ATTITUDES OF UNDERGRADUATE PSYCHOLOGY STUDENTS TOWARDS MENTAL ILLNESS

by

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Declaration

I, Pakama Lugogwana (211111589), hereby declare that the thesis for the Master of Arts in Clinical Psychology is my own work and that it has not previously been submitted for assessment or completion of any postgraduate qualification to another University or for another qualification.

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Date: 01 December 2017
Dedication

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Abstract

Negative attitudes and stigmas against those diagnosed with mental illnesses have been found to prevail in modern society, despite the availability of effective treatments and attempts to educate people about mental health. Numerous studies have been conducted on the attitudes of various groups of people and communities towards mental illness. There is, however, limited research about student populations, particularly students registered for courses in the “allied health professions”. This study aimed to explore and describe the prevailing attitudes towards mental illness of a sample of the undergraduate Psychology student population (registered between 2\textsuperscript{nd} and 4\textsuperscript{th} year of study) within the Faculty of Health Sciences at a South African University. The procedure followed was an electronic intranet based survey, utilising the Community Attitudes to Mental Illness (CAMI) scale. The survey was accessed via the university’s student portal and links were sent via email to students to complete. A total of n=51 student responses were recorded and analysed. Data were quantitatively analysed using t-tests and Analyses of Variance (ANOVA). No statistically significant differences on the CAMI scales were found between the students in relation to the various student demographic variables such as age, gender, race or year level, and the CAMI findings. Overall, the sample of undergraduate Psychology students were shown to have favourable attitudes towards mental illness, which is potentially accounted for by their chosen field of study of Psychology. Education and knowledge about mental health were acknowledged as being most important in reducing stigma towards mental illness.

Key words/concepts: Mental illness, attitudes, students, behavioural health sciences, stigma, Community Attitudes to Mental Illness (CAMI), people living with mental illness.
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Chapter 1 - Introduction

Background of the problem

Mental illness is prevalent on a global scale. Psychiatric disorders are said to account for more than 12% of the global burden of disease (Ganasen et al., 2008). This has been documented in Africa as well. The African continent has dealt with numerous social issues such as genocides, oppression, xenophobia, HIV/AIDS and many others. The residual effects of such phenomena have necessitated urgent psychiatric services across the African continent (Akyeampong, Hill & Kleinman, 2015). Unfortunately, psychiatric and psychological services are scarce in developing countries in the continent. While mental illness is similarly prevalent in developing, and developed countries, mental health care services are deficient and of poor quality in developing nations (Ganasen et al., 2008). This discrepancy in healthcare can be attributed to many factors from scarce financial resources to attitudes and beliefs about mental illness.

Many people act in ways that are discriminatory against those afflicted with mental illnesses—which can be linked to their specific beliefs about mental disorders (Ganasen et al., 2008). Those in need of mental health care themselves may have internalized negative messages about mental illness, hindering them from seeking treatment because of fears related to stigma and discrimination. Many of these attitudes and beliefs can be traced back to religious and cultural belief systems, and has resulted in the stigmatization of people living with mental illness. This occurs with both regular community members as well as with various health and allied practitioners (Herman et al., 2009; Hansson, Jormfeldt, Svedberg & Svensson, 2011; Egbe et al., 2014).

Health practitioners have also been noted as acting in ways that may be interpreted as being discriminatory towards mental health service users (Pitcher, 2013). As previously mentioned, such behaviour may be influenced by personal belief systems and attitudes. Many
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attitude studies have shown the ways in which medical and allied health practitioners hold negative attitudes toward mental illness, despite working in the field (Chow, Kam & Leung, 2007; Hansson et al., 2011; Grant, Hoskins, Gaede, & Horwood, 2012; Basson, Julie & Adejumo, 2014; Maier, Moergeli, Kohler, Carraro & Schnyder, 2015; Al-Awadhi et al., 2017). This has implications for treatment-seeking behaviour for service users, and service delivery for mental health practitioners. Service users may feel less inclined to seek treatment for fear of being stigmatized against, while mental health practitioners may act in ways that are biased against service users.

Existing research has shown similar attitudes among health studies and medical students on a global level (Hugo, Boshoff, Traut, Zungu-Dirwayi & Stein, 2003; Kakuma et al., 2010; Schafer, Wood & Williams, 2011; Korszun, Dinos, Ahmed & Bhui, 2012; Benov et al, 2013). However, there is little in the way of African-based information about the attitudes of mental health practitioners and health students. The research that is there shows high levels of stigmatisation both in African lay communities and in professional settings (Kakumi et al., 2010; Vaughn et al., 2009). Several studies have provided evidence of negative attitudes towards mental illness among practitioners (Egbe et al., 2014; Mohamed-Kaloo & Laher, 2014). Much of this research has demonstrated a link between educational level, mental illness education and the types of attitudes held by individuals in any given community. However, this information is mainly focused on already-practicing practitioners and does not include prospective practitioners who are currently in training.

By investigating students’ attitudes towards mental illness, inferences can be made about the influence of personal background and mental health education at a university level. Therefore, it is important to document the attitudes that undergraduate Psychology students at a South African university have about mental illness, as they are prospective professionals who are likely to work in the field of mental health with a variety of individuals. In the
diverse context of South Africa, students will most likely have different conceptualisations and views of mental illness and people living with mental illnesses.

**Research aim and objectives**

**Aim**

This study proposed to investigate the attitudes held by undergraduate Psychology students at a South African university about mental illness. The aim of this study was to measure and explore undergraduate Psychology students’ attitudes in relation to mental illness as determined by the 4 dimensions of the Community Attitudes towards Mental Illness (CAMI) scale namely: *authoritarianism, benevolence, social restrictiveness and community mental health ideology*.

**Objectives**

The objectives of this research project were as follows:

i. To investigate the overall nature of the attitudes of undergraduate Psychology students towards mental illness.

ii. To determine if attitudes towards mental illness are influenced by the demographic factors of age, gender, level of education, racial group as well as the rural or urban origin of participants.

**Outline of research study**

**Chapter 1-Introduction**

This chapter introduces the research question, problem formulation, aims and objectives of the study. It also outlines the structure of the research paper.

**Chapter 2- Literature Review**
This chapter reviews and discusses existing literature in relation to mental illness and attitudes towards it. Attribution theory is also discussed in this section, with particular emphasis on the role it plays in attitude research.

**Chapter 3- Research Methodology**

The research process and related procedures are outlined in this section. This chapter introduces and explains the research tool as well as data analysis procedures used to analyse raw data. Ethical considerations are noted.

**Chapter 4- Results**

This chapter presents the results and findings of the study. Results are shown in their various formats i.e. table format and open-ended responses.

**Chapter 5- Discussion and Conclusion**

This chapter discusses the findings in relation to attitudes to mental illness and attribution theory. The conclusion of the study is also presented in this chapter.

**Chapter 6- Limitations and Recommendations**

In this chapter, the limitations of the study are presented. Recommendations are also considered in relation to future research.

**Conclusion**

This chapter discussed the research problem and aim of the current study. The objectives of the study were listed as smaller steps towards the bigger research question. Lastly, the outline of the study was given to show the order of the different chapters contained within this document.
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Chapter 2- Literature Review

Introduction

The following chapter will focus on existing literature about mental illness and attitudes related to mental illness. The concepts of attitude and stigma will be explained in detail, followed by a description of mental illness. The next section aims to merge all the above-mentioned concepts to provide a contextual background for the research. Literature about attitudes towards mental illness is reviewed from a global scale down to a national level, with the focus being on healthcare professionals and health studies students. The last section will focus on the theoretical framework to be utilised in explaining these attitudes. Attribution theory will be defined and explained in relation to its role in making sense of mental illness.

Attitudes

There are several definitions offered for the concept of attitudes. Pickens (2005, p.44) in (Borkowski, 2009), defined an attitude as “a state of readiness informed by prior experience which influences an individual’s response to certain objects and situations”. Maio and Haddock (2009) alternatively define attitudes as evaluative judgments about stimuli. These definitions were taken into consideration and a tentative definition was proposed for the purposes of this study, an attitude will be defined as an evaluative position taken by an individual based on specific stimuli.

Sometimes, attitudes are confused with such concepts as beliefs, opinions, values and habits (Oskamp, 1977). Distinctions should be made between the various concepts. Beliefs for example, are described as (mainly cognitive) statements indicating a person’s subjective probability that an object has a particular characteristic. Opinions are more overtly expressed than attitudes and refer to people’s judgements about the likelihood of events or relationships. Values may be described as one’s standard of behaviour; these are normally the end goal as
opposed to the means. Repeated standardised patterns of behaviour are referred to as habits (Oskamp, 1977). Distinguishing between these concepts is important. However, studying these concepts in greater detail can assist in understanding the drives that motivated people to act and react in certain ways.

Oskamp (1977) identified the three main components of attitudes as the cognitive, affective and behavioural elements. This suggests that the development of attitudes is linked to several thinking processes, the emotional reactions that follow and ultimately how these influence future behaviour (Oskamp & Schultz, 2014). The thoughts and feelings an individual has about certain issues, can manifest in their behaviour.

Maio and Haddock (2009) referred to three other aspects of attitude- content, structure and function. Content refers to the information involved in attitude formation. This is the information that the individual receives about a specific stimulus. Structure relates to the organisation of the various attitude components, such as the cognitive and behavioural aspects. Function refers to the uses and importance of attitudes (Maio & Haddock, 2009). These factors are important in understanding the relevance of attitudes.

Attitudes are important because they help explain the causes of people’s behaviour and their level of consistency. According to Oskamp and Schultz (2014) attitudes are reflective of people’s perceptions of themselves and the world, and serve multiple purposes such as aiding in thinking, decision-making and ultimately making appropriate choices. Similarly, Maio and Haddock (2009) suggested that attitudes significantly influence behaviour based on the domain of the behaviour, the function of the attitude, the strength of the attitude, the person and the situation. This process is also mediated and influenced by factors innate to the person such as their beliefs and values.
Mental Illness

The Diagnostic Statistical Manual for Mental Disorders-5 (DSM-5) defines mental disorders as “syndromes characterised by clinically significant disturbance in an individual’s cognition, emotion regulation, or behaviour that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning” (American Psychiatric Association, 2013, p.20). A mental disorder typically causes significant distress and it distinctly does not include culturally appropriate practices (APA, 2013). The diagnosis of a psychological disorder requires the exhibition of behaviour that is deemed to be outside of the normal range; such behaviour would be disruptive to the development and adaptation of that specific individual in the context of that specific culture; such behaviour would be noted as causing personal suffering (Austin et al., 2012).

It is estimated that 30% of the global population has a mental disorder, with two thirds of this population not getting appropriate treatment (Monteiro, 2015). According to the World Health Organisation (2016), 1 in 4 individuals will be afflicted with a mental illness or a neurological disorder in their lifetime. Over 450 million (estimated) individuals are dealing with a mental illness (World Health Organisation, 2003).

This makes mental illness one of the leading causes of ill-health and poor quality of life, and these conditions are known to have far-reaching consequence for those afflicted with mental illnesses and those close to them.

Effects of mental illness

Mental illness is increasingly being recognised as a significant cause of morbidity (Kabir, Iliyasu, Abubakar & Aliyu, 2004). Individuals are becoming more aware of the damage of having a mental illness diagnosis. Awareness is also increasing with regards to the prevalence of mental and behavioural disorders. People are also taking cognisance of the universality of mental illness which can be attributed to the development of awareness
programmes and anti-stigma campaigns. However, the exact impact of such anti-stigma programmes remains relatively unknown at this stage (Hansson et al., 2011).

Mental health is a key component of overall health. A diagnosis of mental illness presents individuals with very specific challenges. The symptoms of mental illness can give rise to many problems for those afflicted with mental disorders (Corrigan, 2003). In fact, such is the impact of mental illness, that it can place major strain on the economic state of a country and influence the political structure thereof (Monteiro, 2015). The impact of mental illness is widespread and can be detrimental to those affected by psychiatric disorders. Mental illness sufferers are often marginalised and face many difficulties including unemployment, poverty, denied access to housing and ill-treatment from family and friends (Kakuma et al., 2010). These factors may make sufferers vulnerable to other secondary problematic phenomena such as substance abuse and criminal activity, which further compounds their social isolation and discrimination.

Any strides made in the area of mental health can be linked to progress on other health indicators. Prioritising mental health care can go a long way in eradicating other social ills and this recognition has led to strides in healthcare, particularly in developed countries such as the decentralisation of mental healthcare services, greater provision of these services and further development of rehabilitative (Monteiro, 2015). Global mental health is a subfield of global health that is concerned with the worldwide prevalence of mental illness, the impact of mental illness on quality of life and development outcomes, and the social and other determinants of mental health (Monteiro, 2015, pp. 80). Evidently, mental health is one of the core tenets for health and wellbeing in other areas.

**Mental illness in Africa**

In Africa, mental illness remains a silent epidemic. Despite this, mental illness is said to account for approximately 5% of the disease burden and accounts for 19% of all disability
in Africa (Monteiro, 2015). There are specific challenges that make it difficult to eradicate mental illnesses such as lack of clear mental health policy, poor health infrastructure, insufficient number of trained specialists, lack of evidence-based and culturally relevant assessments and treatments (Monteiro, 2015). Mental illness in Africa also exists within socio-political-cultural structures, which are the basis of traditional explanatory frameworks of mental illness. Socioeconomic status is closely related to an increased susceptibility to the development of mental disorders. Factors such as poverty, social inequality, war and conflict, urbanisation and migration are not necessarily unique to Africa but have a significant impact on the health of many African populations (Monteiro, 2015). In fact, mental health care services and provision are highly influenced by economic inequality in developing countries (Ganasen et al., 2008). Many African countries deal with poor mental health services provision despite having a complex relationship with mental illness.

One such African country is South Africa, which has a long and volatile history with mental illness and psychiatric care. The history of mental illness as a known entity in South Africa dates as far back as the 1600s. Historically, mentally ill individuals were accommodated in primitive structures and isolated from the mainstream population (Gillis, 2012; Sukeri, Betancourt & Emsley, 2014). Many were also housed in military barracks and jails. Over time, there was a gradual move to placement in general hospitals (Gilllis, 2012). This resulted in an overflow in general hospitals due to the accommodation of physically ill and mentally ill individuals. Treatment or therapeutic interventions did not necessarily exist; the focus being on controlling disruptive behaviour and ensuring individuals’ safety. People living with mental disorders remained socially and physically isolated, with them continually being labelled as ‘lunatics’, among other derogatory names. Living conditions were terrible and effective psychiatric diagnosis did not exist until the 1900s. Due to the country’s political
climate at the time, there were obvious disparities in healthcare based on racial differences (Sukeri et al., 2014).

It was only in the beginning of the 20th century, where the first psychiatric hospitals were developed in South Africa; facilities that were strictly for those with mental disorders (Gillis, 2012). Even in these institutions, there were many problems in the delivery of mental healthcare especially pertaining to the different races. The development of mental institutions was characterised by racial segregation - apartheid infiltrated the healthcare system (Sukeri et al., 2014). It would take years before the issues of racism and segregation in psychiatric hospitals would be addressed (Sukeri et al., 2014). Since then, many changes have been made such as the decentralisation of mental healthcare, an emphasis on multidisciplinary teams, the development of outpatient psychiatric clinics and a focus on social and community services (Gillis, 2012). Much of this was undertaken to address the constant surplus of psychiatric patients in both general and psychiatric hospitals. Currently, there exist numerous institutions across South Africa that accommodate people living with mental illness. Healthcare is increasingly being decentralised and there is an increase in the development of mental health awareness programmes.

Despite this, South Africa is still known to have a high incidence of mental illness. According to Jack et al. (2014, pp.1), “1 in 3 South Africans will suffer from a mental disorder in their lifetime”. Additionally, Raimonde (2016) reported that approximately 25% of general practitioners’ patients suffer from psychiatric conditions rather than general medical conditions. The South African Stress and Health study conducted in 2003-2004 found that just under a third of South Africans have (or will in their lifetime) a mental disorder (Herman et al., 2009). There remains a discrepancy between the amount of people diagnosed with mental disorders, and the quality of healthcare services available for them (Sukeri et al., 2014). This is especially prevalent in the developing world. This presents
service users with unique challenges and has led to various investigations about the etiology of mental illness.

**The causes of mental illness**

The causes of mental illness are known to be multifactorial and complex. Often what may lead to mental illness, can also be a consequence of it. Thus, the causes and consequences of mental illness are intertwined and cyclical in nature. There is a move towards recognizing psychosocial factors alongside biomedical origins of mental illness. For example, Stein et al. (2008) listed racial discrimination, gender inequality and poverty, as some of the stressors which may make South African people vulnerable to the development of mental illnesses. There is an especially high incidence of psychiatric disorders among those from lower socioeconomic communities. South Africa’s socio-political history has resulted in discrepancies in the socioeconomic situation of the various ethnic groups, and a higher socioeconomic status may serve as a buffer against stressors that may result in mental illness. Murali and Femi (2004) also assert that there is a strong link between socioeconomic class and psychiatric disorders in South Africa. Poverty has far-reaching consequences for mental illness and the provision of mental health care, and creates a vicious cycle which exacerbates both conditions (Ganasen et al., 2008).

On a microsystemic level, Sorsdahl, Mall, Stein and Joska (2010) noted that many South African populations cited psychosocial stress as one of the main causes of mental health problems, over and above biological causes. Additionally, South Africa is known to have a high incidence of HIV and AIDS. Co-morbidity between HIV and AIDS, and mental disorders is quite high (Sorsdahl et al., 2010). This co-morbidity often results in a lower quality of life and other health-related outcomes. Although this is not unique to the African context, this fatal co-morbidity is more prevalent in developing African countries.
Mental health care services and treatment

Mental health services are influenced by the knowledge and belief systems tied to them. That is, the type of service provided by health practitioners is dependent on their specific beliefs and attitudes. In turn, these beliefs influence the provision of treatment and patients’ beliefs about effective treatment (Ganasen et al., 2008). In South Africa, healthcare is modelled against the biomedical approach but is also entwined with various cultural beliefs and systems. Beliefs about superstitions and supernatural causes are common in many non-Western countries like South Africa, and may influence the type of treatment provided and sought (Ganasen et al., 2008). For example, healthcare professionals in South Africa, many of which are biomedically trained, deal with culture-related illnesses frequently and are expected to operate within this regional cultural context (Grant et al., 2012). Traditional healthcare is concerned with a range of traditional healing practices and procedures. It usually incorporates physical, psychological, social and spiritual factors. Within this framework, it is widely believed that certain illnesses and ailments are culture-bound (Grant et al., 2012). According to traditional African belief systems, mental health and/or subsequent mental illnesses have ancestral origins (Sorsdahl et al., 2009). Traditional healers are subsequently often called upon to divine and provide traditional herbal medicine to African populations in order to cure ailments and illnesses in lieu of Western medicine. While these practices were historically easily accessible and effective over time, they have been gradually replaced by the biomedical approach to a significant extent.

