

**DESCRIBING NURSES' STIGMATISING ATTITUDES
TOWARDS PERSONS WITH MENTAL DISORDERS IN A
SELECTED DISTRICT HOSPITAL SETTING IN RWANDA**

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Course work Master's Degree in Nursing

(Mental Health Nursing)

Researcher: Mr Vedaste Baziga

Student Number: 212558609

Research Supervisor: Ms A.A.H. Smith

Howard, 2013

DECLARATION

I, Vedaste BAZIGA, declare that this dissertation titled “**DESCRIBING NURSES’ STIGMATISING ATTITUDES TOWARDS PERSONS WITH MENTAL DISORDERS IN A SELECTED DISTRICT HOSPITAL SETTING IN RWANDA**” is my original work. It has never been submitted before for any other degree or examination in any other University. I also declare that the sources of information used in this work have been acknowledged by means of reference.

This research project has been read and approved for submission by supervisor, Ms A.A.H. Smith

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Mr Vedaste BAZIGA
(**Student number:** 212558609)

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Date

.....
Ms Amanda Smith
(**Research Supervisor**)

.....
Date

DEDICATION

This work is dedicated to you my late parents, Felicien SEKALYONGO and Veronique KANKINDI, for your unconditional love, education and advice. It is also dedicated to my wife Mrs Mechtilde BANKUNDIYE, my daughter Mireille B. UWURUKUNDO, my sons Irene Serge B. RUKUNDO and Emerry B. HIRWA, for your support, understanding and your patience during the course of my studies.

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ABSTRACT

Aim

The purpose of this study was to describe mental disorder stigmatising attitudes held by nurses, in a selected district hospital in Rwanda, and to analyse the potential mediating effects of person variables, specifically familiarity, on these stigmatising attitudes.

Methodology

The stigma process framework informed a quantitative, non-experimental, descriptive research design. A self-report questionnaire included person variables (age, gender, nursing qualification, nursing category and years of nursing experience) and two scales; Level of Contact Scale (LOC) and Community Attitudes towards Mental Illness - Swedish version (CAMI-S). A sample of **one hundred and two** (n=102) was achieved. Ethical approval was obtained from educational institutions, University of KwaZulu-Natal in SA and Kigali Health institute in Rwanda, and at local health care service level in Rwanda.

Data were analyzed using the Statistical Package for Social Sciences (SPSS) Version 21. Analysis includes descriptive statistics and multivariate analysis; associations between scale scores and person variables, inter-correlations between CAMI-S subscales and total scores and correlations of CAMI-S and LOC scale scores. Non parametric tests were used, Mann–Whitney U Test, Kruskal-Willis H Test and Spearman’s rho correlation coefficient test and significance was determined by Cohen’s guide lines (Cohen, 1988) cited in Pallant (2010; 2013).

Results

Although participants reported negative stereotypes in all items on the CAMI-S, related to persons with a mental disorder in keeping with previous international (Griffiths, Nakane, Christensen, Yoshioka, Jorm, & Nakane, 2006; Veer, Kraan, Drosseart & Modde, 2006; Putman, 2008) and local studies (Smith & Middleton, 2010), the extent of contradiction within participant responses suggests social desirability bias. Results suggest that while participants acknowledge community integration of mental health services in principle, their desire for social distance from persons with a mental disorder was strongly evident in responses to proximity of living arrangements and support of segregation.

Statistical results indicated no associations between negative stereotypes and participants’ gender, category of nurses or level of education. However, associations between negative

stereotypes and the younger age group and the less experienced participants are reported as statistically significant. There was high levels of familiarity amongst participants, more than half of participants (57.8%, n=59) scored levels of familiarity at 9, *A friend of my family has a mental disorder*, and above. A negative correlation is reported between familiarity and stigmatizing attitudes.

Conclusion and recommendation

Results suggest familiarity has a positive mediating effect on negative stereotypes. In addition older more experienced nurses are reported to have less stigmatising attitudes towards persons with a mental disorder. Despite these results, contradictions within participants' responses on the CAMI-S suggest that additional research and intervention studies, specifically with general health care practitioners, are recommended to clarify the contradictions and obtain empirical data about effectiveness of contact with persons with a mental disorder.

Key words: Stigma, negative stereotypes, mental disorder, district hospital

ABBREVIATIONS

A0: Bachelor's Degree

A1: Advanced Diploma

A2: Diploma

A3: Diploma (Auxiliary Nurses)

CAMI: Community Attitudes towards Mental Illness

CAMI-S: Community Attitudes towards Mental Illness- Sweden version

CD: Compact Disk

CINAHL: Cumulative Index to Nursing and Allied Health Literature

CHWs: Community Health Workers

DSM IV TR: Diagnostic and Statistical Manual the fourth Revised Version

KHI: Kigali Health Institute

KHIIRB: Kigali Health Institute Institutional Review Board

NEC: National Ethical Committee

LOC: Level of Contact

MEDILINE: Medical Literature Online

MHCUs: Mental health care users

PHC: Primary health care

PsycINFO: Psychology Information

PTSD: Post-traumatic stress disorder

NEC: National Election Commission

SA: South Africa

SCPS: Service de Consultation Psychosocial

SPSS: Statistical Package of Social Sciences

SMI: Severe Mental Illness

UKZN: University of KwaZulu-Natal

WHO: World Health Organization

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CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1. Introduction and background

Mental disorder is defined as a clinically significant behavioural or psychological syndrome, or pattern, that occurs in an individual and is associated with distress or disability or with an increased risk of suffering death, pain, disability, or an important loss of freedom. Mental disorders represent 13% of the global burden of disease and have a global prevalence ranging between 4% and 26% (World Health Organisation (WHO), 2008a; 2011). However, the estimate increases to 23% in high income countries (WHO, 2008a; Burns, 2011; Callaghan, Playle, & Cooper, 2009). It has been argued that the statistical differences between countries are due to cross cultural factors and possible biases in detecting and reporting cases of mental disorders (WHO, 2008a). The higher estimates in high income countries are possibly due to the collection of more accurate data that enables extensive epidemiological studies. In addition, the reported prevalence of mental disorders is argued to be underestimated globally (WHO, 2008b; Burns 2011; Callaghan et al., 2009). Ben-Zeev, Young and Corrigan (2011) support these authors and further argue that the lack of reporting of mental disorders is not only due to limited resources, but can also be a result of discrimination. These authors suggest that mental disorders are not always reported due to fear of potential stigma and are therefore under-recognised, undertreated and thus disabling.

Literature, both local and international, points to a worldwide increase in mental, behavioural and social health problems (Ben-Zeev et al, 2011; Burns, 2011; Hugo, Boshoff, Traut, Dirwayi & Stein, 2003). In recent years, the issue of disability has become a focus of health care, with mental disorders being specifically featured in the global burden of non-communicable diseases (WHO, 2008b). These authors and the WHO (2008a; 2011) also argue that mental disorders are among the four leading causes of disability globally. Mental health problems are reported to be one of the most common causes of disability and premature death, with more than 30% of disability cases reported being related to mental disorders (WHO, 2008a; Callaghan et al., 2009). Disability as a result of mental disorders is defined as any restriction or lack of ability to perform a role in the manner considered normal for a human being (Anthony & Farkas, 2009).

In Africa, the prevalence of mental disorders that have been diagnosed according to the Diagnostic and Statistical Manual of Psychiatric Disorders (DSM IV TR) is estimated at 22% of the total population and this includes 13.4% being attributed to unipolar depressive disorder, 2.7% to bipolar affective disorder, 2.1% to schizophrenia and 3.8% to alcohol abuse disorders (WHO, 2008a). Ben-Zeev and colleagues (2011) suggest that contributing to this distress is the fact that mental disorders are not effectively detected in general health facilities, including primary health care (PHC) settings (Ben-Zeev et al., 2011; Petersen, Bhana, Campbell-Hall, Mjadu, Lund, Kleintjies, Hosegood, & Flisher, 2009). In addition to the statistics related to the DSM IV TR, it is estimated that although 20% of the population in Africa show evidence of psychiatric distress, a good proportion of these persons are not in contact with treatment (Burns, 2011; Hugo et al., 2003).

This issue of not accessing treatment is illustrated by the results of various African studies (Burns, 2011; Girma & Tesfaye, 2011). Girma & Tesfaye (2011) reported that less than 10% of Ethiopian persons with severe mental disorders are treated with modern psychiatric services. In the province of KwaZulu-Natal, South Africa (SA), the results of a study conducted by Burns (2011) relating to persons with first psychotic episode revealed that 38.5% of the participants indicated that they consult traditional healers before accessing modern treatment. This is supported by Petersen et al. (2009), who suggest that the treatment gap in South Africa is large, which was illustrated by their findings that only a quarter of the 16.5% adults who had suffered from common mental disorders reported that they had received any form of psychiatric treatment. Results of Peterson et al. (2009) were similar to those of a Zambian study, which found that more than a third (39%) of persons with mental disorders consult traditional healers before consulting modern psychiatric treatment services (Mbewe, Haworth, Welham, Mubanga, Chazulwa, Zulu, Mayeya & McGrath, 2006). In Nigeria, Adewuya & Makajuola (2008) reported that a third (33%) of the south-western Nigerian public preferred traditional healers as the treatment option for mental health illness.

In Rwanda, the events of the 1994 genocide **have** had a considerable impact on the mental health of the population and the resulting vast number of people suffering from mental trauma has placed a huge burden on the Rwandan mental health services (Rwandan Ministry of Health, 2005, 2011). This phenomenon has also been reported in other war torn countries. For example,

Murthy & Lakshminarayana (2006) reported the national prevalence of mental health related issues in Afghanistan to have increased in direct relation to the conflict. These authors reported high rates of mental disorders amongst the general population; 72.2% anxiety disorders, 67.7% depression and 42% post-traumatic stress disorder (PTSD). Epidemiological studies in Rwanda related to mental disorders have focused mainly on anxiety disorders, specifically PTSD and its comorbidities. The current Rwandan prevalence of PTSD is estimated at 26.1% (Munyandamutsa, Nkubamugisha, Gex-Fabry, & Eytan, 2012) . In addition, mental health care users (MHCUs) who fulfilled diagnostic criteria for PTSD are reported to be significantly more affected with major depression (68.4% vs 6.6%) and substance dependence (7.6% vs 3.5%) than MHCUs without PTSD (Munyandamutsa et al., 2012).

The economic burden related to mental disorders is great and affects individuals, their families and society in general (Ben-Zeev et al., 2011; Hugo et al., 2003; WHO, 2008b). Economic consequences of mental disorders are of specific concern in low and low to middle income countries. Hugo et al. (2003) argue that mental disorders require direct financial (medical care and government disability payments) and indirect financial (reduced productivity related to the long duration of the disorder) costs. This is a serious problem for low income countries where less than 1% of the total national budget is allocated to mental health care. Although persons with mental health disorders should be able to access community based care facilities and supportive resources, only 51.7% of countries, globally, have community mental health services (Ssebunnya, Kigozi, Kizza, Ndyabangi, & Mhapp Research Programme Consortium, 2010; WHO, 2005; Petersen et al., 2009). As long delays between onset of psychiatric symptoms and the first treatment contact are reported to negatively impact on prognosis and mental health care outcomes, less than 26% of all persons with mental disorders have been able to receive adequate mental health services (Wittchen, Jacobi, Rehm, Gustavsson, Svensson, Jönsson, & Steinhausen, 2011; WHO, 2011). This results in chronicity of the mental health disorders which cannot be addressed in low and low to middle income countries because of economic factors such as increased cost of care, reduced affordability and increasing poverty (Thoits, 2005). One solution to prevent chronicity would be to integrate mental health care into main stream health care, more specifically primary health care (PHC) (Uys & Middleton, 2004; WHO, 2008b). Ouzouni and Nakakis (2009), citing the WHO (1984), argue that the recommendation for integration includes improving mental health care at every organisational level, but especially at community level.

While the integration of mental health care services into mainstream health, specifically PHC, has been embraced by many countries, current literature, however, cautions that some issues need to be considered and suggests that successful integration would require supervision of nurses by more skilled personnel, such as advanced mental health nurses, and availability of referral services for more complex problems (WHO, 2008b, Rwandan Ministry of Health 2005, 2009).

It has been suggested that the integration of mental health services into PHC generates good health care outcomes, particularly when there is a linking network of services between primary and secondary levels of care (Uys & Middleton, 2004; WHO, 2008b). Such integration would rely heavily on nurses for its implementation (Ssebunnya et al., 2010; Lund, Kleintjes, Kakuma, Flisher, & the MHaPP Research Programme Consortium, 2010; Petersen et al., 2009). The WHO (2011) reporting that nurses (psychiatric and non-psychiatric) globally represent the most prevalent professionals working in mental health sector, estimated at 5.8 per 100000 population. That the implementation of this integration is largely done by nurses is of special consideration in the context of Rwandan mental health care.

Rwanda began the process of integrating mental health services into district hospitals and health centres in late 2005 (Rwandan Ministry of Health, 2005). The Rwandan Ministry of Health recognized that mental health is a component of the Essential Health Care Package. In addition, the Rwandan Ministry of Health (2005) acknowledged the nurse as the team member who has the most contact with the mental health care users (MHCUs), both in inpatient and outpatient settings. Nevertheless, Rwanda is facing a challenge related to the shortage of mental health practitioners, specifically nurses. The mental health nurse to population ratio is reported to be 0.8 mental health nurses per 100000 of the population (WHO, 2005), while the general nurse-population ratio in Rwanda is estimated at 58.8 general nurses per 100000 population (Rwandan Ministry of Health, 2009). This comparative shortage of mental health nurses has resulted in the integration of mental health services relying on general nurses. Despite current literature suggesting that the integration of mental health care services into general healthcare settings, specifically PHC, will reduce stigmatizing attitudes towards mental disorders, there have been consistent reports that one of the barriers of integrating mental health care into mainstream healthcare has been health care professionals' negative attitudes towards persons diagnosed with

mental disorders (Kapungwe, Cooper, Mayeya, Mwanza, Mwape, & Sikwese, 2010; Ssebunnya et al., 2010). Stigma was first defined by Goffman (1963) as being a mark of shame. Link, Yang, Phelan and Collins (2004) built on this concept and suggested that stigma includes components of labelling, stereotyping, separating, emotional reactions and discrimination. Current authors maintain that stigma related to mental disorders is a social construct whereby the general population develops negative stereotypes about a specific group, in this instance people with mental disorders, that leads the stigmatising group to act against the stigmatised group (Corrigan, Kerr, & Knudsen, 2005; Smith & Middleton 2010; Switaj, Wciorka, Grygiel, Anczewska, Schaeffer, Tyczynski, & Wisniewski, 2012; Bjorkman, Angelman, & Jonsson, 2008).

Current literature suggests that health care providers, including nurses, are not immune to these social prejudices and that they have the same negative attitudes as the general public regarding mental disorders (Arvaniti, Samakouri, Kalamara, Bochtsou, Bikos, & Livaditis, 2009). Literature related to nurses in non-specialised health care settings suggests that these nurses perceive persons with mental disorders to be difficult, threatening, disruptive, dangerous and unpredictable (Arvaniti et al., 2009; Bjorkman et al., 2008; Sharrock & Happell, 2006). Other studies report the general nurses' emotional reactions to include fear and inadequacy, specifically towards MHCUs who self-harm (Sharrock & Happell, 2006). A recent Zambian study of health care providers, mainly nurses, reported that 55% to 75.6% of nurses displayed discriminatory behaviour that manifested in separatist behaviour, lack of collaboration and authoritarian attitudes (Kapungwe et al., 2010). Such prejudices impact on the treatment experience and mental health care outcomes for the MHCUs.

Studies have reported that MHCUs feel that they are treated with disrespect and ignored to the extent that physical complaints are disregarded as imagination (Bjorkman et al., 2008). MHCUs reported experiences of stigmatising attitudes from health care providers, such as being treated as incompetent, making them reluctant to seek the help of mental health care services (Bjorkman et al., 2008). This reduction of help seeking behaviour extends to non-adherence to psychotropic drugs and the adherence to long term treatment is reported being less than 50% in developing countries (WHO, 2003; MacNeela, Scott, Treacy, Hyde, & O'Mahony, 2012; Corrigan, 2007). Mental health care users have reported that stigmatizing attitudes amongst mental health care providers prevail within the practitioner MHCU relationship. MHCUs report practitioners'

authoritarian attitudes and how they are expected to follow instructions with little to no information sharing regarding their illness and the possible treatment options or alternatives regarding follow up care in the community (Bjorkman et al., 2008; Schulze, 2007a). These authors make specific reference to the impact of a psychiatric label on the treatment plan, reporting that a person who receives a psychiatric diagnosis is thus labelled mentally disordered is frequently given an unfavourable prognosis suggestive of chronicity and the impossibility of recovery. It is suggested that the prejudice that results in the MHCUs' lack of engagement with treatment leads to the increased prevalence of mental disorder due to relapse and chronicity of the diseases (Thoits, 2005; WHO, 2003; MacNeela et al., 2012).

Clearly the attitudes of mental health care practitioners, specifically nurses, to persons with a mental disorder play a role in the initiation of treatment and the illness trajectory, and thus the mental health care outcomes. As nurses are the main providers of mental health care, particularly in low and low to middle income countries, it has been suggested that it is important that the extent of negative attitudes amongst nurses be determined to inform stigma reduction strategies (Rüsch, Angermeyer, & Corrigan, 2005). Current literature suggests that stigma reduction strategies will contribute to reducing the negative consequences of mental disorder stigma (Rüsch et al., 2005; Schulze, 2007b). As discussed in more detail in the literature review, the main focus of these strategies seems to include education about mental illness and familiarity, or level of contact, with a person with a mental disorder as positive mediators of stigmatising attitudes (Arvaniti et al., 2009; Corrigan, Edwards, Qreen, Diwan, & Venn, 2001; Holmes, Corrigan, Williams, Canar, & Kubiak, 1999; James, Omoaregba, & Okogbenin, 2012). Familiarity is considered as the level of contact with a person with a mental disorder (Corrigan et al., 2001; Holmes et al., 1999; James et al., 2012). These authors stress the role of social factors like media contact, network, education, and experience or direct contact with a person with a mental disorder in creating knowledge or awareness and thus influencing the stigma process.

1.2. Problem statement

Mental disorders affect hundreds of millions globally, impacting on communities and individuals and their families, and can result in disability and economic loss (Varcarolis, Carson, & Shoemaker, 2006; WHO, 2008b). Because of the impact of the genocide on the mental health of

the population, Rwanda faces great challenges in meeting the mental health care needs of its citizens (Rwandan Ministry of Health, 2011). Furthermore, these mental health care needs are to be met within the context of limited material and human resources, specifically mental health care nurses (WHO, 2005). The Rwandan Ministry of Health has taken cognizance of the WHO recommendation of integration of mental health into primary health care settings as an affordable and accessible option for offering mental health care services (Ssebunnya et al., 2010; WHO, 2005; WHO, 2008b; Rwandan Ministry of Health, 2009, 2011). This means that mental health care is offered at different levels, including district hospitals and health centres, where health care providers of these services are predominantly trained general nurses (Rwandan Ministry of Health, 2009).

Current literature reports that nurses displaying stigmatising behaviour towards a person with a mental disorder is a barrier to the implementation of effective mental health care services within main stream health care settings (Kapungwe et al., 2010; Ssebunnya et al., 2010). There is no research regarding the attitudes of nurses to MHCUs within the Rwandan context. At this time when the ministry is rolling out the inclusion of mental health services at the different levels within the main health care services, it is suggested as pertinent to establish if negative attitudes amongst nurses could pose a potential barrier.

1.3. Purpose of the study

The purpose of this study was to identify and describe stigmatising attitudes held by nurses towards persons with mental disorders in a selected district hospital in Rwanda, and to analyse the potential mediating effects of socio-demographic factors on these stigmatising attitudes in order to inform the development of stigma reduction initiatives aimed at improving mental health care services and outcomes.

1.4. Research objectives

The research objectives were twofold:

- i. To describe stereotypical attitudes amongst nurses regarding persons with a mental disorder

- ii. To explore relationships between specific socio-demographic factors (age, gender, qualification, years of nursing experience and familiarity) and nurses' stigmatizing attitudes towards persons with mental disorders in a selected district hospital in Rwanda.

1.5. Research questions

The research questions pertaining to the first objective are:

- What stereotypical attitudes are most or least evident amongst nurses?
- To what extent do nurses' attitudes reflect an openness and willingness regarding integration of mental health care into a district hospital setting?
- To what extent do nurses' attitudes reflect fear and avoidance related to persons with mental disorders?

The research questions pertaining to the second objective are:

- What demographic variables have a mediating effect on negative stereotypical attitudes held by nurses towards people with mental disorders?
- Does familiarity mediate negative stereotypical attitudes held by nurses towards persons with mental disorders?
- What demographic variables are more or less evident as potential mediators of stigmatizing attitudes?

1.6. Significance of the study

Although some studies related to stigmatizing attitudes associated with mental disorders have been conducted in African countries such as Nigeria (Ukpong & Abasiubong, 2010), Uganda (Ssebunnya et al., 2010), Zambia (Kapungwe et al., 2010) and South Africa (Hugo et al., 2003; Smith & Middleton, 2010), only some of these relate to health care professionals' stigmatizing attitudes (Kapungwe et al., 2010; Ssebunnya et al., 2010; Ukpong & Abasiubong, 2010). Others relate to stigmatizing attitudes of the general population (Hugo et al., 2003) and potential employers (Smith & Middleton, 2010). As no studies have yet been done in Rwanda, the findings from this study may build on foundation stigma literature, specifically the body of knowledge that is growing in Africa, and can influence further research on stigma issues,

specifically within Rwanda. Given that nurses' stigmatizing attitudes are suggested to constitute public stigma (Arvaniti et al., 2009; Switaj et al., 2012; Kapungwe et al., 2010) the findings from this study will increase the body of knowledge in this area.

It is possible that the extent and nature of negative attitudes could be used towards the development of local knowledge about stereotypes and this could be integrated into curricula of undergraduate nursing education, specifically the development of mental health nursing modules and continuous professional education programmes. For example, should increase educational input be associated with less negative stereotypes regarding mental disorders, this could be used to determine training courses and their content.

Knowledge regarding the mediating effects of familiarity could be used to inform practical placements within nursing modules. By participating in the study, it is suggested that the reflexivity of participants (nurses) may be enhanced and this in turn could influence their practice regarding mental health care users located both in the hospital setting and towards those living within the community. Of particular relevance are nurses in district hospitals. The findings of this study may be used by hospital management to develop policies, plans, strategies and appropriate anti stigma programs aimed at improving the attitudes of nurses towards persons with mental disorders. This in turn will improve the quality of care in favour of mental health.

1.7. Operational definitions

1.7.1. *Attitude* can be defined as a disposition or an intention to respond favourably or unfavourably to an object, person, institution or an event, and negative intention may lead to stigmatisation (Ajzen, 1988; Arvaniti et al., 2009).

1.7.2. A *Nurse* is a person who is prepared in the scientific basis of nursing and who meets certain prescribed standards of education and clinical competence to provide services that are essential to promote, to maintain, and to restore health and well-being of people, families and the community (WHO, 2008b). For the purpose of this study, the term general nurse includes nurses of all categories who have completed a course in nursing that is recognised by the National Council of Nurses in Rwanda (Rwandan National Council of Nurses and Midwives, 2008).

1.7.3. *Mental disorder*

In this study, mental disorder refers to clinically significant behavioural and psychological problems experienced by the individual and that cause distress, disability or loss of freedom (Varcarolis et al., 2006).

1.7.4. *Familiarity*

In the present study, familiarity refers to the level of contact with a person with a mental disorder that determines the knowledge of and experience with the mental disorder (Corrigan et al., 2001, Holmes et al., 1999; James et al., 2012).

1.7.5. *Stigmatizing attitude*

In this study, stigmatising attitudes refer to negative evaluation and intentions regarding persons with mental disorders (Arvaniti et al., 2009).

1.8. Conceptual framework

A conceptual framework, illustrated in figure 1, page 11, has been used to guide this study. The framework has been drawn and adapted from current stigma literature, specifically the work of Link and colleagues and Corrigan and colleagues (Corrigan et al., 2001; Link & Phelan, 2001; Martin, Persicosolido, Olafsdottir, & Mcleod, 2007; Corrigan et al., 2005; Link et al., 2004). The stigma process consists of five components; labelling, stereotyping, separating, emotional reactions and discrimination (Link & Phelan, 2001; Link et al., (2004). The labelled person is ‘given’ undesirable characteristics by the application of negative stereotypes.

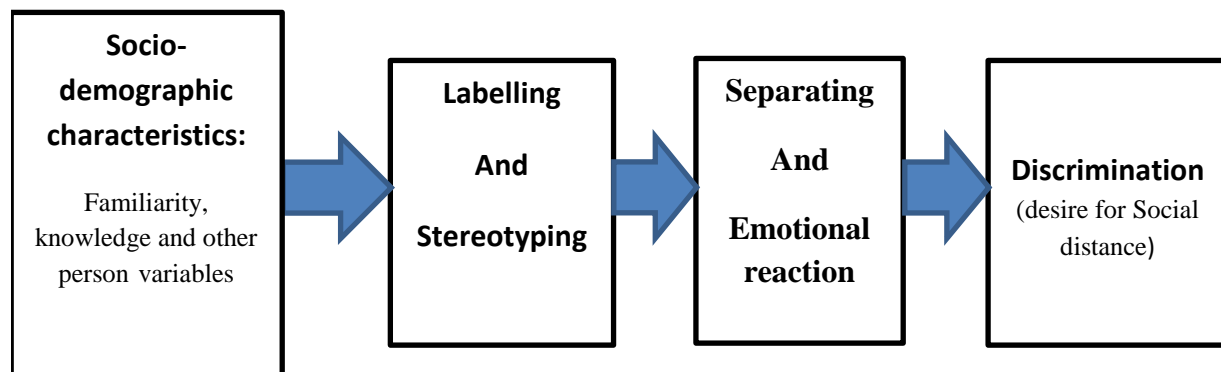


FIGURE 1 : The stigma components and process. Adapted from the work of Link and Phelan (2001).

Literature suggests that the extent of negative stereotypes (beliefs and attitudes) and prejudice (the agreement with beliefs and resultant negative emotional reaction) are associated with labels given to mental disorder (Link et al., 2004; Link & Phelan, 2001). Stereotypes are manifested by beliefs related to the cause of mental disorder, its nature, outcomes and the importance of treatment and social support (Link & Phelan, 2001; Link et al., 2004; Corrigan et al., 2005). Dangerousness, incompetence and weakness of character are the main stereotypes given to people with mental disorders, while emotional reactions reported include anger, fear, irritability and pity (Martin et al., 2007; Morris, Scott, Cocoman, Chambers, Guise, Valimaki, & Clinton, 2011). According to Link et al., (2004) and Link & Phelan (2001), labelled people are considered as **distinguishable** categories of people that justifies the degree of separation of “us” from “them”. Stereotypes and prejudice are reported to determine the nature of social actions regarding persons with mental disorders. Such discrimination leads **leads to inequality, such as disfavour of persons with mental disorders in provision of community services** (Corrigan, 2007; Corrigan, Markowitz, & Watson, 2004).

A common method for determining the extent of discrimination is to measure the desire for social distance. Desire for social distance is defined as the lack of desire or willingness to interact with persons with mental disorders in different types of relationships, including social and occupational activities (Corrigan et al., 2001; Corrigan et al., 2005; Corrigan et al., 2004; Link et al., 2004; Link & Phelan, 2001). As described in the introduction to the study, various studies have reported on the potential positive mediating effects of specific demographic variables, such as education and familiarity (Holmes et al., 1999; Corrigan et al., 2001, Link & Phelan, 2001; Link et al., 2004; Corrigan et al., 2005; Martin et al., 2007).

1.9. Application of conceptual framework to this study

As illustrated in figure 2, this study focuses on the stigma component of stereotyping as it relates to beliefs of nurses towards persons with mental disorders. In addition, the study focuses the potential mediating effect of demographic variables, specifically familiarity, and negative stereotypes.

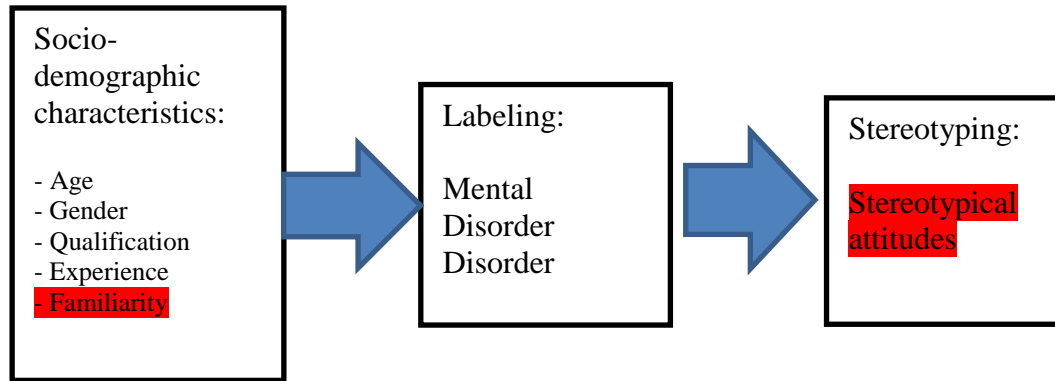


FIGURE 2: Conceptual framework applied to this study

1.10. Summary of the chapter

The aim of this chapter was to highlight the background to the problem of nurses' stigmatising attitudes towards persons with mental disorders, drawing from international, and local African literature. The aim, objectives, research questions and conceptual framework have been presented and discussed. The stigma process has been operationalized within the conceptual framework. The next chapter explores the literature with respect to stigmatising attitudes, integration of mental health into general health care settings in Rwanda and mental disorder stigma. Stigma components, the stigmatizing process and anti-stigma initiatives are also discussed in this chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

The literature search was done using the following electronic databases: CINAHL (Cumulative Index to Nursing and Allied Health Literature), MEDLINE (Medical Literature Online), Health sources: Nursing and academic edition, ISI web of knowledge, Nursing and Allied Health Sources (ProQuest), PsycINFO (Psychology Information) and Google scholar, as well as printed materials, such as books and articles (Polit & Beck, 2012). Key phrases used in the search included: ‘Mental health integration district hospital (and barriers to) in Rwanda’; ‘Mental health integration primary health care (and barriers to)’; ‘nurses and health care professionals’ attitudes to MHCUs’, ‘mental disorder related stigma’ in general and ