mental health facilities view their role in the management of patients with mental health disorders as well as explore their barriers, facilitators and experiences.

Invitation to participate:
I would like to invite you to participate in the following study which aims to determine the perceived role of the physiotherapist in the management of patients with mental health disorders. There are currently no clinical guidelines regarding physiotherapy in mental health and it is important to establish the current practice and identify barriers and facilitators as a basis of information for the formation of clinical guidelines that could be used by physiotherapists.

What is involved in participating in the study?

Study Design:
This is a qualitative study using in-depth interviews to gather information about the physiotherapist's role in mental health. If you agree to participate you will be required to participate in one interview, lasting approximately one hour. A date, time and venue will be set for the interview that is convenient for you. You will be required to complete a short demographic questionnaire about your qualifications and experience after which an interview will be conducted. The questions are based on personal experience in the field of mental health as well as experts and current literature. I will make notes throughout the interview and an audio recording of the interview will be done. After the interview the audio recording will be transcribed verbatim. During the data analysis if any information that you supplied needs to be checked or verified, I will do so telephonically with you

Risks or Benefits for participating in the study
There are no risks or benefits to participating in this study. You will however be contributing to data and knowledge about the role of physiotherapists in mental health in Gauteng, South Africa. This will hopefully help contribute to developing clinical guidelines in the management of patients with mental health disorders in South Africa

Participation
This study is completely voluntary and you may choose to withdraw from the study, without giving a reason, at any point, at no risk or penalty.

Confidentiality
Your confidentiality will be maintained. A demographic questionnaire will contain your name and contact number but this will be kept separate from your interview at all times. All information will be coded. There is no identifiable data on the audio recording ie name, identification number or date of birth. Audio recordings will be done using an audio recorder. The interview will be downloaded immediately and stored on a password protected cloud. The results will be reported in the research report submitted for examination and in a publication. The raw data will be available to the researcher, research supervisor and transcriber. The data will be stored for minimum of two years following publication and 6 years if there is no publication.

Contact details
For any queries relating to the study, please feel free to contact:

Contact Person	Telephone Number	Email Address
Researcher:		
Sandy Lord	083 264 1804	sandylord@mweb.co.za
Research Supervisors:		
Vaneshveri Naidoo	011 717 3729	Vaneshveri.naidoo@wits.ac.za
Sonti Pilusa	011 717 3715	sonti.pilusa@wits.ac.za

For direct queries, concerns or complaints regarding the ethical activities surrounding this study, the HREC Chair/administrator can be contacted.

HREC Chair		
Prof P Cleaton Jones	011 717 2301	peter.cleaton-jones1@wits.ac.za
Administrative Officers		
Zanele Ndlovu	011 717 2700	zanele.ndlovu@wits.ac.za,
Rhulani Mkansi	011 717 2656	rhulani.mkansi@wits.ac.za
Lebo Moeng	011 717 1252	lebo.moeng@wits.ac.za

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

Regards

Sandy Lord BSc (Physio) WITS

APPENDIX B

GENERAL CONSENT FORM

I, the undersigned, confirm that:

1. I have read and understood the information about the study, as provided in the Participant Information Sheet.

2. I have been given the opportunity to ask questions about the study and my participation.

3. I voluntarily agree to participate in the study.

4. I understand I can withdraw at any time without giving reasons and that I will not be penalised for withdrawing nor will I be questioned on why I have withdrawn.

5. The procedures regarding confidentiality have been clearly explained (use of names, anonymisation of data etc.) to me.

6. The use of data in research, publications, sharing and archiving has been explained to me.

7. I understand that other researchers will have access to the data only if they agree to preserve the confidentiality of data and if they agree to the terms specified in this form.

8. I, along with the researcher, agree to sign and date this informed consent form.

Participant:

Name: _____ Signature:_____

Date:_____

Researcher:

Name: _____ Signature:_____

Date:_____

APPENDIX C

CONSENT FOR AUDIO RECORDING

This study includes an audio recording of your interview with the researcher. Neither your name nor any identifying information will be associated with the audio recording or the transcript. Only the researcher, supervisor and transcriber will be able to listen to the recordings.

By signing this form, I give consent for an audio recording to be done of the interview

Participant:

Name: _____ Signature:_____

Date:_____

Researcher:

Name: _____ Signature:_____

Date:_____

APPENDIX D

DEMOGRAPHIC QUESTIONNAIRE

Name:	
Contact Number:	
Age:	
Sex:	
Private/Public:	
Self Employed/Practice Owner	
Employed by : Private practice/clinic	
Years working as physiotherapist?	
Years working in mental health facility?	
Highest Qualification achieved? BSc, MSc, PhD	
Courses related to mental health eg BBAT, counselling, psychomotor therapy Others: eg national pain course, OMT etc	

APPENDIX E

INTERVIEW GUIDE

1. *Tell me about your work in this area.*

   Probes:
   a) What are the common conditions you are treating?
   b) What treatment modalities do you use?
   c) How do you get your referrals for patients/who refers patients to physiotherapy?
   d) Do you attend multi- disciplinary team meetings – are you a part of the group programme

2. *What are your perceptions regarding physiotherapy in mental health?*

   Probes
   a) Is physiotherapy a necessary part of managing patients with mental health disorders.
   b) What are your experiences working with these patients?
   c) What are the challenges you face in managing patients with mental health disorders?
   d) What makes your role easier to do?

3. *What do you think your main role is in managing patients with mental health problems?*

APPENDIX F

ADDITIONAL QUOTES

Lack of consensus between physiotherapists is indicated by the quotes below:

Participant 7 – "...and some people I've noticed also, they are in a bubble, a little world, they don't even know that they are in a hospital and I feel like if you feed into that bubble that you can get more results....You go along with their story and you get them to do whatever you want to do"

Participant 5 – "So I can't really say, but initially I really struggled. We had patients who were very sleepy; they took too much medication that they got from the psychiatrists. You get good psychiatrists and you get average psychiatrists. And some of the psychiatrists play around with medication. We do not treat sleepy patients, it's a rule. Because we can harm them or they can think we harmed them.....Yes,(we can't treat) patients who aren't intact with reality. We can't because obviously what effect are we going to have on them? The effect that you have on somebody's pain also has to go through his mind; it has to be processed centrally."

Participant 7 –" Myofascials actually flare them up ""
Participant 6- "My most complicate patients I barely touch"

Participant 4 – "Usually those patients that are hypersensitive I work very gently with the first treatment and then when they come in for the second session, they much better, I can work a bit deeper "

Participant 1 – "In my capacity I'm doing more hands on"

Participant 4 - "Myofascial release works nicely "

Participant 5 – "Myofascial techniques of occipital base and of the thoracic and in the thoracic outlets, those three works very well"

The above quotes indicate the perceptions of the participants and also how some of the participants contradicted themselves, offering different views at times.

APPENDIX G

ETHICAL CLEARANCE FORM

R14/49 Mrs Sandy Lord

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M160536

NAME: (Principal Investigator)	Mrs Sandy Lord
DEPARTMENT:	Physiotherapy Private Practice
PROJECT TITLE:	Perceptions of Physiotherapists Regarding their Role in the Management of Patients with Mental Health Disorders
DATE CONSIDERED:	27/05/2016
DECISION:	Approved unconditionally
CONDITIONS:	Title Change(20/07/2016)
SUPERVISOR:	Vaneshveri Naidoo and Sonti Pilusa
APPROVED BY:	Professor P. Cleaton-Jones, Chairperson, HREC (Medical)
DATE OF APPROVAL:	20/07/2016

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office Secretary in Room 10004,10th floor, Senate House/2nd floor, Phillip Tobias Building, Parktown, University of the Witwatersrand. I/We fully understand the the conditions under which I am/we are authorised to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated,from the research protocol as approved, I/we undertake to resubmit to the Committee. I **agree to submit a yearly progress report**. The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. in this case, the study was initially review in May and will therefore be due in the month May each year.

Principal Investigator Signature Date

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

APPENDIX H

PLAGIARISM DECLARATION

UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG

FACULTY OF HEALTH SCIENCES

PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS

SENATE PLAGIARISM POLICY: APPENDIX ONE

I Sandy Lord (Student number: 9902895e) am a student registered for the degree of MSc (Physiotherapy) in the academic year 2018.

I hereby declare the following:

- I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.
- I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.
- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.
- I have included as an appendix a report from "Turnitin" (or other approved plagiarism detection) software indicating the level of plagiarism in my research document.

Signature: Lord Date: 14/3/2018

APPENDIX I

TURN-IT-IN REPORT

Report Final

ORIGINALITY REPORT

15%	12%	8%	5%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	"Encyclopedia of Pain", Springer Nature, 2013 Publication	<1%
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3	espace.curtin.edu.au Internet Source	<1%
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17	Stubbs, Brendon, Andy Soundy, Michel Probst, Marc De Hert, Amber De Herdt, and Davy Vancampfort. "Understanding the role of physiotherapists in schizophrenia: an international perspective from members of the International Organisation of Physical Therapists in Mental Health (IOPTMH)", Journal of Mental Health, 2014. Publication	<1%
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DEPARTMENT:	Physiotherapy Private Practice
PROJECT TITLE:	Perceptions of Physiotherapists Regarding their Role in the Management of Patients with Mental Health Disorders
DATE CONSIDERED:	27/05/2016
DECISION:	Approved unconditionally
CONDITIONS:	Title Change(20/07/2016)
SUPERVISOR:	Vaneshveri Naidoo and Sonti Pilusa
APPROVED BY:	Professor P. Cleaton-Jones, Chairperson, HREC (Medical)
DATE OF APPROVAL:	20/07/2016

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DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office Secretary in Room 10004,10th floor, Senate House/2nd floor, Phillip Tobias Building, Parktown, University of the Witwatersrand. I/We fully understand the the conditions under which I am/we are authorised to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated,from the research protocol as approved, I/we undertake to resubmit to the Committee. **I agree to submit a yearly progress report**. The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. in this case, the study was initially review in May and will therefore be due in the month May each year.

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