Still, the biomedical approach forms the basis for the training of healthcare practitioners in South Africa and on a global level. Within the biomedical model and framework, mental disorders are believed to be brain diseases that are a result of neurotransmitter dysregulations and brain defects (Deacon, 2013). Accordingly, pharmacological treatment is foremost in treating mental disorders. The approach takes a somewhat reductionist, piecemeal approach with regards to diagnosis to the exclusion of
other factors (i.e. psychological, social, spiritual) that are not biological in nature and this has led to numerous criticisms being leveraged against the approach (Deacon, 2013).

While the biomedical model has been predominantly presented as the most effective model, traditional African health systems have still proven to be relevant. There has been an increase in efforts to integrate traditional African medicine and Western medicine. Currently healthcare in South Africa relies on this co-model orientation, with both models being used interchangeably (Grant et al., 2012). Certainly, this dual-model situation presents healthcare practitioners and patients alike, with challenges unique to this local context.

In South Africa, general practitioners who have very basic training in mental illness often find themselves having to provide mental health services to patients on a regular basis. Many of these healthcare practitioners are often found of having negative attitudes towards people living with mental illness either due to their beliefs or the lack of information about certain illnesses. In addition to this, mental healthcare professionals have been found to be the least optimistic with regards to prognosis of people living with mental illnesses (Egbe et al., 2014). They may treat service users and clients oftentimes but may be pessimistic about the outcomes of such treatment due to their personal perceptions. These health practitioner negative attitudes are likely to impact on their service delivery. While this phenomenon may be linked to personal attributes, much of it can also be linked to mental health literacy. Jorm et al. (1997) in Jorm (2000) defined mental health literacy as the “knowledge and beliefs about mental disorders which aid their recognition, management and prevention”. Ganasen et al. (2008) noted that mental health illiteracy does not only refer to the lack of (or minimal) knowledge about mental illness, but may also mean that knowledge and beliefs may be derived from other sources such as superstitions and cultural beliefs. This does not mean that traditional cultural beliefs are inappropriate for conceptualizing mental illness. However, they
may hinder and limit other treatment strategies if they are touted as the only appropriate approach.

Schierenbeck, Johansson, Andersson and Rooyen (2013) identified approximately 11 barriers to the enjoyment of the right to health for people with mental disabilities. They grouped these into 4 categories in terms of availability, accessibility, acceptability and quality. Important subcategories here were stigmatisation, lack of resources, and traditional cultural beliefs of both community members and staff. Personal beliefs have the capacity to interfere with treatment interventions and effectiveness. According to Egbe et al. (2014) it is important that healthcare facilities and practitioners are impartial and value-free while retaining the tenets of beneficence. While this is appropriate for professional populations, it may not always be relevant in collectivistic, traditional populations.

**Stigma**

There are 4 key components to stigma- a socially selected human difference is labeled, leading to the association between the label and a specific stereotype (which is often negative). This then leads to the distinction between in-groups and out-groups, with members of the out-group being perceived negatively. This stereotyping and resultant stigma, may lead to discrimination (Phelan & Basow, 2007). Ganesh (2011) supports this argument and goes further on to say stigma is comprised of three main problems namely ignorance, prejudice and discrimination.

Stigma is known to be comprised of existing knowledge structures which are viewed as representing the public’s negative perceptions of people with mental illness (Corrigan, 2000). It has been argued that these perceptions and accompanying stereotypes are useful for categorising information about social groups. However, in most instances, stereotyping can be harmful to the social group it is targeted towards, such as those individuals living with mental illness. The relationship is two-fold. Erroneous perceptions and stereotypes tend to
perpetuate stigmatized attitudes and discriminatory behaviour. In turn, stigmatized attitudes encourage erroneous generalisations and stereotypes. Stigma has been known to have disastrous effects on the individuals/groups at which it is targeted. At times, it may even have fatal consequences for those being discriminated against.

**Stigma and mental illness**

According to the stigma model, a label of mental illness often elicits negative attitudes, especially with regards to perceptions of dangerousness and unpredictability (Phelan & Basow, 2007). The second factor associated with stigma is the process of stereotyping. Stereotypes have a negative influence on tolerance to mental illness and to those suffering from mental illness. Such stereotypes may result in ‘tangible consequences’ that impact on the daily lives of those living with mental illnesses (Phelan & Basow, 2007). The third factor of the stigma model refers to social dominance orientation, which is the natural desire to distinguish between in-groups and out-groups. Typically, out-groups are perceived negatively which may be driven by strict adherence to often erroneous stereotypes. Mentally ill individuals often fall in this out-group category, facing specific challenges and discrimination by virtue of their various diagnoses. It then becomes a matter of ‘us’ versus ‘them’ with those with mental illness being treated as outcasts. Monteiro (2014) presents an alternative stigma model, referring to three other factors of stigma. Stereotypes are representative of the public’s social knowledge about mental illness, prejudice relates to the cognitive and emotional responses elicited and discrimination refers to the behavioural response to prejudice (Monteiro, 2014). The aforementioned factors work together systematically to further perpetuate stigmatised attitudes about various issues but more so about mental illness. According to Corrigan (2000), there are three paradigms that can assist in explaining the high prevalence of stigma, namely sociocultural perspectives, motivational biases and social cognitive theories. The sociocultural perspectives paradigm says that
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Negative stereotypes about mental illnesses are perpetuated in different ways. For example, Boeh (2009) described how media coverage could be one possible source of mental illness stigma perpetuation. People living with mental illnesses are typically portrayed as being violent and dangerous in many fictional television shows. Those who watch these shows, are likely to believe whatever is portrayed about mental illnesses if there is no evidence to the contrary. These beliefs may lead to the formation of negative, erroneous stereotypes that are linked to prejudice and discrimination. Maier et al. (2015) identified 4 stereotypes linked to negative attitudes towards mental illness, namely dangerousness, incompetency, parasitism and one’s own fault. Dismissive behaviour has been linked to perceived dangerousness and the attribution of responsibility (Maier et al., 2015). This means that there is a belief that individuals living with mental illness are dangerous in nature and should be held accountable for their disorders-the development thereof as well as the perpetuation of such disorders.

Stigma towards mental illness is widespread, particularly in developing countries and continents. The inflated prevalence of mental illness in developing countries is attributed to the disparities in the health systems in these countries i.e. poor infrastructure, lack of suitable professionals and pervasive stigmatised attitudes (Monteiro, 2014). Receiving a diagnosis of a mental disorder is difficult in and of itself. However societal reactions to mental illness can elicit stigmatisation and discrimination which can further impair an individual’s functioning (Corrigan, 2000). Stigma is known to inhibit treatment-seeking behaviour (Ganesh, 2011). Stigmatisation has been associated with a reluctance to seek and adhere to treatment by mental health service users. Individuals may shy away from seeking treatment due to others’
perceptions of mental illness and inversely, them as individuals. They also found that individuals may experience fear in associating with mentally ill individuals (Ganesh, 2011).

Stigma is not necessarily externally-focused. Research shows that individuals living with mental illness themselves are capable of being prejudiced against mental illness (Herman et al., 2009; Boeh, 2009; Corrigan & Rao, 2012). Some may feel exceedingly uncomfortable with the diagnosis of mental illness and choose to hide the diagnosis from significant others. Corrigan and Rao (2012) noted this discomfort as self-stigma and define it as the internalization of perceived public stigma. According to Boeh (2009) self-stigma originates from public stigma. Individuals are influenced by the level of public stigma experienced. The process may occur in 3 steps. People living with mental illnesses initially have to agree with public opinion. The next step involves the development of self-concurrence, through which the individual internalises the general opinion. Such internalised beliefs may lead to low self-esteem within the individual.

There are many factors that influence the above-mentioned dynamics. A factor often associated with mental illness stigma is the type of mental health problem observed. Some research indicates that mental disorders with a psychotic basis are discriminated against more than primarily affective mental disorders. Other literature argues to the contrary, stating that affective mental disorders are viewed as being within the individual’s control and thus garnering less support than ‘medically-based’ psychotic disorders (Boeh, 2009). Specific mental illnesses are viewed in a negative light than others. This impacts the level of tolerance about mental illness. Individuals’ specific personality traits may also influence the level of tolerance for mental illness. Sociobiological factors such as gender and age also plays a role in attitude formation. Although research is contradictory to this end, much of the literature indicates that females tend to have more empathy for individuals living with mental illness (Ewalds-Kvist, Hogberg & Lutzen, 2012). Age as a factor, has also been noted to result in
negative attitudes in those who are of an older age (Jang, Chiriboga & Okazaki, 2010). Contact with, and knowledge about, mental illness has been associated with a decrease in negative stereotypes about mental illness and decreased desire for social distance (Couture & Penn, 2003; Ross & Goldner, 2009; Morris et al., 2011).

Phelan and Basow (2007) found that labeling is associated with negative stereotyping. However, it is not inherently negative, particularly when this label is an accurate description. Familiarity with someone with a mental illness was found to have a weak link with benevolent perceptions towards mental illness. This finding was explained in relation to contact— the type of contact encountered influences the positive or negative attitude outcomes (Phelan & Basow, 2007). If an individual experienced a negative interaction with someone with mental illness, the type of experience they report with mental illness may end up being influenced by the contact they had with this single individual. In other words, this seemingly isolated incident may be generalised to the overall population, no matter how erroneous it may be. There are also signals that may lead to stigma, which Chaudoir, Earnshaw and Andel (2013) divide into discredited and discreditable. Discredited signals refer to people with apparent and visible traits who believe that they are different from others. Discreditable signals on the other hand, refer to people who can hide their condition which means that their condition is not overt or visible (Chaudoir et al., 2013). Mental illness falls under the category of discreditable signals as it is not overt like physical illnesses. The idea is that for signals which are overt, it is relatively easy for others to make sense of them. However covert signals give way to various beliefs about origins and causes, many of which may be erroneous. This is potentially harmful for those individuals who suffer from mental illness who are then perceived in a sinister light.

Stigma affects not only the individuals at which it is targeted, but the broader community. The perpetuation of stigma is not restricted to lay individuals but has been found
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to be prevalent in well trained professionals from mental health disciplines (Corrigan, 2002). Narks and Kechi (2011) claim that the stigmatisation of mental illness affects mental health care users in various ways. For mental health users, stigma has been linked to poor self-esteem, poor social adjustment, poor quality of life, compromised personal relationships and may hinder efforts to access care (Barke, Nyarko & Kechi, 2011).

Being that mental illness stigma is so prevalent, multiple efforts have been made on a global scale to eradicate it. Mental illness stigma reduction is a priority for many education and health departments. According to Monteiro (2014), there are 3 main ways that have been employed to reduce stigma: 1) protest, 2) education and 3) contact. Thus far, education and contact have proven to be the most effective in the way of stigma reduction strategies. Research indicates that they have significantly improved attributions about mental illness, as opposed to protest strategies (Monteiro, 2014).

South Africa has increasingly been involved in the process of stigma reduction. At the end of apartheid, the new South African government formulated a policy framework in the hope of developing better and more appropriate health care services to the broader community. Public mental health care was prioritised under an integrated primary health care system (Herman et al., 2009). Research about mental health and disorders was conducted to aid in the achievement of this specific primary health goal. One such study was the South African Stress and Health Study (SASH), which was instrumental in documenting the state of common mental disorders in South Africa in the early post-apartheid years. Various findings were published from the study which assisted in informing many current primary health care policies. Although the findings have been continually critiqued, the study provided much-needed discussions about the state of South Africa’s mental health care system. Since then, no other study has been conducted which has reached this level of publication and there appears to be a need for further research to this effect.
The studies mentioned above highlight the conditions surrounding mental illness. More importantly, findings provide an idea of possible areas of intervention where attitudes, knowledge and contact are concerned with regards to mental illness.

**Attitudes towards mental illness**

Despite advances in professional and public understanding and awareness about mental health, mental health care users continue to experience stigmatised attitudes. Negative attitudes have not changed much over time (Hansson et al., 2011). This is despite the fact that there is an increase in mental illness knowledge. Such attitudes are not restricted to members of the public but may also be found amongst mental health care professionals (Berkelman, 2003). Negative stereotypes about mental illness are pervasive in many cultures and have strong historical roots (Todor, 2013). This has resulted in a myriad of opposing views about mental illness from health practitioner populations and lay populations alike. In turn, this has necessitated the simplification of these many views by grouping opinions about mental illness into specific schools of thought.

Pitcher (2013) discussed 4 predominant discourses about mental illness. Pitcher (2013) reported on how the biomedical perspective, also known as a discourse, views mental illness as having an organic basis. On the other hand, the psychodynamic discourse describes mental illness in terms of psychological processes (unconscious conflicts). The romantic discourse presents an idealistic view of mental illness. Within this framework, the belief is that mental illness is not as prevalent in non-Western societies. The final discourse discussed is the discourse of dangerousness, which refers to mental illness in terms of criminality and dangerousness (Pitcher, 2013). In South Africa, it is widely believed that people living with mental illnesses are dangerous and unpredictable. This is perhaps the most pervasive, and damaging view of those living with mental illnesses. Pitcher (2013) opined that the importance of analysing discourse in Psychology, particularly in South Africa, is pertinent in
changing the ways in which the issue of mental illness is addressed. It has been widely observed that the language used in relating to mental illness is problematic and serves to perpetuate stigma. The victim or aggressor positions are also often ascribed to people living with mental illnesses due to the nature of their illnesses. This warrants the need for a new discourse.

The scourge of mental illness is so great, that mental health disabilities have been rated more negatively than physical health disabilities (Corrigan et al., 2000). According to Ganesen et al. (2008), this has contributed to the high presentation of somatic complaints in areas where there is poor mental health literacy.

As previously mentioned, people living with mental illness often have to deal with more than the symptomology of the disorder that they have been diagnosed with. They also have to contend with the social reactions associated with the given diagnosis (Chung, Chen and Liu (2001). Smith and Cashwell (2011) also noted the potential damage caused by stigmatised attitudes towards mental illness. Other people’s attitudes and reactions directly influence the lives of those living with mental illness. For this reason and others, the broader community is being recognised as a valuable tool in the prevention and treatment of mental illness. Therefore, the attitudes and behaviour of the community have the capacity to determine the level of help-seeking behaviours (Kabir et al., 2004). If communities are responsive and react in positive ways, individuals who have been diagnosed with mental illness may feel at ease with disclosing and complying with treatment.

**Health practitioners’ attitudes towards mental illness**

Health practitioners often come from these very same communities. Likewise, health practitioners’ attitudes towards mental illness have been found to be determinants of the quality of mental health care (Poreddi, Pashupu, Badamath & Badamath, 2014). Health practitioners work first-hand with mental health users. The role of health practitioners is
arguably bigger than that of any other profession in the lives of mental health users. These practitioners influence and impact on the lives of users. Their attitudes and behaviour can determine treatment-seeking behaviours and compliance rates for users.

Maier et al. (2015) noted that investigating the attitudes of mental health practitioners is not only important for treatment outcomes but also for opinion formation in lay people. If mental health practitioners display encouraging and empathic attitudes towards people living with mental illnesses, people that are not health practitioners may also be influenced in a similar direction through the spread of knowledge about mental illness. They may also start to mirror positive behaviour exhibited by practitioners towards those with mental illness.

In the effort to investigate these attitudes, numerous studies on attitudes towards mental illness have been conducted with clinicians and college and university students worldwide. Findings here indicate that both students and clinicians alike hold stigmatised beliefs and opinions about those with mental health problems (Chung et al., 2001; Mavundla, Poggenpoel & Gmeiner, 2001; Hugo et al., 2003; Kakuma et al., 2010; Morris et al., 2011; Schafer et al., 2011; Smith and Cashwell, 2011; Korszun et al., 2012; Benov et al., 2013; Basson et al., 2014; Poreddi et al., 2014). The findings, however, vary, with some research indicating that health care practitioners demonstrate more benevolent attitudes than other professionals (Song, Chang, Shih, Lin & Yang, 2005), while other research does not support this (Korszun et al., 2012).

**Factors attributed to health practitioners’ attitudes**

Much of the literature conducted to investigate the attitudes of health practitioners has also hypothesised about the causes. Again, findings vary to this end. Causes have been attributed to demographic factors such as educational level, physical environment, socio-political climates, religious-cultural beliefs and individual factors. Maier et al. (2015) conducted a study with mental health professionals, investigating their attitudes towards
patients with Post Traumatic Stress Disorder (PTSD) and Depression. The results showed that both diagnoses elicited positive attitudes, which were linked to the factors of older age and more work experience. Benov et al. (2013) added to this and noted that stigmatisation is dependent upon diagnosis and the manifestation of symptoms. They also found that the severity of the symptoms of a mental disorder determined the level of social distance sought by people who do not have mental illnesses (Song et al., 2005). In their study, Siti Zubaidah and Norfazilah (2014) discovered that individuals have positive attitudes towards mental illness. They deduced demographic factors as being related to attitude formation such as race and education. However not all demographic factors were noted to be related to attitude formation.

The factors of level of knowledge and education appear to be more pervasive than any other factors, but with conflicting findings. Ganasen et al. (2008) also discussed the effects of mental health literacy as a determinant of attitudes to mental illness. Mental health literacy is defined as the knowledge and beliefs about mental disorders which aid the recognition, management and prevention thereof (Ganasen et al., 2008). Literature consistently shows a link between the level of knowledge and beliefs people have about mental disorders, and their attitudes towards mental illness.

Mavundla et al. (2001) and Gureje, Lasebikan, Ephraim-Oluwanuga, Olley, and Kola (2005) attributed the negative attitudes of South African professionals towards mental illness to poor education and knowledge. They also noted that this resulted in the loss of humaneness of the patients. Song et al. (2005) explained that people with a reasonable amount of knowledge about mental illness tend to hold more discriminatory attitudes about mental illness than those with less, while Ross and Goldner (2009) suggested that knowledge and education may not necessarily lead to positive attitudes towards people living with mental illness. Angermeyer, Holzinger and Matschinger (2009) also noted this supposed relationship
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between mental health literacy and attitudes towards mental illness but they argued that mental health literacy does not always improve attitudes towards mental illness. In fact, they explained that many times, there is no relationship between these variables. Matthews, Rhoden-Salmon, Silvera, Waite and Barton-Goode (2016) also supported this notion. Similarly, Crisp, Gelder, Rix, Meltzer and Rowlands (2000) asserted that stigmatising attitudes are not always related to level of knowledge or contact. They asserted that individuals’ knowledge of mental health conditions does not alter their attitudes towards mental illness.

Still, some argue that increased knowledge and education about mental illness can improve negative attitudes by reducing fear and stigma (Morris et al., 2011). Ganasen et al. (2008) stressed the importance of literacy in the mental health literacy context. The ability to read and write, and to comprehend reading material which contains content related to mental health issues, can go a long way. Low literacy levels in people with mental illness can have implications for treatment seeking. Mental health care service users may not be able to communicate effectively with health professionals, or understand the advantages of adhering to their treatment (Ganasen et al., 2008). Inversely, Ganasen et al. (2008) also observed the low mental health literacy levels in many primary health workers and mental health practitioners. The relationship between improved health literacy and improved mental health outcomes was noted.

Still, Stuart (2008) argues that there is very little correlation between increased knowledge and contact, and behavioural change. Gyllensten et al. (2011) studied the effects of naturalistic educational interventions on attitudes towards mental illness among a group of healthcare students from 6 different universities. After being taught specific curricula, results indicated that students expressed less fear about mental illness and increased acceptance. This result was indicative of the phenomenon that increased knowledge leads to positive attitudes
towards mental illness. However, this study focused on only one factor, which is education as a determinant of change in attitudes. It did not account for other possible variables.

Similarly, Todor (2013) conducted a study in Romania with 150 university students from different departments, attempting to assess their attitudes towards mental illness. The rationale was that identifying these beliefs would provide a scope for the development of anti-stigma programmes. Students without mental health studies incorporated into their courses tended to have more negative attitudes, less compassion and a desire for greater social distance.

Smith and Cashwell (2011) also investigated this phenomenon and compared the social distance desirability of mental health students, non-mental health students, mental health professionals and non-mental health professionals. Findings indicated that both mental health trainees and mental health professionals required considerably less social distance in comparison to the non-mental health groups. Furthermore, they contend that social distance desirability and generalized attitudes towards mental illness are interlinked. That is, the greater social distance is sought from individuals with mental illnesses, the more negative attitudes towards mental illness. Lastly, with gender as a factor, it was noted that females tend to seek less social distance and are more tolerated as sufferers of mental illness than their male counterparts. However, females have also been found to hold specific ideas about people with mental illness i.e. that they are more dangerous (Smith & Cashwell, 2011).

Likewise, Sathynath, Mendonsa, Thattil, Chandran and Karkal (2016) conducted a study in South India and found that stigmatizing attitudes towards mentally ill individuals were highly prevalent among medical students and professionals. Both faculty members and postgraduate students were found to have stigmatizing attitudes, however, faculty members reported slightly more favourable attitudes than students. The variable, personal
Acquaintance, was associated with less socially restrictive attitudes towards mental illness (Sathyanath et al., 2016).

Contact and familiarity are often mentioned in relation to attitudes towards mental illness research. Findings indicate that familiarity with mental illness may reduce discriminatory responses (Corrigan et al., 2003). Increased contact may also improve negative attitudes by desensitising people to mental illness. According to Monteiro (2014), contact with individuals with mental illness works to reduce stigma through cognitive individuation, which refers to the process of replacing a negative stereotype after a positive encounter with a person living with a mental illness. Furthermore, contact makes an even bigger impact when participants are equal in status (Monteiro, 2014).

Empathy has also been found to influence stigma. Research indicates that empathy can positively influence attitudes towards mental illness. In addition, emotional change has a longer lasting impact than cognitive change (Monteiro, 2014). Angermeyer, Matschinger and Corrigan (2003) investigated the relationship between familiarity with mental illness and stigmatizing attitudes about mental illness. They hypothesised that people with less exposure to mental illness would hold more perceptions of dangerousness about those who are mentally ill. These perceptions of dangerousness would induce fear, thereby increasing the desire for social distance.

**African health practitioners’ attitudes towards mental illness**

As previously mentioned, numerous studies have been conducted in Africa on the attitudes of the public towards people with mental illness. In general, these studies found the general public to exhibit negative attitudes towards those living with mental illness (Hugo et al., 2003; Kakuma et al., 2010; Schafer et al., 2011; Omoaregba, James, Igbinowahnia & Akhiwu, 2015). In African countries, just like in other countries, the factor of education was repeatedly mentioned as impacting on mental illness attitudes. Poor knowledge about mental
illness has been linked to people having negative attitudes towards mental illness and people living with mental illness (Benedicto, Mndeme, Mwakagile & Mwansisya, 2016). Studies in Nigeria, Botswana, Tanzania and Malawi have made direct links to this concept with regards to negative community attitudes (Monteiro, 2014; Omoaregba et al., 2015). This lack of knowledge has been attributed to limited knowledge about advances in diagnoses and treatment.

Omoaregba et al. (2015) attributed negative attitudes to poor knowledge and education about mental illness in a Nigerian population. Various studies indicated that those who were literate were more likely to have positive feelings towards mental illness (Angermeyer et al., 2003) while other studies indicated the opposite (Girma et al., 2013). Barke et al. (2011) found that higher levels of education were associated with more benevolent attitudes. It can be said that while education impacts people’s attitudes towards mental illness in various ways, it is subject to other factors that mediate these relationships (Girma et al., 2013). To illustrate, Monteiro (2014) conducted a study with undergraduate students in Botswana after teaching Psychopathology to the group. Overall, the results of the study indicated that teaching psychopathology helps to reduce stigma. Students demonstrated an increased awareness, understanding and appreciation of the multidimensional nature of mental illness. Increased sensitisation, empathy, tolerance and self-awareness were also highlighted as critical issues that were common in the students’ responses. Monteiro’s study also highlighted that there were other factors to consider, which include but are not restricted to the type of content taught, the method of teaching, the intensity of the course and a subjective/objective didactic approach (Monteiro, 2014).

**Attitudes towards mental illness in South Africa**

In South Africa, research is increasingly focusing on the prevalence of mental illness as well as the role of culture in mental health i.e. traditional healers and traditional healing
Attitudes of undergraduate Psychology students towards mental illness (Mohamed-Kaloo & Laher, 2014). Culture influences mental illness in the terms of the experience of symptoms, beliefs about causation as well as the type of treatment sought. People from diverse cultural backgrounds make different attributions of illness, health and treatment. African populations are more likely to attribute illness to spiritual causes than physical causes (Vaughn, Jacquez & Baker, 2009).

Many South African cultures contain specific beliefs about mental illness in relation to supernatural, moralistic and religious doctrines. From a group of South African health practitioners, Mohamed-Kaloo & Laher (2014) noted the following themes of 1) understanding and causation, 2) stigma, secrecy and stigmatisation, 3) Effects of religion in treatment, 4) perceptions of spiritual illness, 5) collaboration with traditional healers, 6) collaboration with psychologists and psychiatrists. Based on these themes, it is evident that there is a wide scope of issues to address. This indicates an urgent need to explore mental illness in South Africa beyond the biopsychosocial components, and to also incorporate the religious and spiritual components. This would include that of practitioners who work in this field.

Existing South African based research indicates high levels of stigmatisation occurring both in communities, as well as among health care practitioners who work (directly and indirectly) with mental illness sufferers (Kakuma et al., 2010). There are several studies which have been conducted in South Africa on this phenomenon. Beukes (2014) conducted a study with general assistants from 4 psychiatric hospitals in South Africa. The results showed positive attitudes from the general assistants, but many of them reported that they found their working environments to be stressful. A lack of adequate mental health literacy was mentioned as a possible mediating factor in this study and a recommendation was made to improve mental health education in South Africa.
Basheer (1998) studied the attitudes of community psychiatric nurses, mental health professionals and primary healthcare nurses in Durban. The aim was to investigate their attitudes to mental illness, mentally ill people and deinstitutionalization. Respondents were found to hold rather neutral attitudes to mental illness and people living with mental illnesses. However, all 3 groups held negative attitudes about the implementation of deinstitutionalization within the South African context. It was noted as a surprising finding that even though many of the professional groups had some working experience, they did not exhibit positive attitudes towards people living with mental illnesses.

Mavundla et al. (2001) noted poor professional attitudes towards mental illness, which they attributed to poor education and the refusal of some professionals to acknowledge patients in a humane manner. Basson et al. (2014) reported similar findings on a study on professional nurses’ attitudes, but noted that the level of education did not have a significant effect on attitudes. Findings from the SASH study revealed that stigmatisation and self-stigma were quite common in relation to mental illnesses (Herman et al., 2009).

Egbe et al. (2014) explored the experiences of service users and healthcare professionals in relation to stigma in South Africa. They also investigated the causes of stigma as well as the impact thereof. They reported overall negative attitudes from both service users and practitioners. They also noted the negative effects of stigma and discrimination on people living with mental illnesses i.e. low self-esteem and unemployment.

Currently there are not many student ‘attitudes to mental illness’ studies in South Africa. Blaise (2015) noted the importance of understanding young adults’ knowledge and attitudes about mental illness and people living with mental illnesses. Pitcher (2013) investigated the discourses of students about mental illness. The aim was to explore the discourses predominantly used by Psychology students in relation to mental illness. The study showed that many participants drew from the biomedical and romantic (idealistic)
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discourses. Both discourses emanate from a Western biomedical approach. This speaks to the nature of many students’ tertiary training, which influences how students later work as practitioners.

**Theoretical Framework-Attribution theory**

Corrigan (2000) defines attribution theory as a framework for understanding human motivation and emotion, based on the assumption that individuals search for specific causes of everyday events. Attributions can be described as causal explanations which are used to understand the world (Bignall, Jacquez & Vaughn, 2015). The theory is concerned with how people make sense of the world and how they attribute certain characteristics to themselves, others and situations and how they behave in accordance with this (Malle, 2011). Attribution theory also demonstrates how a particular event can lead to an attribution, leading to an emotion and eventually to a behavioural response (Stuart, 2008). The focus is on how individuals interpret others’ behaviours by making use of attributions and inferences about that person’s behaviour.

There is no singular theory of Attribution but rather the collaboration of various approaches. Fritz Heider is known as the main proponent of attribution theory (Boeh, 2009). However, Cajee (2005) mentioned 3 authors who have contributed significantly to existing attribution literature (in addition to Heider), Jones and Davis (1965) and Kelley (1967). While all four authors took distinct perspectives to attribution theory, the overlapping theme amongst all relates to the investigation of the motives behind people’s behaviour and thoughts (Cajee, 2005).

There are various beliefs about the origins and causes of attributions. Causal attributions refer to those attributions deemed to be directly linked to the onset of a specific condition. Causal attributions which have received the most attention are the controllability and stability of an individual’s behaviour (Boeh, 2009). Stability refers to “the temporal
nature of cause” while controllability refers to the amount of influence an individual has over a cause (Corrigan, 2000). Causal attributions are taken into greater consideration when they are viewed as stable and unchanging. Causal attributions especially have the capacity to influence people’s behaviour.

Extensive research has been done utilising attribution theory as the backdrop. The aim of attribution research is to understand the variables that influence the attribution-making process. This is especially the case if the behaviour is strange or unexpected, which can be said to be the case with mental illness (Boeh, 2009). According to Griffin (2006) the attribution process can be described as a three-step process. These steps are drawn from the three questions of 1) was action observed? 2) Was action intended? and 3) was action coerced? The first step refers to the perception of action, followed by judgement of intention which leads to the last step, the attribution of disposition (Griffin, 2006).

Attributes are an important part of the attribution process and are varied. Some attributes are visible and observable, while others are not (Boeh, 2009). Internal attributions assume that a person is behaving a certain way because of certain innate characteristics (Malle, 2011). External attributions infer that a person’s behaviour is driven by external factors or circumstances. People tend to make more internal attributions for other people’s negative behaviour while attributing external factors for their own negative behaviour (Malle, 2011). This is also known as the correspondence bias and influences much of people’s reactions towards others (Bignall et al., 2015).

**Attribution theory and mental illness**

Causal attributions lead to specific beliefs about how responsible sufferers of mental illness are for their illnesses. These beliefs then lead to specific reactions such as avoidance and segregation by those not living with mental illness (Corrigan et al., 2003).
According to Corrigan et al. (2003), behaviour is influenced by a cognitive-affective process. In relation to mental illness, people make attributions about the cause and controllability of a person’s illness and make inferences about responsibility. This may then lead to emotional reactions that influence the likelihood of helping or punishing (Corrigan, 2003). Bignall et al. (2015) referred to health attributions, which are causal beliefs pertaining to health, which are formed via cognitive representations about health and illness. For example, if an individual becomes ill and attributes this to medical problems, they are more inclined to consult with a doctor. However, if one attributes physical ailments to paranormal origins, they are more likely to consult with spiritual and traditional healers. In this way, individuals are motivated to act in a certain direction because of their attributions and beliefs.

Mental health attributions are beliefs about the origins of mental illness (Bignall et al., 2015). It is a common belief that people living with mental illnesses are to blame for their mental illnesses. This is seen in the prevalence of stigma and discrimination in many communities. According to the attribution theory, negative beliefs about mental illness stem from the assumption that those with mental illnesses have internal characteristics which those without mental illness, do not have. As previously mentioned, people are more inclined to attribute their own pathology to external factors, while laying ‘personal blame’ on other people in the same position (Boysen & Vogel, 2008). This is in line with the attribution theory’s internal attributions. There is a belief that mental illnesses are more personally controllable than medical conditions (Zwickert & Rieger, 2013). Those who have particularly strong beliefs about mental illness are more likely to blame those afflicted by mental illness for their symptoms (Stuart, 2008). Such beliefs give rise to labels, which are given to individuals living with mental illness, which has the consequence of isolating them from the rest of the population.
It is worth noting however that specific attitudes do not necessarily lead to specific behaviours. There are many other factors that influence whether or not people act on their beliefs and attitudes. According to Corrigan (2000) research which has focused on attitudinal dimensions has commonly found 2 dimensions: 1) People tended to understand illness in terms of its severity and 2) illness was understood in terms of controllability. It also depends what kind of illness is being observed. For example, research has consistently shown that people have more benevolent attitudes towards those living with physical illnesses than those living with mental illnesses (Zwikert & Rieger, 2013). This stems largely from the biomedical approach, where precedence is given to physical health over psychological wellbeing in treatment interventions (Deacon, 2013). Even those afflicted with mental disorders describe them in medical terms or present with somatic complaints. Also mentioned in prior sections, culture plays a role in mental health conceptualisations and the attributions given to it.

Although there has been a marked improvement in the past few decades with regards to the general public’s understanding of mental illness, many people still gravitate towards avoidance of people living with mental illnesses. These opinions and attitudes are not restricted to the general public. Research has shown that even individuals that have close contact with those living with mental illness, tend to have negative attributions towards mental illness. This includes families and healthcare practitioners (Peterson, 2005; Kakuma et al., 2010). Hansson et al (2011) conducted a cross-sectional study about attitudes towards mental illness between psychiatric patients and staff from various outlets i.e. inpatients and outpatients. Negative attitudes were more prevalent among staff members. The implications of such attitudes were linked to treatment and staff-patient interactions. Surprisingly, similar attitudes were found in the patients. This finding relates to the internalisation of negative public stereotypes about mental illness by patients, which is known as self-stigma (Boeh,
This phenomenon is similar to the internal attributions, where innate characteristics are prioritized above external influences. Individuals are more inclined to lay blame on themselves if others do the same. Hansson et al. (2011) attributed associative stigma or ‘stigma by proxy’ as a possible reason for the negative attitudes held by staff members. Often psychiatric populations are of a lower socioeconomic status and staff may feel that working with such a population makes them less valued than other practitioners that do not work with psychiatric populations. Staff members who worked with primarily psychotic populations reported less favourable attitudes (Hansson et al., 2011).

Similarly, Crabb et al. (2012) conducted a study attitudes towards mental illness among patients and mental health carers in Malawi. They discovered that both groups attributed mental disorder to substance abuse, brain disease, spirit possession and psychological trauma. The attributions of substance abuse and spirit possession are viewed negatively as personal failings on the part of the afflicted individual (internal attributions). However, the attributions of brain disease and psychological trauma are viewed in a more positive light because they are deemed as being outside of the individual’s control (external attributions).

According to Ikwuka, Galbraith and Nyatanga (2013), addressing various causal attributions has the potential to increase benevolent attitudes and beliefs towards mental illness and people living with mental illnesses. This can be done by explaining mental illness under the framework of a biological and psychological basis. Perspectives vary on this however, with some research showing the opposite to be true. It has been noted that physical problems are perceived as being uncontrollable, garnering more empathy and understanding. On the other hand, psychological problems are viewed as being within the individual’s control, which often elicits an unsympathetic response (Boeh, 2009). It has also been shown that placing mental illness within the framework of a biological disease can have adverse
effects. It has been shown to induce a greater desire for social distance as well beliefs about excessive dangerousness (Boeh, 2009). Overall, perspectives and attributions differ on the causes of mental illness.

With these different perspectives in mind, it should be noted that the way in which psychiatric and psychological issues are expressed is dependent on contextual factors such as culture and language (Smit, van den Berg, Bekker, Seedat & Stein, 2006). As previously mentioned, diverse cultural perspectives present certain challenges in the delivery of treatment interventions. Cultural beliefs influence the development of health schemas (Bignall et al., 2015). Consequently, individuals from diverse cultural backgrounds have different attributions about health and illness (Vaughn, Jacquez & Baker, 2009).

For health practitioners, these cultural differences in health attributions can have serious implications because attributions influence behaviour. For example, mental health attributions have been found to influence the type and level of healthcare services delivered by practitioners (Bignall et al., 2015). According to Vaughn et al. (2009), African patients are more inclined to expect health practitioners to provide spiritual explanations as to why they have certain ailments. While some mental health attribution can be negative, they can also be positive. For example, African-based health practitioners tend to focus on the mind-body-soul connection as opposed to just the physical component (Vaughn et al., 2009). Investigating and understanding these mental health attributions can provide further insights into the attitudes that accompany behaviour in health practitioner populations.

**Measuring mental illness stigma**

Mental illness has been studied extensively measured worldwide over a long period of time. Knowledge, perceptions and attitudes to mental illness have been the focus of many of these studies, conducted on both individuals as well as group populations at a given time. Various measures exist which tap into different constructs related to mental health and mental
illness. In fact, the area of mental health has some of the oldest psychometric tools, most of which focus on stigma (Boyle, 2014).

There are various measures available to measure stigma and prejudice against mental illness. As such, many were considered for the purposes of this study, such as the Opinions about Mental Illness (OMI) scale and the Attitudes to Measure Illness Questionnaire (AMIQ). Ultimately, it was noted that a scale such as the Community Attitude towards the Mentally Ill scale (CAMI) assesses respondent stereotypes and prejudices in dimensions such as authoritarianism, benevolence and social restrictiveness. It was deemed to be the most suitable tool for this study. The CAMI has been extensively used to investigate the attitudes of health professionals towards people living with mental illness. In the early 1960s Cohen and Struening (1962) developed the Opinions about Mental Illness (OMI) scale. In later years, it emerged that the OMI failed to address issues such as deinstitutionalisation and community-centred treatment (Yang & Link, 2015). To address this, Taylor and Dear (1981) used parts of the OMI and created the Community Attitudes to Mental Illness (CAMI) scale which included a new community mental health ideology dimension. Taylor and Dear (1981) noted the existence of several scales dedicated to measuring professional attitudes towards mental illness but very few that also focused on community attitudes. To overcome this, the CAMI, which incorporates parts of the Opinions about Mental Illness scale (Cohen & Struening, 1962) as well as parts of the Community Mental Health Ideology questionnaire was developed (Baker & Schulberg, 1967).

Both scales were modified and adapted to make them suitable for use with community populations as neither had originally been used for that specific purpose. The CAMI makes use of interval measurement in the form of Likert-type scaling. The questionnaire is structured with positively and negatively worded statements, with possible responses ranging from strongly agree to strongly disagree. The item pool is comprised of 40 items consisting of
4 different scales, namely authoritarianism, benevolence, social restrictiveness and community mental health ideology. Authoritarianism refers to the perception that those with mental illness are inferior to non-mentally ill individuals. Benevolence is the paternalistic and sympathetic view of people with mental illness (Taylor & Dear, 1981 p.227). Social restrictiveness is the view that people with mental illnesses are dangerous and should be isolated from the rest of society. Lastly, community mental health ideology refers to “the acceptance of mental health services and mentally ill patients in the community” (Ngirababyeyi, 2012, p.16).

Taylor and Dear (1981) conducted 2 pre-tests to assess the reliability and validity of the new scale in Toronto. The results from both pre-test samples met satisfactory levels of reliability with alpha coefficients higher than .50. They then used the full Toronto data set of 1090 to assess reliability and validity, which they confirmed for all 4 dimensions of the scale. The scales of Authoritarianism and Social Restrictiveness are associated with more negative attitudes, while Benevolence and Community Mental Health Ideology scales are related to more positive attitudes (Smith & Cashwell, 2011). Over time, the CAMI has proven to be a valid and reliable tool to measure stigma in relation to the 4 factors.

**Conclusion**

This chapter introduced the concepts of mental illness and attitudes. The two concepts were integrated and attitudes towards mental illness was discussed in detail, both on a global and a local level. Literature was reviewed which presented the contrasting arguments in the field. Attribution theory was delineated as the theoretical framework for this study together with its relevance to the literature on mental illness attitudes and opinions. Cross cultural perspectives in this regard were considered, as well an outline of test or measurement adaptation for contemporary research in different cultural contexts.
Chapter 3- Research Methodology

Introduction

This chapter describes and details the research methodology utilized in this study. The method of data collection and sampling, specifying inclusion and exclusion criteria, are outlined together with the data collection tool or measure. The main research question, and ethical considerations are explained. The research process is also discussed in this chapter. Finally, the data analysis is tentatively discussed and explained.

Method

The study primarily made use of a quantitative research approach in the form of a survey questionnaire that was administered in an online format to the participants. Additional to the structured standardised survey questionnaire an optional open-ended statement was included to provide participants the opportunity to add or state any further comments and queries they have about mental illness. This option formed the qualitative element of the study.

Data collection can either be quantitative or qualitative, or both (Kumar, 2011). Quantitative research focuses on converting data into numerical values for statistical analyses purposes. An advantage of quantitative research is that numbers are easy to collect, code and analyse. Quantitative research allows for the accessing of a larger sample and it is also time-effective (Neuman, 2011). A possible disadvantage of quantitative research is that it does not provide deeper interpretations and explanations for phenomena (Dunn, 1999). Quantitative research can also be rigid and limiting in that it mainly addresses very specific questions but does not provide causal explanations (Neuman, 2011).

Qualitative data, on the other hand, provides depth and causal explanations to research findings. It is mostly utilized in the attempt to understand facts and results (Dunn, 1999). Advantages of the qualitative approach include the depth of analysis about the data obtained
as well as its focus on providing and explaining causal relationships (Neuman, 2011). It is mostly concerned with the ‘how’ of results, and not necessarily the ‘what’. Quantitative and qualitative approaches should not be viewed as being opposite to one another, but rather as falling on the same continuum. Both approaches have considerable strengths and weaknesses. To strengthen the validity of their findings, some researchers make use of both approaches, which is a process called triangulation (Dunn, 1999).

In this study, there is a quantitative component in the form of the standardised CAMI questionnaire as well as a qualitative component comprising of an open-ended question in the last section of the survey, where participants can comment on any additional thoughts and ideas that they may have regarding the attitudes of Psychology students towards mental illness. However, this study did not use a formal method of triangulation. The focus was on the questionnaire, which provided standardised quantitative data. The qualitative section in this instance was included to provide respondents the option of further discussion.

**Surveys**

Surveys are described as methods of collecting information from a sample of a broader target group. This process usually involves a researcher interviewing a specific sample by means of telephonic, internet or face to face interviews. One of the applications of surveys is to measure attitudes and knowledge.

There are several types of surveys with the main ones being descriptive and longitudinal. Descriptive surveys aim to study populations and establish associations between variables, while longitudinal surveys explore cause and effect relationships over different points in time (Bowling, 1999). Descriptive surveys are generally the preferred survey type as they measure certain phenomena such as attitudes and behaviour retrospectively, whereas longitudinal surveys require a longer period to gather data with a prospective data focus (Bowling, 1999).
The aim of survey research is to measure attitudes, behaviour and knowledge. This is often done via questionnaire research, which involves investigating people’s thoughts and ideas about various topics (Neuman, 2011). Questionnaires are structured as a set of questions which pertain to the same topic or issues (Dunn, 1999). Questionnaires are commonly used for attitude research; they are utilised to assess people’s feelings about objects, events or people (Salkind, 2000). Questionnaires are advantageous for use due to the anonymity they offer and how inexpensive they are. However, questionnaires also present with specific challenges such as a low response rate and the lack of opportunity to clarify issues (Kumar, 2011). This is particularly the case for online questionnaires and surveys.

There are different types of measurement scales used to elicit people’s attitudes about specific issues and to measure the intensity of respondent’s attitudes towards various aspects of a situation (Kumar, 2011). Likert scales are the most popular in relation to attitude research. According to Salkind (2000) Likert scales are developed as follows:

1) Statements are written that express opinions about a specific scenario, object or person

2) Items are shown to have positive and negative values

3) The statements are listed using a 5-point scale

A Likert scale was deemed most appropriate for this study to describe the attitudes of the chosen sample. Responses were noted on a 5-point scale with values from 1 to 5. Each numerical value is linked to a specific response type between Strongly Agree= 1 to Strongly Disagree=5. The survey used in this study was in an internet-based format. The author of this research paper adapted the survey from a regular pencil and paper survey into an online survey. As previously mentioned, Internet based surveys are advantageous because they are fast and inexpensive (Neuman, 2011). However, their relative ease of administration makes
Attitudes of undergraduate Psychology students towards mental illness

them a less reliable source of collecting data. They are also restricted to populations that have access to technological gadgets as well as internet access (Neuman, 2011).

The standardized questionnaire selected for this study, the CAMI, utilises a Likert scale. It should be noted that, as was discussed previously, that the downside to this kind of questionnaire is that it does not provide depth of analysis nor is the extent and reasons for the obtained results explained. This is part of the reason for the inclusion of the open-ended section as a third part of the survey.

**Psychometric tests in SA context**

Psychometric tests are increasingly being used in psychiatric contexts to assist in formulation and the development of treatment interventions. These instruments are often presented cross-culturally, which can also be problematic if not addressed appropriately. Cross-cultural adaptation refers to the process of removing any cultural biases in instruments to make them as culturally-equivalent as possible (Smit et al., 2006). It is nearly impossible to achieve complete cultural-equivalence for a psychometric instrument, however, there are certain measures that can be taken to ensure that instruments are as relevant as possible.

Similarly, test adaptation refers to the process of changing certain aspects of a measure to make it appropriate to use in a specific context, while retaining the same language (Foxcroft & Roodt, 2009). Test adaptation is especially important in a multicultural country like South Africa in order to reach appropriate levels of reliability and validity (Foxcroft & Roodt, 2009). For the current study, complete test adaptation was not necessary as the measure is sufficiently culturally appropriate. Instead, the researcher changed certain words to make the test more appropriate to the South African context for example ‘dollar’ to ‘rand’. The CAMI was developed in the United States and contains items that make use of American English, which necessitated these changes.
Psychological assessments have typically been administered in paper and pencil format. Historically this was the norm. However, recent technological advances have made it possible for the assessment process to occur without the face to face component. Assessments are increasingly being conducted on online platforms, which has changed the testing process in many ways (Foxcroft & Roodt, 2009). Computer-based tests are administered and scored with a computer. Similarly, Internet based tests are administered and scored via the worldwide web (Foxcroft & Roodt, 2009). Gregory (2007) listed several advantages of utilizing these systems such as the efficiency of designing tests, more accurate test scores and ease of administration via the internet. Other advantages include the standardization of instructions, lower administration time and fewer people needed to administer. Disadvantages include socio-cultural and linguistic factors, lack of exposure to technological devices and possible logistical complications with computer programmes (Foxcroft & Roodt, 2009). Notably, especially in the South African context, not everyone has access to computers and/or the internet. This poses a challenge in terms of reaching certain populations.

The CAMI was traditionally designed as a pencil and paper test and has acquired administrative success in this format. For the purposes of this study, the researcher adapted the CAMI to an online survey for several reasons. Initially, it was planned to get as big a sample as possible. The distribution of the survey through the NMMU student portal email system made it easier to reach a wider sample. Relative anonymity was also guaranteed in this way, with participants having submitted their responses without the submission of any identifying details about them. Lastly, the data collection process was standardised in relation to instruction and administration.

**Measure**

A short demographic questionnaire was developed to obtain relevant demographic details from the participants (See Appendix E). Participants were requested to specify their
Attitudes of undergraduate Psychology students towards mental illness

age, gender, language, race, educational level, type of study and whether they were of rural or urban origin. This information was required to investigate and compare the differences, if any, between the different groups on the measure utilised in the study, which was the CAMI.

The CAMI has been widely cited in more than 500 publications. It has a global appeal, having been utilized in various countries with various population groups. It has been used on general communities (Kabir et al., 2004; Benedicto et al., 2016; Siti Zubaidah & Norfazilah, 2014), police officers (Omoaregba et al., 2015), college students (Telles-Correia, Gama-Marques, Gramaca & Sampaio, 2015) and healthcare practitioners (Al-Awadhi et al., 2017). It has proven to be effective in the measurement of attitudes towards mental illness and it is easily accessible.

The CAMI was chosen for this study because it has been proven to be a valid and useful measure. It has previously been used with non-English speaking populations. It has also been used with a certain level of consistency to allow for comparisons across studies (Morris et al., 2011). No special permissions were necessary for utilizing the CAMI because it is publicly available for use.

While the CAMI has consistently been shown to be a useful tool there are certain disadvantages attached to it. The measure was developed in 1981, which means it is approximately 36 years old and it is now bordering on being outdated. Secondly, the CAMI was originally developed for Canadian community attitudes, not necessarily professional populations. Studies have also questioned the validity of the original CAMI scale, citing cultural and environmental sensitivities as the reason for modifications (Morris et al., 2011). Lastly, a study that conducted further factor analyses of the CAMI showed that the initial four-factor analysis found by Taylor and Dear (1981) was erroneous. Wolff, Pathare, Craig, and Leff (1996)’s factor analysis produced a three-factor solution comprising only 20 of the 40 CAMI items (Morris et al., 2011).
Despite these noted drawbacks, the CAMI was deemed to be an appropriate and useful measure for the purpose of the study provided it could be adapted for the local context and an internet based delivery and administration. The CAMI is readily available on the internet for downloading, but not for computer based administration. It has been cited extensively in literature. It has also been used extensively globally and with various kinds of populations. It is valid, reliable and simple to administer. The test items are somewhat culture-sensitive and can be applied to various contexts without extensive adaptation. The CAMI is relatively short and quick to administer and can also be shortened further without difficulty.

Due to this ease of use and accessibility, the CAMI has been used globally. In South Africa, the CAMI has not been extensively utilised as not much research has been conducted about people’s attitudes towards mental illness. In this country Sorsdahl et al. (2010) used the CAMI to investigate the attitudes of people living with HIV and AIDS towards mental illness. They noted that higher scores on the subscales equated to more stigma towards mentally ill individuals. For scoring purposes, this study reverse coded the scores of negative items so that lower scores indicate more favorable attitudes.

For the purposes of this study the CAMI was deemed suitable because of its ease of access and administration. Additionally, the factors measured by the CAMI are relevant to the topic of the current study. There was not much test adaptation required to make it relevant to the South African context. It was appropriate to use with the student population, who are part of the broader community. The test items were uploaded onto the online Student Portal system on the university intranet and an online survey was developed using CAMI items. Scoring and analysis was conducted by the Unit for Statistical Services at the University.
Sampling

A sample is defined as a representative subset of a population whereas a population refers to the target group to whom the results of a research study will be generalized (Salkind, 2000). Sampling for research is crucial for ensuring that the results can be generalized to the population at large as it may be difficult, if not impossible, to study everyone in a population. The aim therefore is to get the most representative sample possible of the bigger population (Neuman, 2011). If this criterion is not met, then the results of such a study would be deemed as specific to only the sample canvassed at that time meaning that it would be difficult to make conclusions about the target population.

Sampling occurs in different ways and for various reasons. Whichever method is chosen for sampling, the idea is to make the sample as representative as possible of the bigger population. Sampling error which may occur refers to the difference between the sample and the population from which it was taken (Salkind, 2000). The smaller the number of the sampling errors, the smaller the difference between the population and the obtained sample. Chance and other factors can impede the sampling process and this should be taken into consideration when drawing inferences about the population that based on the sample.

The present study made use of non-probability, convenience sampling. Initially, the study was targeted at the School of Behavioural Sciences students, which is comprised of 3 departments- viz. Psychology, Social Development Professions and Environmental Health. Undergraduate students from the all 3 of the departments were approached by means of electronic communication on the university’s intranet and invited to participate in the study. Ultimately, only undergraduate students from the Department of Psychology within the Faculty of Health Sciences at an Eastern Cape, South African university were included in the study due to the low response rates from the students registered in the other departments which made data analysis and generalization to the population at large unreliable. The aim
was to obtain a minimum of 10% respondents from the 2\textsuperscript{nd} to 4\textsuperscript{th} years from the department of Psychology at a South African University.

An additional rationale for choosing this specific sample was that this department’s focus is on psychology and mental health. There is high probability that professionals from this field of study will encounter mental illness in their ultimate professional domains. It was also hypothesized that this population would ultimately be significantly influenced in their professional work by their personal attitudes about mental illness. Investigating this sample would also provide insight into whether demographic factors, contact and mental health knowledge would influence students’ attitudes towards mental illness, especially given the country’s diverse context. Lastly, there are very few South African based studies which have focused on the attitudes that Psychology students have about mental illness as existing studies have tended to focus on community samples (Peterson, 2005; Kabir et al., 2004; Chikomo, 2011; De Sousa, Marques & Curral, 2012; Iheanacho et al., 2016).

**Exclusion Criteria.**

Initially, participants in the study had to be students who were registered as undergraduate candidates (1st year to 4th year, depending on the qualification), and who were actively studying towards a qualification within the School of Behavioural Sciences at the specified university. However, due to very low response rates from the departments of Social Development Professions and Environmental Health, students from these departments were excluded from the data analysis process. This is because it was statistically not feasible to conduct inter-group comparisons with uneven responses from the various departments. Psychology First year students were also excluded from the data analysis process because they also had a very low response rate relative to the numbers enrolled and including them would have skewed the results and affected generalisability.
Inclusion Criteria.

Students had to be undergraduates in their 2nd year to 4th year of study in Psychology. They could be registered in either a full time or part-time capacity. They were also required to be above 18 years of age to participate. Both males and females were included in the survey. Students needed to have intranet access to receive and open the online survey, which was placed on the student portal at the university where they were registered.

Research question

What are the attitudes that undergraduate Psychology students at a South African university have about mental illness?

Ethical considerations

According to Drew, Hardman and Hosp (2007) researchers are obligated to adhere to certain ethics in order to protect human participants. For the purposes of this study, the sample comprised of university students, who are often considered to be a vulnerable group where research is concerned and therefore permission was sought from the Director of the School of Behavioural Sciences, the various Heads of Department from the different departments within the School, the Research Ethics Committee-Human (REC-H), the Faculty of Postgraduate Studies Committee as well as the Deputy Vice Chancellor for Research and Engagement. This ensured that approvals and consents for the proposed research project met all the prescribed ethical requirements (See Appendices A, B, C and D). Ethics approval was granted from the REC-H at NMMU, Ref: [H16-HEA-PSY-032/Approval]. Consent was also granted by the Director of the School of Behavioural Sciences as well as the Head of Department of Psychology.

All potential participants were provided with a covering letter by email which provided detailed information about the study inviting their participation. Informed consent
was implied by virtue of participating in the study (as was stated in the covering letter) and participants were informed of the voluntary nature of their participation as well as the right to withdraw at any point in the study. This was all done electronically. A link was then provided in the email, which took participants to the survey where these parameters were reemphasized. Clicking on, or opening, this link was taken as evidence of participant consent having been given.

The Community Attitudes towards Mental Illness scale (CAMI) was then accessed from an online source. This scale has been modified extensively on a global scale. With there being no copyright issues pertaining to using it, there was no need to obtain permission from the authors of the measure as it is easily available for use by the general public (See Appendix F). A pilot study was successfully conducted to assess the use of this measure as well as the technological aspects of the online survey.

Participants’ information and other gathered data will be stored electronically in a password protected electronic file. This together with hard copies will be securely and confidentially stored by the researcher for up to 5 years. To address any offense and embarrassment experienced by the participants as a result of completing the survey, where noted and necessary, the researcher offered to make appropriate referrals to the Student Counselling Career and Development Centre for debriefing and/or counselling. This was to prevent the risk of the researcher having dual relationships with participants and would provide any needed participant support. After completion of the data collection, there were no participants who indicated any offense or displeasure at having completed the survey.

**Research Process**

After developing an online delivery format, limited items of the CAMI questionnaire were changed or adapted for the South African cultural context. No significant changes were made to the original scale, besides the change of American-based spelling of certain words,
as well as the currency descriptors of ‘Dollar’ to ‘Rand’. The questionnaire items were transferred over to an online survey questionnaire format that was designed through the My World web domain with the assistance of the university’s WebSurvey service.

A pilot study was conducted prior to the official data collection process. A pilot study can be referred to as a smaller version of a full-scale study. It may involve the pre-testing of a specific research tool or method (Teijlingen & Hundley, 2001). This is done by researchers to ensure that possible research pitfalls are avoided or addressed before the full-scale study is carried out. Pilot studies can be conducted for both qualitative and quantitative studies. It must be noted that pilot studies also present with certain limitations such as the risk of contamination as well as inaccurate predictions (Teijlingen & Hundley, 2001). For these reasons, caution was exercised during the pilot of the current study. Assistance was sought from the Psychology Honours class. An email was sent to the group, which contained a preamble, information letter and a link to the online survey. Responses were noted, which was useful for verifying the technological aspects of the online survey. The responses from the Psychology Honours group were recorded and analysed for any problems with administration. Technical issues were noted and amended. The responses from the Honours group were excluded from the results in the actual study as the Psychology Honours class did not form part of the sample. After confirmation of responses and confirmation that all the systems worked appropriately, the pilot responses were deleted.

The CAMI questionnaire was administered by means of an online survey made available to registered students in the School of Behavioural sciences by means of an intranet link. Web Survey is only available for use by students and staff of the university. It is a self-design online questionnaire tool which gives users the power to customise their online surveys for their specific research study. Users can create either external or internal surveys, which operate on different systems. External surveys can be filled in multiple times because
responses are not tracked while internal surveys may only be filled in once and thus require the entry of a respondent’s username to track responses.

The survey for this specific study was divided into 3 parts. Part 1 comprised of demographic details such as age, gender, home language, year level and primary field of study. Part 2 of the survey questionnaire comprised of an ordinal scale and consisted of the 40 CAMI items which were recorded on the Likert-type rating scale design. Respondents were required to indicate their responses based on their level of agreement or disagreement with the indicated statement. The 3rd part of the survey consisted of a section which allowed respondents to indicate any further comments and queries respondents may have had, which they could type out. Upon completion of the survey, responses were recorded and saved.

After administration of the survey was complete, the survey was closed and access was restricted to the creator of the survey. Results were then exported to an Excel spreadsheet. They were subsequently sent for statistical data analysis purposes, which was undertaken by the researcher in collaboration with the university’s Unit for Statistical Services. Negatively stated items were reversed for the purposes of analysis. At this stage, data from the departments of Social Development Professions and Environmental Health was excluded due to the low number of responses.

Data Analysis

The goal of data analysis is to determine whether scientific observations support hypotheses or claims regarding the topic of investigation (Shaughnessy, Zechmeister & Zechmeister, 2000). Data analysis interprets and converts raw data into workable results. Data analysis is known to occur in 3 stages namely 1) getting to know the data, 2) summarising the data and 3) confirming what the data tell us. Prior to these steps, it is imperative to ensure that data was collected appropriately in order to carry out the above-mentioned steps in an organized fashion (Shaughnessy et al., 2000).
The raw data from this study was analysed using the Statistical Package for the Social Sciences 24 (SPSS) and Statistica 13, which are computer software programmes designed to manipulate quantitative data especially for the social sciences (Neuman, 2011). These programmes are advantageous to use as they are effective at organizing data and contain most statistical measures (Neuman, 2011).

To summarise the results, both inferential and descriptive statistics were used. Descriptive statistics are generally used to describe the general data characteristics of a set or distribution of scores (Shaughnessy et al., 2000). They are crucial in familiarizing the researcher with the collected data. The main purpose of such statistics is to organize and summarise data to make sense of it more easily (Minium, Clarke & Coladarci, 1999). Inferential statistics are used to conclude about the population from which the sample was drawn based on the characteristics of the sample (Shaughnessy et al., 2000). This study mainly made use of descriptive statistics to interpret the results, although inferential statistics were included in the results section.

There is an assumption that whatever information is presented by the sample, can be related back to the bigger population on a bigger scale. Sample representativeness is crucial because inferences are drawn about smaller samples in relation to the bigger population. Thus, the key is to select a sample that is very much like the population, while bearing in mind chance factors and errors (Shaughnessy et al., 2000). For final sample of this study, data was initially collected from a bigger group comprising of 3 different departments. However, as a result of the low intranet survey response rate of the other departments, which made it statistically difficult to compare the 3 groups appropriately, it was narrowed down for data analysis purposes to include only undergraduate psychology students.

Demographic data was analysed for frequencies. Items were then analysed for validity, reliability and correlations. Following that, analyses were conducted on the factors
individually as well as in comparison to one another using chi-square tests, t-tests and analysis of variance (ANOVA). Comparisons were made between the different demographic variables along with the 4 factors. Descriptive statistics were subsequently provided once data analysis was completed. The reason for the variation in statistical tests is that different comparisons require different methods of analysis.

A significance level was set at $p<.05$. This means that values at the $p<.05$ level are deemed to be statistically significant and that there is a significant relationship between certain variables (De Winter & Cahusac, 2014). One of the reasons for this specific level is the possible occurrence of Type I and Type II errors. Type I error refers to the rejection of a true null hypothesis (false negative) while Type II error refers to the failure to reject a null hypothesis that is false (Bowling, 1999). If the significance level is set higher than .05, it might result in a Type II error. Inversely, if the significance level is set lower than .05, for example at .01 there is a risk of a Type I error (Neuman, 2011). The aim was to avoid either error, thus a significance level of .05 was set.

To analyse and compare 2 variables, t-tests are normally appropriate for this purpose. The t-test can only be used to measure the differences between 2 means. However, it is not advisable to measure more than 2 means or to do multiple testing with t-tests. According to De Winter and Cahusac (2014) multiple testing increases the risk of Type I error. The more comparisons are made using t-tests, the higher the likelihood of reporting a false negative. Analysis of variance is more useful for comparing multiple means to test a hypothesis (De Winter & Cahusac, 2014). Therefore, both t-tests and ANOVA were used to analyse data and to compare the different groups. Analysed data was recorded and reported in different tables.

**Conclusion**

This chapter outlined and described the research methodology and the method of data collection. The measure was explained as well as the research question and inclusion criteria.
Ethical considerations were discussed in relation to the current study. The research process was discussed and data analysis was explained.
Chapter 4- Results

Introduction

This chapter will focus on the results obtained from the data. Tables will illustrate the findings. Brief explanations will be provided of how the data was analysed to produce the results. Demographic data will be reported on, followed by factor analyses and lastly intra-group comparisons in relation to the 4 factors. Qualitative responses will also be noted in this chapter.

Findings

The primary task of this research study was to investigate the attitudes that undergraduate Psychology students have about mental illness utilizing the CAMI questionnaire. A secondary task was to establish the influence of the demographic factors the 4 CAMI item factors.

Data was collected via a structured online survey which was comprised of 3 sections. The first section consisted of a demographic questionnaire designed to elicit specific demographic information from the sample. The second section was the Likert-type CAMI questionnaire, adapted for online administration, where respondents could indicate their level of agreement or disagreement to the questionnaire items from values 1 to 5. The third section was an optional open-ended comment section where respondents could write out their thoughts and opinions about mental illness.

A sample of 51 undergraduate Psychology students participated in the study. Participants were both male and female respondents selected from 2nd year to 4th year level or study. The aim was to obtain a minimum of 10% of the total number of possible respondents studying in their 2nd to 4th year of registration in the department of Psychology at a South African University. This response rate was surpassed, with an approximate response rate of 15%.
Data was analysed by a statistician using the SPSS 24 and Statistica 13. Statistical significance level was at p<0.05 for chi-square tests, t-tests and ANOVA. The mean, standard deviation and percentages were used in the descriptive analyses. Both descriptive and inferential statistics were used in data analysis and the presentation of final statistical results. An additional open-ended section was included and was optional to respondents. The survey consisted of 3 different sections on an online format. The results thereof will be reported in the following sections.

Section 1- Demographic Characteristics of the Sample

Demographic information was collected from the respondents in the first section of the survey, ranging from age to area of origin. Tables 1 to 7 illustrate these findings below.

**Q1.1- Age.**

Table 1 shows the age of respondent. Approximately 57% of respondents who participated in this study were aged 20 years and above. The remaining 43.1 % were aged between 18 and 20 years.

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>18-20 years</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>20+ years</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>51</td>
</tr>
</tbody>
</table>
Q1.2- Educational Level.

Table 2 shows that with regard to the level of education there were more 3rd year students (47%) than 2nd year students (41%) and 4th year students (12%). It should be noted that there are only 16 registered 4th year students in the overall population, which may have influenced the frequency results.

Table 2

Educational level frequencies

<table>
<thead>
<tr>
<th>Education category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid 2nd year</td>
<td>21</td>
<td>41.2</td>
</tr>
<tr>
<td>3rd year</td>
<td>24</td>
<td>47.1</td>
</tr>
<tr>
<td>4th year</td>
<td>6</td>
<td>11.8</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Q1.3- Gender.

Of the total of 51 respondents, 88% were female while 12% were male. This is shown in Table 3 for the gender category.

Table 3

Gender frequencies

<table>
<thead>
<tr>
<th>Gender category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Male</td>
<td>6</td>
<td>11.8</td>
</tr>
<tr>
<td>Female</td>
<td>45</td>
<td>88.2</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.0</td>
</tr>
</tbody>
</table>
**Q1.4- Race.**

In Table 4 it is shown that with regards to the race category more than half of the respondents (55%) identified themselves as Black, while 33% identified as White and 10% identified as Coloured. The remaining 2% consisted of an “Other” category which was mainly for those who felt that they did not fit into the other specified categories.

Table 4

*Race frequencies*

<table>
<thead>
<tr>
<th>Race category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Black</td>
<td>28</td>
<td>54.9</td>
</tr>
<tr>
<td>Coloured</td>
<td>5</td>
<td>9.8</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>White</td>
<td>17</td>
<td>33.3</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Q1.5- Course registration.**

Only 2 categories of undergraduate programmes were included in the study under the course registration category. There were approximately 94% respondents registered in the Bachelor of Arts in Psychology programme. The remaining 6% was registered in the Bachelor of Psychology programme.

Table 5

*Course Registration frequencies*

<table>
<thead>
<tr>
<th>Course Registration category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid B.A. Psych</td>
<td>48</td>
<td>94.1</td>
</tr>
<tr>
<td>B. (Psych)</td>
<td>3</td>
<td>5.9</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.0</td>
</tr>
</tbody>
</table>
**Q1.6- Home Language.**

The home language category revealed the most variety in terms of sub-categories. In total, 55% of the respondents were African language speakers while 29% were identified as English-speaking. Afrikaans speakers comprised 14% of the sample. The Other category, an alternative category for unlisted languages, determined that only one respondent spoke another home language, which was Portuguese. This comprised only 2% of the sample.

Table 6

*Home Language frequencies*

<table>
<thead>
<tr>
<th>Home Language category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>15</td>
<td>29.4</td>
</tr>
<tr>
<td>IsiXhosa</td>
<td>26</td>
<td>51.0</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>7</td>
<td>13.7</td>
</tr>
<tr>
<td>Sesotho</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Zulu</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Portuguese</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Q1.7- Area of Origin.**

Approximately 69% of the respondents reported urban origins while 31% reported rural origins, as showed in Table 7.

Table 7

*Area of origin frequencies*

<table>
<thead>
<tr>
<th>Area of origin category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>16</td>
<td>31.4</td>
</tr>
<tr>
<td>Urban</td>
<td>35</td>
<td>68.6</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Section 2- Community Attitudes towards Mental Illness Findings

The CAMI item and factor analyses are outlined in this section. Demographic comparison findings are also outlined in this section.

Item Descriptives.

Table 8 details the descriptive statistics for each item that is included in the CAMI. Each item was analysed in relation to the Likert scales of Strongly Disagree up to Strongly Agree. The frequency of these responses was noted and calculated. This resulted in the reporting of the values for the mean, median, the minimum and maximum scores. The item means are shown, with each mean indicating a low, average or high level of agreement in relation to the statements. Each category (Very Low to Very High) is indicative of respondents’ overall level of agreement to each item based on the mean score indicated for that specific item. The higher the score, the higher the level of agreement to the item. The following is used to assist in the interpretation of the means.

The scale of 1 to 5 is divided into equal-length intervals and then given labels as follows:

\[
\begin{align*}
[1.00 - 1.80) & \text{ Very low} \\
[1.80 - 2.60) & \text{ Low} \\
[2.60 - 3.40] & \text{ Average} \\
(3.40 - 4.20] & \text{ High} \\
(4.20 - 5.00] & \text{ Very high}
\end{align*}
\]

Square bracket indicates the limit is included in the interval.

Round bracket indicates the limit is not included in the interval.
### Table 8

**Descriptive Statistics for CAMI items**

<table>
<thead>
<tr>
<th></th>
<th>Valid N</th>
<th>Mean</th>
<th>Med.</th>
<th>Min</th>
<th>Max</th>
<th>S.D.</th>
<th>Skewness</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2_1</td>
<td>51</td>
<td>3.57</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>1.30</td>
<td>-0.55</td>
<td>High</td>
</tr>
<tr>
<td>Q2_2</td>
<td>51</td>
<td>1.80</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>0.98</td>
<td>1.08</td>
<td>Low</td>
</tr>
<tr>
<td>Q2_3</td>
<td>51</td>
<td>2.41</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>1.39</td>
<td>0.84</td>
<td>Low</td>
</tr>
<tr>
<td>Q2_4</td>
<td>51</td>
<td>2.51</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>1.08</td>
<td>0.61</td>
<td>Low</td>
</tr>
<tr>
<td>Q2_5</td>
<td>51</td>
<td>2.33</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>1.44</td>
<td>0.73</td>
<td>Low</td>
</tr>
<tr>
<td>Q2_6</td>
<td>51</td>
<td>4.53</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>0.83</td>
<td>-2.36</td>
<td>Very high</td>
</tr>
<tr>
<td>Q2_7</td>
<td>51</td>
<td>2.47</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>1.22</td>
<td>0.45</td>
<td>Low</td>
</tr>
<tr>
<td>Q2_8</td>
<td>51</td>
<td>4.41</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>0.98</td>
<td>-1.98</td>
<td>Very high</td>
</tr>
<tr>
<td>Q2_9</td>
<td>51</td>
<td>3.37</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>1.34</td>
<td>-0.42</td>
<td>Average</td>
</tr>
<tr>
<td>Q2_10</td>
<td>51</td>
<td>1.45</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>0.70</td>
<td>1.26</td>
<td>Very low</td>
</tr>
<tr>
<td>Q2_11</td>
<td>51</td>
<td>4.29</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>0.97</td>
<td>-1.88</td>
<td>Very high</td>
</tr>
<tr>
<td>Q2_12</td>
<td>51</td>
<td>1.59</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>0.94</td>
<td>1.83</td>
<td>Very low</td>
</tr>
<tr>
<td>Q2_13</td>
<td>51</td>
<td>2.18</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>1.16</td>
<td>0.68</td>
<td>Low</td>
</tr>
<tr>
<td>Q2_14</td>
<td>51</td>
<td>4.67</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>0.79</td>
<td>-3.10</td>
<td>Very high</td>
</tr>
<tr>
<td>Q2_15</td>
<td>51</td>
<td>1.47</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>0.81</td>
<td>1.75</td>
<td>Very low</td>
</tr>
<tr>
<td>Q2_16</td>
<td>51</td>
<td>3.16</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>1.10</td>
<td>-0.42</td>
<td>Average</td>
</tr>
<tr>
<td>Q2_17</td>
<td>51</td>
<td>3.27</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>1.18</td>
<td>-0.41</td>
<td>Average</td>
</tr>
<tr>
<td>Q2_18</td>
<td>51</td>
<td>1.31</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>0.51</td>
<td>1.29</td>
<td>Very low</td>
</tr>
<tr>
<td>Q2_19</td>
<td>51</td>
<td>4.45</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>0.81</td>
<td>-1.26</td>
<td>Very high</td>
</tr>
<tr>
<td>Q2_20</td>
<td>51</td>
<td>1.57</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>0.85</td>
<td>1.38</td>
<td>Very low</td>
</tr>
<tr>
<td>Q2_21</td>
<td>51</td>
<td>1.29</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>0.70</td>
<td>3.50</td>
<td>Very low</td>
</tr>
<tr>
<td>Q2_22</td>
<td>51</td>
<td>4.25</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>1.00</td>
<td>-1.55</td>
<td>Very high</td>
</tr>
</tbody>
</table>
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline
Q2_23 & 51 & 1.96 & 2 & 1 & 5 & 1.02 & 1.03 & Low \\
\hline
Q2_24 & 51 & 4.00 & 4 & 2 & 5 & 0.98 & -0.53 & High \\
\hline
Q2_25 & 51 & 4.69 & 5 & 3 & 5 & 0.62 & -1.83 & Very high \\
\hline
Q2_26 & 51 & 1.98 & 2 & 1 & 5 & 1.05 & 1.12 & Low \\
\hline
Q2_27 & 51 & 4.00 & 4 & 1 & 5 & 1.15 & -1.24 & High \\
\hline
Q2_28 & 51 & 1.88 & 2 & 1 & 5 & 0.89 & 1.13 & Low \\
\hline
Q2_29 & 51 & 3.02 & 3 & 1 & 5 & 1.10 & 0.15 & Average \\
\hline
Q2_30 & 51 & 4.69 & 5 & 1 & 5 & 0.73 & -3.21 & Very high \\
\hline
Q2_31 & 51 & 1.63 & 1 & 1 & 5 & 1.31 & 2.07 & Very low \\
\hline
Q2_32 & 51 & 3.84 & 4 & 1 & 5 & 1.30 & -1.00 & High \\
\hline
Q2_33 & 51 & 4.43 & 5 & 2 & 5 & 0.85 & -1.18 & Very high \\
\hline
Q2_34 & 51 & 1.37 & 1 & 1 & 5 & 0.80 & 2.88 & Very low \\
\hline
Q2_35 & 51 & 3.98 & 4 & 1 & 5 & 1.10 & -1.17 & High \\
\hline
Q2_36 & 51 & 2.00 & 2 & 1 & 5 & 1.02 & 0.82 & Low \\
\hline
Q2_37 & 51 & 1.63 & 1 & 1 & 4 & 0.96 & 1.54 & Very low \\
\hline
Q2_38 & 51 & 4.33 & 5 & 2 & 5 & 0.86 & -1.10 & Very high \\
\hline
Q2_39 & 51 & 3.18 & 3 & 1 & 5 & 1.07 & -0.16 & Average \\
\hline
Q2_40 & 51 & 4.12 & 4 & 1 & 5 & 0.97 & -0.92 & High \\
\hline
\end{tabular}

\textit{Cronbach’s Alpha}

For the current study, all 4 CAMI factors were measured for Cronbach’s Alpha. Table 9 shows the different findings. As can be seen from the table, the scale of Benevolence has the lowest Cronbach Alpha, which is indicative of a lower internal reliability and validity, which was originally noted by the authors of the CAMI. This study confirmed earlier findings that the content validity of the items on this scale are questionable. This was followed by the
factor of Social Restrictiveness, with a value of 0.59. The 2 other factors display relatively good internal consistency.

Table 9

*Cronbach’s Alpha for CAMI factors*

<table>
<thead>
<tr>
<th></th>
<th>Authoritarianism</th>
<th>Soc. Restrict.</th>
<th>Benevolence</th>
<th>CMHI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha</td>
<td>0.61</td>
<td>0.59</td>
<td>0.36</td>
<td>0.70</td>
</tr>
<tr>
<td>Ave. inter-item correlation</td>
<td>0.17</td>
<td>0.17</td>
<td>0.06</td>
<td>0.20</td>
</tr>
</tbody>
</table>

*Note* - Soc. Restrict. = Social Restrictiveness; CMHI= Community Mental Health Ideology.

**CAMI Factors.**

For scoring purposes, certain items were reversed for this purpose to standardise the scoring for interpretation purposes. The scoring system was set up so that lower scores indicative of more positive attitudes while higher scores mean more negative attitudes.

Table 10 shows that overall, all of the factor means fell in the Low category (1.0; 2.6) with mean values ranging between 2.00 and 2.16, with all of them being below a significance level of 3. There was no statistically significant score at the p< 0.05 level. For the factors of Authoritarianism and Social Restrictiveness, a low mean score means lower authoritarian and socially restrictive attitudes. Lower mean scores for the factors of Benevolence and Community Mental Health Ideology mean higher levels of agreement to these factors.

**Key**

[1.00 – 1.80] Very low
[1.80 – 2.60] Low
[2.60 – 3.40] Average
(3.40 – 4.20] High
(4.20 – 5.00] Very High
Table 10

CAMI Factor Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Valid N</th>
<th>Mean</th>
<th>Median</th>
<th>Minimum</th>
<th>Maximum</th>
<th>S.D.</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author</td>
<td>51</td>
<td>2.11</td>
<td>2.10</td>
<td>1.30</td>
<td>3.70</td>
<td>0.52</td>
<td>0.99</td>
</tr>
<tr>
<td>Benev</td>
<td>51</td>
<td>2.00</td>
<td>2.00</td>
<td>1.10</td>
<td>2.80</td>
<td>0.32</td>
<td>-0.10</td>
</tr>
<tr>
<td>SocRestr</td>
<td>51</td>
<td>2.16</td>
<td>2.20</td>
<td>1.40</td>
<td>3.90</td>
<td>0.51</td>
<td>1.08</td>
</tr>
<tr>
<td>ComHlth</td>
<td>51</td>
<td>2.00</td>
<td>1.90</td>
<td>1.20</td>
<td>3.30</td>
<td>0.53</td>
<td>0.59</td>
</tr>
</tbody>
</table>

Note. Author= Authoritarianism; Benev= Benevolence; SocRestr= Social Restrictiveness; ComHlth= Community Mental Health Ideology.

Factor Scores.

The following tables illustrate the results of all 4 CAMI factors based on respondents’ level of agreement and disagreement to each factor. Table 11 shows that for the factor of Authoritarianism, 78.4% of responses indicated agreement to the scale items while 19.6% were neutral. Only 2% indicated disagreement to the scale items.

Table 11

Authoritarianism level of agreement/disagreement

<table>
<thead>
<tr>
<th>Authoritarianism category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Agreement</td>
<td>40</td>
<td>78.4</td>
</tr>
<tr>
<td>Neutral</td>
<td>10</td>
<td>19.6</td>
</tr>
<tr>
<td>Disagreement</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.0</td>
</tr>
</tbody>
</table>
For the factor of Benevolence, the majority of responses indicated agreement (92.2%). Only 7.8% indicated neutral responses, as seen in Table 12.

Table 12

<table>
<thead>
<tr>
<th>Benevolence category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Agreement</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>51</td>
</tr>
</tbody>
</table>

Table 13 shows that over 68.6% of responses indicated agreement to the Social Restrictiveness factor. Nearly 30% reported neutral responses and only 2% reported disagreement.

Table 13

<table>
<thead>
<tr>
<th>Social Restrictiveness category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Agreement</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Disagreement</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>51</td>
</tr>
</tbody>
</table>
Table 14 shows that for the Community Mental Health Ideology factor, the majority of responses were in agreement (76.5%). A total of 23.5% showed neutral responses to the scale items.

Table 14

<table>
<thead>
<tr>
<th>Community Mental Health Ideology (CMHI) level of agreement/disagreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMHI category</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Valid Agreement</td>
</tr>
<tr>
<td>Neutral</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

**Factor Correlations.**

Table 15 highlights the correlation of the CAMI factors to one another. The practical significance of correlation coefficients is as follows:

- Any values of $r < 0.30$ indicate a weak correlation.
- Values where $0.30 < r < 0.50$ are indicative of moderate correlations.
- Any value where $r > 0.50$ is indicative of a strong correlation.

As can be seen in Table 12, all of the factors have moderate to strong correlations with each other.

Table 15

**CAMI Factor Correlations**

<table>
<thead>
<tr>
<th></th>
<th>Author</th>
<th>Benev</th>
<th>SocRestr</th>
<th>ComHlth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benev</td>
<td>0.57</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SocRestr</td>
<td>0.67</td>
<td>0.62</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>ComHlth</td>
<td>0.60</td>
<td>0.45</td>
<td>0.64</td>
<td>1.00</td>
</tr>
</tbody>
</table>
**Age Comparisons.**

An independent-samples t-test was conducted to compare the attitudes of the 2 age groups—those between 18 and 20 years, and those who are above the age of 20, shown in Table 16. No statistically significant difference was found for any of the 4 factors of the CAMI. This is indicative of similar attitudes towards mental illness regardless of one’s age for this specific sample.

Cohen’s d is an effect size measure that indicates the practical significance of a finding. Its interpretation is:

- < 0.50: Small effect size
- 0.50 – 0.79: Medium effect size
- 0.80+: Large effect size

**Table 16**

*Age comparisons using t-tests*

<table>
<thead>
<tr>
<th></th>
<th>Mean 18-20 years</th>
<th>Mean 20+ years</th>
<th>t-value</th>
<th>df</th>
<th>p</th>
<th>Valid N 18-20 years</th>
<th>Valid N 20+ years</th>
<th>SD 18-20 years</th>
<th>SD 20+ years</th>
<th>Cohen’s d</th>
<th>Practical signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Au</td>
<td>1.96</td>
<td>2.32</td>
<td>-0.35</td>
<td>49</td>
<td>0.011</td>
<td>29</td>
<td>22</td>
<td>0.42</td>
<td>0.57</td>
<td>0.74</td>
<td>Medium</td>
</tr>
<tr>
<td>Ben</td>
<td>1.89</td>
<td>2.15</td>
<td>-0.05</td>
<td>49</td>
<td>0.002</td>
<td>29</td>
<td>22</td>
<td>0.30</td>
<td>0.30</td>
<td>0.89</td>
<td>Large</td>
</tr>
<tr>
<td>SR</td>
<td>2.04</td>
<td>2.31</td>
<td>0.34</td>
<td>49</td>
<td>0.054</td>
<td>29</td>
<td>22</td>
<td>0.42</td>
<td>0.58</td>
<td>0.56</td>
<td>Medium</td>
</tr>
</tbody>
</table>
Attitudes of undergraduate Psychology students towards mental illness

<table>
<thead>
<tr>
<th>CMHI</th>
<th>1.93</th>
<th>2.10</th>
<th>-</th>
<th>49</th>
<th>0.253</th>
<th>29</th>
<th>22</th>
<th>0.48</th>
<th>0.59</th>
<th>0.33</th>
<th>Small</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.16</td>
<td></td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Au=Authoritarianism; Ben= Benevolence; SR= Social Restrictiveness; CMHI= Community Mental Health Ideology

_Education comparisons._

One-way ANOVA was conducted to measure the effect of the different Educational levels on the 4 factors of the CAMI. Table 17 illustrates the educational level comparison descriptive statistics. There were no statistically significant differences between group means as determined by one-way ANOVA. This shows that there were no significant differences between the attitudes of 2nd, 3rd and 4th year students about mental illness. This is illustrated in Tables 17 and 18.

Table 17

_Educational level descriptive statistics_

| Edu | Au Mean | N  | SD | Au Mean | N  | SD | Ben Mean | N  | SD | Ben Mean | N  | SD | SR Mean | N  | SD | SR Mean | N  | SD | SR Mean | N  | SD | CMHI Mean | N  | SD | CMHI Mean | N  | SD | CMHI Mean | N  | SD |
|-----|---------|----|----|---------|----|----|----------|----|----|----------|----|----|----------|----|----|----------|----|----|----------|----|----|----------|----|----|----------|----|----|----------|----|----|----------|----|----|
| 2nd year | 2.23 | 21 | 0.51 | 2.07 | 21 | 0.27 | 2.20 | 21 | 0.48 | 1.96 | 21 | 0.52 |
| 3rd year | 2.03 | 24 | 0.56 | 1.99 | 24 | 0.34 | 2.10 | 24 | 0.58 | 2.00 | 24 | 0.53 |
| 4th year | 2.05 | 6  | 0.36 | 1.80 | 6  | 0.39 | 2.27 | 6  | 0.23 | 2.17 | 6  | 0.61 |
| All Groups | 2.11 | 51 | 0.52 | 2.00 | 51 | 0.32 | 2.16 | 51 | 0.51 | 2.00 | 51 | 0.53 |

Note. Edu= Educational level; Au/A= Authoritarianism; Ben/B= Benevolence; SR= Social Restrictiveness; CMHI= Community Mental Health Ideology.
Table 18

*Educational level ANOVA*

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Au</td>
<td>0,91</td>
<td>0,4109</td>
</tr>
<tr>
<td>Ben</td>
<td>1,73</td>
<td>0,1882</td>
</tr>
<tr>
<td>SR</td>
<td>0,36</td>
<td>0,6978</td>
</tr>
<tr>
<td>CMHI</td>
<td>0,36</td>
<td>0,7023</td>
</tr>
</tbody>
</table>

*Note.* Au/A = Authoritarianism; Ben/B = Benevolence; SR = Social Restrictiveness; CMHI= Community Mental Health Ideology; F= F-statistic; p= probability value.

No statistically significant difference (all p-values > 0.05)

**Gender Comparisons.**

An independent-samples t-test was conducted to compare the attitudes towards mental illness of males and females. Table 19 shows the results of the t-test. Again, there was no significant difference between the means of the 4 attitude factors of the CAMI.

Table 19

*Gender comparisons using t-tests*

<table>
<thead>
<tr>
<th>T-tests; Grouping: Gender</th>
<th>Mean</th>
<th>Mean</th>
<th>t-value</th>
<th>df</th>
<th>p</th>
<th>Valid N</th>
<th>Valid N</th>
<th>SD</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Au</td>
<td>2.14</td>
<td>1.87</td>
<td>1.24</td>
<td>49</td>
<td>0.2217</td>
<td>45</td>
<td>6</td>
<td>0.53</td>
<td>0.40</td>
</tr>
<tr>
<td>Ben</td>
<td>2.00</td>
<td>2.03</td>
<td>-0.27</td>
<td>49</td>
<td>0.7910</td>
<td>45</td>
<td>6</td>
<td>0.34</td>
<td>0.19</td>
</tr>
<tr>
<td>SR</td>
<td>2.16</td>
<td>2.13</td>
<td>0.12</td>
<td>49</td>
<td>0.9055</td>
<td>45</td>
<td>6</td>
<td>0.53</td>
<td>0.37</td>
</tr>
<tr>
<td>CMHI</td>
<td>2.03</td>
<td>1.78</td>
<td>1.08</td>
<td>49</td>
<td>0.2863</td>
<td>45</td>
<td>6</td>
<td>0.54</td>
<td>0.43</td>
</tr>
</tbody>
</table>

*Note.* Au/A = Authoritarianism; Ben/B = Benevolence; SR = Social Restrictiveness; CMHI= Community Mental Health Ideology.
One-way ANOVA was conducted to measure the effect of Race on the 4 factors of the CAMI in relation to attitudes to mental illness. Table 20 shows the descriptive statistics related to the race category. Table 21 illustrates the results of the ANOVA, which shows no statistically significant differences.

Table 20

Race comparisons descriptive statistics

<table>
<thead>
<tr>
<th>Race</th>
<th>A</th>
<th>A</th>
<th>A</th>
<th>B</th>
<th>B</th>
<th>B</th>
<th>SR</th>
<th>S</th>
<th>S</th>
<th>SR</th>
<th>CM</th>
<th>CM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>N</td>
<td>SD</td>
<td>Mean</td>
<td>N</td>
<td>S</td>
<td>D</td>
<td>Mean</td>
<td>N</td>
<td>S</td>
<td>D</td>
<td>Mean</td>
</tr>
<tr>
<td>Black</td>
<td>2.20</td>
<td>28</td>
<td>0.60</td>
<td>2.06</td>
<td>2</td>
<td>0.</td>
<td>2.1</td>
<td>2</td>
<td>0.</td>
<td>1.9</td>
<td>28</td>
<td>0.5</td>
</tr>
<tr>
<td>Coloured</td>
<td>2.38</td>
<td>5</td>
<td>0.48</td>
<td>1.94</td>
<td>5</td>
<td>0.</td>
<td>2.3</td>
<td>5</td>
<td>0.</td>
<td>2.5</td>
<td>5</td>
<td>0.4</td>
</tr>
<tr>
<td>White</td>
<td>1.92</td>
<td>17</td>
<td>0.29</td>
<td>1.95</td>
<td>1</td>
<td>0.</td>
<td>2.1</td>
<td>1</td>
<td>0.</td>
<td>1.9</td>
<td>17</td>
<td>0.4</td>
</tr>
<tr>
<td>All Groups</td>
<td>2.12</td>
<td>50</td>
<td>0.52</td>
<td>2.01</td>
<td>5</td>
<td>0.</td>
<td>2.1</td>
<td>5</td>
<td>0.</td>
<td>2.0</td>
<td>50</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Note- Au/A= Authoritarianism; Ben/B= Benevolence; SR= Social Restrictiveness; CMHI= Community Mental Health Ideology.

Table 21

Race ANOVA

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Au</td>
<td>2.31</td>
<td>0.1102</td>
</tr>
<tr>
<td>Ben</td>
<td>0.69</td>
<td>0.5055</td>
</tr>
<tr>
<td>SR</td>
<td>0.24</td>
<td>0.7842</td>
</tr>
</tbody>
</table>
CMHI 3.05 0.0567

Note - Au/A= Authoritarianism; Ben/B= Benevolence; SR= Social Restrictiveness; CMHI= Community Mental Health Ideology; F= F-statistic; p= probability value.
No statistically significant difference (all p-values > 0.05)

**Home Language Comparisons.**

Tables 22 and 23 show the results for the Home Language category in relation to the factors. One-way ANOVA was conducted to measure the relationship between various Home Languages and the 4 factors of the CAMI. There were no statistically significant differences between group means as determined by one-way ANOVA.

Table 22

*Home language comparisons descriptive statistics*

<table>
<thead>
<tr>
<th>Home Language</th>
<th>A</th>
<th>A</th>
<th>A</th>
<th>B</th>
<th>B</th>
<th>B</th>
<th>SR</th>
<th>S</th>
<th>S</th>
<th>CM</th>
<th>CM</th>
<th>CM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>N</td>
<td>SD</td>
<td>Mean</td>
<td>N</td>
<td>SD</td>
<td>Mean</td>
<td>N</td>
<td>SD</td>
<td>Mean</td>
<td>N</td>
<td>SD</td>
</tr>
<tr>
<td>English</td>
<td>1.95</td>
<td>15</td>
<td>0.35</td>
<td>1.90</td>
<td>1</td>
<td>0.</td>
<td>2.1</td>
<td>1</td>
<td>0.</td>
<td>2.0</td>
<td>15</td>
<td>0.5</td>
</tr>
<tr>
<td>African</td>
<td>2.20</td>
<td>28</td>
<td>0.60</td>
<td>2.06</td>
<td>2</td>
<td>0.</td>
<td>2.1</td>
<td>2</td>
<td>0.</td>
<td>1.9</td>
<td>28</td>
<td>0.5</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>2.07</td>
<td>7</td>
<td>0.50</td>
<td>1.97</td>
<td>7</td>
<td>0.</td>
<td>2.1</td>
<td>7</td>
<td>0.</td>
<td>1.9</td>
<td>7</td>
<td>0.4</td>
</tr>
<tr>
<td>All Groups</td>
<td>2.11</td>
<td>50</td>
<td>0.52</td>
<td>2.00</td>
<td>5</td>
<td>0.</td>
<td>2.1</td>
<td>5</td>
<td>0.</td>
<td>2.0</td>
<td>50</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Note - Au/A= Authoritarianism; Ben/B= Benevolence; SR= Social Restrictiveness; CMHI= Community Mental Health Ideology.
Table 23

*Home language ANOVA*

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Au</td>
<td>1.11</td>
<td>0.3386</td>
</tr>
<tr>
<td>Ben</td>
<td>1.17</td>
<td>0.3194</td>
</tr>
<tr>
<td>SR</td>
<td>0.01</td>
<td>0.9911</td>
</tr>
<tr>
<td>CMHI</td>
<td>0.19</td>
<td>0.8300</td>
</tr>
</tbody>
</table>

*Note*- Au/A= Authoritarianism; Ben/B= Benevolence; SR= Social Restrictiveness; CMHI= Community Mental Health Ideology; F= F-statistic; p= probability value.
No statistically significant difference (all p-values > 0.05).

*Area of Origin comparisons.*

A total of 35 participants reported urban origins while 16 reported rural origins. An independent-samples t-test was conducted to compare the attitudes towards mental illness of participants based on area of origin. Table 24 displays the t-test results for this category. No statistically significant difference was found in the relationship between areas of origin and the CAMI factors.

Table 24

*Urban/Rural Origins comparisons using t-tests*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Mean</th>
<th>t-value</th>
<th>df</th>
<th>p</th>
<th>Valid N</th>
<th>Valid N</th>
<th>SD</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>2.02</td>
<td>2.32</td>
<td>-1.98</td>
<td>49</td>
<td>0.0532</td>
<td>35</td>
<td>16</td>
<td>0.42</td>
<td>0.65</td>
</tr>
<tr>
<td>Rural</td>
<td>1.97</td>
<td>2.07</td>
<td>-1.03</td>
<td>49</td>
<td>0.3090</td>
<td>35</td>
<td>16</td>
<td>0.32</td>
<td>0.32</td>
</tr>
<tr>
<td>SR</td>
<td>2.18</td>
<td>2.10</td>
<td>0.54</td>
<td>49</td>
<td>0.5946</td>
<td>35</td>
<td>16</td>
<td>0.53</td>
<td>0.48</td>
</tr>
<tr>
<td>CMHI</td>
<td>2.00</td>
<td>2.01</td>
<td>-0.04</td>
<td>49</td>
<td>0.9693</td>
<td>35</td>
<td>16</td>
<td>0.52</td>
<td>0.57</td>
</tr>
</tbody>
</table>

*Note* - Au/A= Authoritarianism; Ben/B= Benevolence; SR= Social Restrictiveness; CMHI= Community Mental Health Ideology.
No statistically significant difference (all p-values > 0.05).
Section 3- Open-Ended statements

In the optional open-ended section, respondents were enabled to state additional subjective opinions about mental illness and those living with mental illnesses. The responses were not analysed formally by means of a qualitative thematic analysis. Rather they were evaluated anecdotally in order to expand the understanding and evidence of students’ attitudes beyond the standardized quantitative findings that were obtained. The prompting statement was phrased as follows, “Please note down any further comments and queries you may have about mental illness”.

Similar to the CAMI findings, respondents mostly demonstrated favourable, benevolent attitudes towards mental illness and those afflicted by it. Many of the respondents indicated positive responses towards those with living with mental illness, with one respondent stating, “Mentally ill people are people just like the rest of us, they should be treated with dignity and respect...”. Much emphasis was placed on the integration and acceptance of those with mental illness into the community. There was also a strong indication of the need for people to be more cognisant of mental illness as the respondents linked a lack of knowledge to the formation of negative attitudes, “I feel that our society has many assumptions about the mentally ill patients/members of society and that’s due to the lack of knowledge about mental illness...”.

Many advocated for increased awareness and knowledge about mental illness, for example by saying “…there should be programmes that focus on addressing that lack of knowledge”. This has previously been extensively noted in existing literature, with many studies attributing pervasive negative attitudes to this lack of knowledge (Benedicto et al., 2016). Some respondents advocated for the responsibility of health practitioners and trainees to provide knowledge and education about mental illness, “Our responsibility as mental
health students should be to spread awareness on mental illness so as to curb some of the stigma still prevalent in society”.

Stereotypes and prejudice were also indicated as negatively influencing people’s perceptions of mental illness, for example “…society’s perceptions of the mentally ill people are mostly influenced by stereotypes and the prejudice which leads to discrimination toward the mentally ill”. As such, there was a call for open-minded attitudes and better treatment of those with mental illness, “Mentally ill people should not be treated like they have a contagious disease, they are also human and need the same love and care just like the rest of us”. It was interesting to note that most of the respondents referred to mental illness as a psychobiological illness, and not a paranormal affliction, as is normally the case with traditional African populations (Vaughn et al., 2009).

Some respondents reported feelings of fear and discomfort at being around people living with mental illnesses, “Mentally ill people are a danger to society as they don’t think before they act, some people are scared of them”. This sentiment about dangerousness was shared by another respondent, who stated, “I may not be comfortable to be alone in the same room with a person with mental illnesses as they can be dangerous sometimes”. These expressions of fear and discomfort however seemed to be the exception, and not the norm.

Conclusion

This chapter reported the various results and findings of the survey according to the three sections which included a biographical questionnaire, the measure of attitudes towards mental illness and qualitative responses which elicited further respondent opinions and attitudes. Tables were used to illustrate the statistical findings, with brief explanations provided for each table while an anecdotal approach was undertaken to highlight the qualitative component of the data that was gathered.
Chapter 5- Discussion and Conclusion

Introduction
This chapter will thoroughly discuss the research results and explore the implications thereof.

Discussion
In South Africa, there have only been a few studies on attitudes towards mental illness, especially those focusing on student populations. This study consisted of a survey that was conducted at a South African university in order to investigate and measure the attitudes of undergraduate Psychology students towards mental illness. It was hypothesized that sociodemographic variables would influence the attitudes of the various groups. To be more specific, it was hypothesized that there would be specific attitudinal differences that could be attributable demographics. Each demographic group was analysed using various statistical procedures in relation to the 4 CAMI factors. Student attitudes in general were then tapped further by means of an anecdotal qualitative evaluation of written responses to the last section of the questionnaire.

The frequencies of the demographic categories were recorded. Once this was done, they were evaluated against the factors of the CAMI questionnaire. As previously mentioned, the CAMI consists of 4 factors, namely Authoritarianism, Benevolence, Social Restrictiveness and Community Mental Health Ideology. Respondents’ level of agreement or disagreement with items was interpreted in relation to each factor. Higher overall mean scores on the CAMI were indicative of more negative attitudes. Respondents also reported further queries and opinions they had about mental illness in the final section of the survey. The results were of the study were presented in Chapter 4. This chapter will discuss the results in greater detail.
Findings

The majority of respondents from the Department of Psychology were above 20 years of age (56.9%). Many of them were registered in their 3rd year of study (47.1%) and 88.2% of the sample identified themselves as female. With regards to race, 54.9% were Black. Most of the respondents were registered for the BA Psych degree (94.1%), identified their Home Language as IsiXhosa (51%) and had Urban origins (65.6%).

The four CAMI subscales showed no statistically significant mean differences across the demographic factors of age, gender, educational level, race, home language, and area of origin. Overall results were extracted from descriptive statistics, which indicated the existence of positive attitudes to mental illness for this specific sample based on the CAMI scores. There were low mean scores for each CAMI factor, which is indicative of more positive attitudes as opposed to negative attitudes. No strong feelings or attitudes were conveyed by the CAMI findings; just slightly favourable attitudes. This is contrary to existing literature. Much research has indicated that sociodemographic factors play a role in the attitudes towards mental illness, with most of these being negative attitudes (Armanmehr, Shahghasemi, Alami, Moradi & Rezaien, 2016). The results in this study are also unlike those observed in Law, Rostill-Brookes and Goodman (2009)’s study, where gender and student type were found to be important influences on public stigma. Most of the previous research findings based on the CAMI show statistically significant differences between demographically variable groups (Girma et al., 2013).

The results of the current study, however, found that the students tended to have sympathetic views about people living with mental illness but that nevertheless they were also mildly prone to avoid people with mental illnesses, as measured by the subscale of Social Restrictiveness. This was also supported by some open-ended statements in the
additional comments section of the survey, with respondents citing dangerousness as the main factor for this avoidant behaviour. However, this was the exception, rather than the rule.

Although there were no significant differences among the various respondent groups, there were some notable findings. Results for the age category indicated no significant differences between the different age groups but there was a trend for those of the older age group to be associated with slightly more positive attitudes. This is somewhat in alignment with internationally based research which has shown significant differences in attitudes based on age differences. For example, Maier et al. (2015) found that the factors of older age and more experience were directly linked to positive attitudes towards those with mental illness.

Being male was also associated with a trend towards increasingly favourable attitudes towards mental illness, but this did not reach statistically significance. Existing literature is equivocal in relation to the influence of gender on attitudes towards mental illness. Some literature has indicated that gender is not a significant factor regarding stigma against mental illness. For example, Girma et al. (2013) found no significant difference between men and women in relation to stigma towards mental illness. Other research has indicated the opposite. Ewalds-Kvist et al. (2012) noted that females were more empathic towards those living with mental illness, than males. Findings from Law et al. (2009) supported this and noted that men reported higher levels of anger, anxiety and avoidant behaviour. Some literature has indicated that although females may have more benevolent attitudes towards mental illness, they are more likely to attribute dangerousness and unpredictability towards those with mental illness (Smith & Cashwell, 2011).

Respondents in this study from different geographical areas and from different language groups displayed homogenous attitudes. Again, this contrasts with existing research, which shows that people who come from rural areas tend to attribute mental illness
to paranormal and supernatural factors (Ganasen et al., 2008). This is not to say that the respondents in this study do not have these beliefs and conceptualisations. However, this was not explicitly observed or stated in this study.

The category of educational level displayed an interesting finding. Based on the general trend in existing literature, it was intuited that for this specific sample (as is the case with other studies), a positive link would be seen between an increase in education and more positive attitudes. However, contrary to this no positive relationship was determined between educational levels and favourable attitudes, as measured by the CAMI. On the other hand, at a qualitative or anecdotal level, the findings in the open-ended section of this study education and knowledge were repeatedly mentioned by respondents in relation to their attitudes about mental illness. Many respondents provided written opinions that noted the relationship between a high level of education and benevolent attitudes to mental illness.

The literature is somewhat variable in this regard as while in some studies education has been found to have both negative and positive effects on attitudes to mental illness (Mavundla et al., 2001; Gureje et al., 2005). Much of the literature indicates that the higher the level of mental health literacy, the more positive the attitudes will be towards mental illness (Basheer, 1998). Higher education levels have been associated with less stigma (Barke et al., 2011; Gyllensten et al., 2011).

Other studies have disputed this idea and denied any relationship between educational level and stigma (Ross & Goldner, 2009; Angermeyer et al., 2009; Matthews et al., 2016). Still proponents of the positive influence of education on stigma, have emphasised that any education provided can significantly reduce stigma (Monteiro et al., 2014). Some researchers believe that it is not just general education but that a particular kind of knowledge is needed in order to improve causal attributions about mental illness (Ganasen et al., 2008). This may explain the results found in this study. With the participants consisting of only Psychology
students, there is already an assumption that they are moderately knowledgeable and interested about mental health problems and treatment. Most importantly, their field of study has consistently exposed this group to information about mental health issues. This may explain their tendency towards favourable, less stigmatized attitudes to mental illness across all year levels and it can be said that their field of study has most likely impacted on their attitudes to mental illness.

**Implications**

According to Law et al. (2009), very few studies have up until now, focused on attributions in relation to health professionals’ attitudes and behaviours towards those living with mental illnesses. Moreover, little has been documented about the attitudes of health sciences student populations as prospective practitioners with research of this nature being scant, especially in Africa. Those attitude studies that have been conducted with South African health care professionals have repeatedly shown that negative attitudes are related to poor knowledge and education about mental illness and it is common knowledge that stigma from health professionals will have negative effects on a large scale (Mavundla et al., 2001; Gureje et al., 2005). Negative attitudes and opinions from health practitioners are likely to result in negative patient-professional interactions, which may lower treatment compliance and inadvertently encourage negative attitudes among fellow workers (Hinshaw & Stier, 2008).

Investigating and addressing these attitudes as they develop at a training level, can determine how knowledge (together with other demographic variables) influences these attitudes. This is important considering South Africa’s diverse context where each cultural group conceptualises mental illness in its own way. Determining how these attitudes develop and what attributions influence them can assist in stigma reduction strategies.
To illustrate this, Law et al. (2009) investigated the ways in which causal attributions of both healthcare and non-healthcare students affect their beliefs about personal control, their emotional responses and their likelihood of helping and rejecting behaviours (in relation to mental health stigma). Amongst others, the researchers discovered that students’ attitudes were less favourable when they perceived a self-harming behaviour as a personal consequence of the acting individual (Law et al., 2009).

In the context of this study, it was assumed that this sample of students already had favourable attitudes towards mental illness. Psychology studies focus on a holistic framework- looking at the etiology of mental illness from various perspectives. Students are taught about different types of influences to the development and treatment of mental illness. This could explain why this sample tended to have more favourable attitudes to mental illness; having learned about different approaches and broadened their knowledge base about the subject. They might attribute the development of mental illness to factors outside of the afflicted individual. This is important because, as per the attribution theory, it would result in higher levels of empathy and understanding for those living with mental illness.

Another possible explanation relates to the causal attributions ascribed by the sample. Many of the respondents attributed mental illness to biological causes, implying external attributions for the causes of mental disorders. There was no indication of personal blame on those afflicted with mental illnesses. In this case, biological causal attributions translate to positive attitudes to mental illness because of the external focus of causes.

Notably, some apprehension and fear was noted pertaining to making contact with those living with mental illness. Yet, respondents also expressed a need for greater knowledge and exposure to mental health for themselves and for those in the community. This is encouraging, as it indicates a willingness to learn and teach about mental illness. It also means that there is some awareness of the role of education and knowledge on
Attitudes of undergraduate Psychology students towards mental illness

combating stigma. While the impact of sociodemographic variables remains relatively unknown in this context, it can be said that these students continuously engage with learning material and people living with mental illness as part of their studies. If the factor of education is to be considered as a mediating factor in reducing stigma, this study can be considered a small example of this.

Corrigan et al. (2000) proposed three strategies for changing attributions about mental illness, namely education, contact and protest. They noted that education and contact led to change about negative attributions while protest did not. To reduce stigma, some authors stress the perspective of biomedical origins—such as teaching the public about the role of genetic factors in the development of psychiatric disorders (Hinshaw & Stier, 2008). This was a popular opinion expressed in this study, and it helped the students to conceptualise mental illness. This position appears to be due to the subject matter taught to the students in their undergraduate Psychology classes. Typically, biomedical causes would result in more stigmatized attitudes to mental illness as there is an assumption that people living with mental illnesses are unpredictable and violent (Lyndon, Crowe, Wuensch, McCammon & Davis, 2016). However, in this instance, biogenetic views about mental illness origins resulted in empathic attitudes. According to Pitcher (2013), a biomedical perspective can result in more compassionate attitudes due to the belief that sufferers have no control over their afflictions. Educating people about mental illnesses as being like all other illnesses can help normalize mental illness and place the blame on factors or stressors outside of individual personal control. This, it is believed, will significantly reduce stigma and negative attitudes related to mental disorders (Hinshaw & Stier, 2008).

It is important to note that this is not a foolproof strategy as other factors that are seen to be outside of personal control, have continuously received negative reactions and stigmatized attitudes. Race and gender, for example, have been subjects of stigma and
discrimination for decades even though they are clearly factors beyond one’s control (Hinshaw & Stier, 2008). Another possible negative of emphasizing medical causes is that there is a certain level of helplessness ascribed to those who are mentally ill; mainly being placed in the patient role which is often disempowering (Hinshaw & Stier, 2008). Also, there may be beliefs about contagion and to a certain degree, beliefs about something innately faulty in the person who is ‘sick’.

To combat this, Hinshaw and Stier (2008) proposed a dual-attribution approach to improving people’s attributions about mental illness. This dual-attribution approach would focus on the dissemination of information about medical causes and psychosocial factors about mental illness in order to encourage a more holistic conceptualisation of mental disorders as opposed to a single approach.

The primary implication of this study is that an increase in knowledge, will improve people’s attitudes to mental illness and those living with mental disorders. This in turn will improve people’s behaviour towards those with mental illness. For student populations, this knowledge increase can create better understanding and perhaps more empathy towards others. Similarly, practitioners could gain more understanding and be more compassionate about mental illness, which would go a long way in encouraging people to seek treatment appropriately and adhere to it.

**Conclusion**

This study aimed to investigate the attitudes of undergraduate Psychology students towards mental illness. It also explored the differences between the students based on various sociodemographic factors in relation to mental illness attitudes. It was found that the students’ overall attitudes were benevolent and favourable, and that they did not advocate for the isolation of those living with mental illness from their communities. These findings run counter to the conventional negative views expressed by student populations in other studies.
Furthermore, sociodemographic variables did not appear to significantly influence students’ attitudes, which also contrasts findings from other studies of a similar nature. This sample of students also supported increased awareness and education about mental health in order to reduce stigma. From these findings, it may be concluded that a certain level of knowledge about mental illness can mediate stigma and other negative conceptualisations of mental illness. This information could be valuable for the training of Health Sciences (Psychology) students and form the basis for future studies which seek to investigate the role of education in relation to mental illness attitudes.
Chapter 6- Limitations and Recommendations

Introduction

There were several limitations that emerged in the study which must be considered in interpreting the results.

Limitations

The initial aim of the study was to reach as many undergraduate Behavioural Sciences students as possible by means of an online attitude survey. However, originally a total of only 70 students submitted their responses to the survey which presented a specific challenge in terms of representativeness and response rate. There were very low response rates from the students in both the departments of Social Development Professions and Environmental Health necessitating that they were subsequently excluded from the final sample due to the resultant statistical limitations. First year Department of Psychology students were also excluded from the final sample because of their very low response rate in relation to their enrollment number. Consequently, it became necessary to narrow the sample down to just senior students in the Psychology department. As a result of these sampling adjustments, a relatively small and limited final sample size with somewhat unequal grouping was obtained. This was the major limitation of the study which probably influenced the findings where no statistically significant differences between the sample subgroups were determined.

Due to the nature of the respondent student population it is possible that they wanted to present themselves in a favourable light to the Psychology department. This means that certain of their responses may not have been true reflections of their attitudes due to response bias which is a limitation for many studies of this nature.

After analysis of each of the factors, it was noted that the Benevolence scale had a lower validity and correlation with other scales implying that the items included here did not always measure what they purported to, nor did they correlate well with each other.
Recommendations

Despite the effort to adapt the CAMI for online administration, it is recommended that researchers choose a different, or joint medium for administering the CAMI survey. It is suggested that a paper and pencil technique be used, either as a standalone administration technique or in conjunction with online administration, as opposed to merely an online survey due to the relatively low response rate of online surveys. This will enable researchers to obtain a larger and more representative sample and thereby increase the generalizability of the findings.

For qualitative data analysis, to elicit greater depth, a full method of thematic analysis and triangulation should be considered for future studies. Making the qualitative section compulsory as opposed to optional could be considered as this would ensure respondent qualitative responses.

In relation to the topic of the study, most of the literature indicates a strong correlation between stigmatization of people with mental disorders and a lack of education about mental illness. Increasing mental health literacy in both the general community as well as having this as part of healthcare or behavioural science university curriculae is recommended in order to reduce the prevalence of stigma. It is important to continue to improve mental health literacy among professionals. Poor mental health literacy can be an obstacle to treatment provision, especially in low and middle-income countries like South Africa. Strategies for improving mental health knowledge will need to be comprehensive and innovative in order to make a significant impact. Future research on the impact of providing such mental health knowledge and education to facilitate enlightened attitudes toward mental illnesses is encouraged and recommended.
Conclusion

No study is without errors and limitations. This chapter focused on the limitations encountered during the course of the current study. Recommendations were also proposed based on the findings as well as for future methodological purposes.
References


Attitudes of undergraduate Psychology students towards mental illness


Attitudes of undergraduate Psychology students towards mental illness


Attitudes of undergraduate Psychology students towards mental illness

*and Psychiatric Epidemiology*, 38, 715-719. Retrieved from


APPENDIX A
PERMISSION LETTER TO THE DIRECTOR OF THE SCHOOL OF BEHAVIOURAL SCIENCES

Prof xxx
Director of Behavioural Sciences School
xxx University
Port Elizabeth
6001

23 January 2017

Dear xxx

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN THE SCHOOL OF BEHAVIOURAL SCIENCES

I hereby request permission to conduct research within the School of Behavioural Sciences, namely undergraduate students in the Departments of Environmental Health, Psychology and Social Development Professions.

The proposed topic of my research is: Attitudes of Behavioural Sciences students towards mental illness. The objectives of the study are:

i. To investigate the nature of the attitudes of the Behavioural Sciences students towards mental illness

ii. To assess if the attitudes of the students from the various departments within the School of Behavioural Sciences will differ significantly

iii. To determine if attitudes towards mental illness are influenced by the demographic factors of age, gender, level of education, racial group as well as the rural or urban origin of participants

Data will be collected via the xxxUniversity’s student portal system in the form of an online survey. To assist you in reaching a decision, I have attached to this letter:

(a) A copy of an ethical clearance certificate issued by the University
(b) A copy the research instruments which I intend using in my research

Should you require any further information, please do not hesitate to contact me or my supervisor, Mr Sack. Our contact details are as follows:

**Personal contact number:** 078xxxxxxx

**Main email address:** s21111589@nmmu.ac.za

**Alternative email address:** phakamalugowgana@gmail.com

Supervisor’s email address: **Vernon.Sack@nmmu.ac.za**

Your permission to conduct this study will be greatly appreciated.

Yours sincerely,

_________________________________________  ___________________________

Pakama Lugogwana                     Mr V. Sack

**Principal Investigator**             **Primary Responsible Person**
APPENDIX B
PERMISSION LETTER TO THE DVC: RESEARCH AND ENGAGEMENT

Prof. xxx
Deputy Vice Chancellor (DVC) for Research and Engagement
Office of the DVC: RE
xxx University
Port Elizabeth
6001

23 January 2017

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

Dear Professor xxx

My name is Pakama Lugogwana. I am a registered Master of Arts: Clinical Psychology student in the Department of Psychology at the xxx University. My supervisors are Mr V. Sack and Prof. L. Stroud.

The proposed topic of my research is: Attitudes of Behavioural Sciences students towards mental illness. The objectives of the study are:

iv. To investigate the nature of the attitudes of the Behavioural Sciences students towards mental illness

v. To assess if the attitudes of the students from the various departments within the School of Behavioural Sciences will differ significantly

vi. To determine if attitudes towards mental illness are influenced by the demographic factors of age, gender, level of education, racial group as well as the rural or urban origin of participants

I am hereby seeking your permission to conduct research with undergraduate students within the School of Behavioural Sciences. Data will be collected via an online survey, utilising
xxxUniversity’s student portal system. To assist you in reaching a decision, I have attached to this letter:

(c) A copy of the research proposal
(d) A copy the research instruments which I intend using in my research

Should you require any further information, please do not hesitate to contact me or my supervisor, Mr V. Sack. Our contact details are as follows:

**Contact number:** 078xxxxxxx

**Main email address:** s21111589@nmmu.ac.za

**Alternative email address:** phakamalugogwana@gmail.com

**Supervisor’s email address:** Vernon.Sack@nmmu.ac.za

Your permission to conduct this study will be greatly appreciated.

Yours sincerely,

________________________     ______________________

Pakama Lugogwana       Mr V. Sack

Principal Researcher       Primary Responsible Person
APPENDIX C
Letter of permission to research to be sent to the various Heads of Departments

ACCESS LETTER REQUESTING PERMISSION TO CONDUCT RESEARCH

Dear Sir/Madam

Request for permission to conduct research

I am a registered Master of Arts: Clinical Psychology student in the Department of Psychology at the xxx University. My supervisors are Mr V. Sack and Prof. L. Stroud.

The proposed topic of my research is: Attitudes of Behavioural Sciences students towards mental illness. The objectives of the study are:

i. To investigate the nature of the attitudes of the Behavioural Sciences students towards mental illness

ii. To assess if the attitudes of the students from the various departments within the School of Behavioural Sciences will differ significantly

iii. To determine if attitudes towards mental illness are influenced by the demographic factors of age, gender, level of education, racial group as well as the rural or urban origin of participants

I am hereby seeking your consent to conduct research with undergraduate students within the department. To assist you in reaching a decision, I have attached to this letter:

(e) A copy of an ethical clearance certificate issued by the University

(f) A copy the research instruments which I intend using in my research

Should you require any further information, please do not hesitate to contact me or my supervisor. My contact details are as follows:

Contact number: 078xxxxxxx

Main email address: s21111589@nmmu.ac.za

Alternative email address: phakamalugogwana@gmail.com
Your permission to conduct this study will be greatly appreciated.

Yours sincerely,

Pakama Lugogwana
APPENDIX D

Participant Information letter

Attitudes towards mental illness

Ref: [H16-HEA-PSY-032/Approval]

Contact person: Pakama Lugogwana

Dear Student

You are hereby invited to participate in a research study. My name is Pakama Lugogwana. I am a student completing a MA Clinical Psychology degree. I am conducting research on the attitudes of students within the School of Behavioural Sciences towards mental illness. The aim of this study is measure, explore and describe undergraduate students’ attitudes in relation to mental illness as determined by the 4 dimensions of the Community Attitudes towards Mental Illness scale.

The questionnaire consists of 3 parts- Part 1 consists of demographic questions, Part 2 consists of various statements in relation to one’s thoughts and feelings about mental illness, which are rated in terms of your agreement or disagreement with the statements. Part 3 is optional and consists of an open-ended statement, where participants can further discuss their thoughts and feelings about mental illness.

To participate, it will be required of you to click ‘Agree’ at the beginning of the survey. This is to verify that you understand and consent to the conditions.

Participation in this research study is completely voluntary. If you do partake, you have the right to withdraw at any given time. Although your identity will at all times remain confidential, the results of the research study may be presented at scientific conferences or in specialist publications. Data attained will be stored in a manner that is confidential. Data collected will be used in the formation of my thesis.
Should you have any queries, concerns or experience difficulties in completing the survey, please feel free to contact me at phakamalugogwana@gmail.com. Thank you in advance for your participation.

Pakama Lugogwana

Researcher
APPENDIX E

Demographic Questionnaire

Please fill in all the biographical information.

1.1 What is your age in years?  

1.2 Current Undergraduate Level of Education

- 1st year
- 2nd year
- 3rd year
- 4th year

1.3 Gender

- Female
- Male

1.4 Race

- Black
- Coloured
- Asian/Indian
- White
- Other

1.5 Qualification that you are registered for (e.g. BA(Psych))

1.6 Primary field of study

- Psychology
- Environmental Health
- Social Development Professions

1.7 Home Language

- English
- Afrikaans
- IsiXhosa
- Other (specify)

1.8 Did you originate or grow up in a rural or urban area?

- Rural
- Urban
APPENDIX F

Community Attitudes towards Mental Illness Scale

For each of the following statements (1-40), select the option that closely corresponds to how you feel.

1= Strongly Disagree
2= Disagree
3= Neutral
4= Agree
5= Strongly Agree

<table>
<thead>
<tr>
<th>Statements</th>
<th>S.A.</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. As soon as a person shows signs of mental disturbance, he should be hospitalized.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. More tax money should be spent on the care and treatment of the mentally ill.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. The mentally ill should be isolated from the rest of the community.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. The best therapy for many mental patients is to be part of a normal community.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Mental illness is an illness like any other.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. The mentally ill are a burden on society</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. The mentally ill are far less of a danger than most people suppose.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Locating mental health facilities in a residential area downgrades the neighbourhood.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. There is something about the mentally ill that makes it easy to tell them from normal people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. The mentally ill have for too long been the subject of ridicule.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. A woman would be foolish to marry a man who has suffered from mental illness, even though he seems fully recovered.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. As far as possible mental health services should be provided through community based facilities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. Less emphasis should be placed on protecting the public from the mentally ill</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
</tr>
<tr>
<td>14. Increased spending on mental health services is a waste of tax Rands.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. No-one has the right to exclude the mentally ill from their neighbourhood.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. Having mental patients living within residential neighbourhoods might be good therapy but the risks to residents are too great.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. Mental patients need the same kind of control and discipline as a young child.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. We need to adopt a far more tolerant attitude toward the mentally ill in our society.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. I would not want to live next door to someone who has been mentally ill.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20. Residents should accept the location of mental health facilities in their neighbourhood to serve the needs of the local community.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>21. The mentally ill should not be treated as outcasts of society.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
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<tr>
<td>22. There are sufficient existing services for the mentally ill.</td>
<td>1</td>
<td>2</td>
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<td>5</td>
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<tr>
<td>23. Mental patients should be encouraged to assume the responsibilities of normal life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24. Local residents have good reason to resist the location of mental health services in their neighbourhood.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25. The best way to handle the mentally ill is to keep them behind locked doors.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>26. Our mental hospitals seem more like prisons than places where the mentally ill can be cared for.</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
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<tr>
<td>27. Anyone with a history of mental problems should be excluded from taking public office.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
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<tr>
<td>28. Locating mental health services in residential neighbourhoods’ does not endanger local residents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Statement</td>
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<tr>
<td>29. Mental hospitals are an out-dated means of treating the mentally ill</td>
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<tr>
<td>30. The mentally ill don’t deserve our sympathy.</td>
<td>1</td>
<td>2</td>
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<td>5</td>
</tr>
<tr>
<td>31. The mentally ill should not be denied their individual rights.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>32. Mental health facilities should be kept out of residential</td>
<td>1</td>
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<td>neighbourhoods.</td>
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<td>33. One of the main causes of mental illness is a lack of self-discipline</td>
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<td>and will power.</td>
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<td>34. We have a responsibility to provide the best possible care for the</td>
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<td>mentally ill.</td>
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<tr>
<td>35. The mentally ill should not be given any responsibility.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>36. Residents have nothing to fear from people coming into their</td>
<td>1</td>
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<td>5</td>
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<td>neighbourhood to obtain mental health services.</td>
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<tr>
<td>37. Virtually anyone can become mentally ill.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>38. It is best to avoid anyone who has mental problems.</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
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<tr>
<td>39. Most women who were once patients in a mental hospital can be</td>
<td>1</td>
<td>2</td>
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<td>trusted as babysitters.</td>
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<td>40. It is frightening to think of people with mental problems living in</td>
<td>1</td>
<td>2</td>
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<td>residential neighbourhoods.</td>
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</table>

Please note down any further thoughts and comments you may have about mental illness.

Thank you for your participation in this study!
APPENDIX G
CAMI Item-Factor

**Authoritarianism Subscale**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>As soon as a person shows signs of mental disturbance, he should be hospitalized.</td>
</tr>
<tr>
<td>5.</td>
<td>Mental illness is an illness like any other.</td>
</tr>
<tr>
<td>9.</td>
<td>There is something about the mentally ill that makes it easy to tell them from normal people.</td>
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<td>Less emphasis should be placed on protecting the public from the mentally ill</td>
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<td>Mental patients need the same kind of control and discipline as a young child.</td>
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</tr>
<tr>
<td>25.</td>
<td>The best way to handle the mentally ill is to keep them behind locked doors.</td>
</tr>
<tr>
<td>29.</td>
<td>Mental hospitals are an out-dated means of treating the mentally ill</td>
</tr>
<tr>
<td>33.</td>
<td>One of the main causes of mental illness is a lack of self-discipline and will power.</td>
</tr>
<tr>
<td>37.</td>
<td>Virtually anyone can become mentally ill.</td>
</tr>
</tbody>
</table>
### Benevolence Subscale

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>2.</td>
<td>More tax money should be spent on the care and treatment of the mentally ill.</td>
</tr>
<tr>
<td>6.</td>
<td>The mentally ill are a burden on society.</td>
</tr>
<tr>
<td>10.</td>
<td>The mentally ill have for too long been the subject of ridicule.</td>
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<td>Increased spending on mental health services is a waste of tax Rands.</td>
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<td>We need to adopt a far more tolerant attitude toward the mentally ill in our society.</td>
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<tr>
<td>22.</td>
<td>There are sufficient existing services for the mentally ill.</td>
</tr>
<tr>
<td>26.</td>
<td>Our mental hospitals seem more like prisons than places where the mentally ill can be cared for.</td>
</tr>
<tr>
<td>30.</td>
<td>The mentally ill don’t deserve our sympathy.</td>
</tr>
<tr>
<td>34.</td>
<td>We have a responsibility to provide the best possible care for the mentally ill.</td>
</tr>
<tr>
<td>38.</td>
<td>It is best to avoid anyone who has mental problems.</td>
</tr>
<tr>
<td>Social Restrictiveness Subscale</td>
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<tr>
<td>3. The mentally ill should be isolated from the rest of the community.</td>
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<tr>
<td>7. The mentally ill are far less of a danger than most people suppose.</td>
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</tr>
<tr>
<td>11. A woman would be foolish to marry a man who has suffered from mental illness, even though he seems fully recovered.</td>
<td></td>
</tr>
<tr>
<td>15. No-one has the right to exclude the mentally ill from their neighbourhood.</td>
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<tr>
<td>19. I would not want to live next door to someone who has been mentally ill.</td>
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</tr>
<tr>
<td>23. Mental patients should be encouraged to assume the responsibilities of normal life.</td>
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<tr>
<td>27. Anyone with a history of mental problems should be excluded from taking public office.</td>
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<tr>
<td>31. The mentally ill should not be denied their individual rights.</td>
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<tr>
<td>35. The mentally ill should not be given any responsibility.</td>
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<tr>
<td>39. Most women who were once patients in a mental hospital can be trusted as babysitters.</td>
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<tr>
<td>Community Health Ideology Subscale</td>
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<tr>
<td>4. The best therapy for many mental patients is to be part of a normal community.</td>
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<tr>
<td>8. Locating mental health facilities in a residential area downgrades the neighbourhood.</td>
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<tr>
<td>12. As far as possible mental health services should be provided through community based facilities.</td>
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<tr>
<td>16. Having mental patients living within residential neighbourhoods might be good therapy but the risks to residents are too great.</td>
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<tr>
<td>20. Residents should accept the location of mental health facilities in their neighbourhood to serve the needs of the local community.</td>
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<tr>
<td>24. Local residents have good reason to resist the location of mental health services in their neighbourhood.</td>
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</tr>
<tr>
<td>28. Locating mental health services in residential neighbourhoods’ does not endanger local residents.</td>
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</tr>
<tr>
<td>32. Mental health facilities should be kept out of residential neighbourhoods.</td>
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<tr>
<td>36. Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services.</td>
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</tr>
<tr>
<td>40. It is frightening to think of people with mental problems living in residential neighbourhoods.</td>
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</tbody>
</table>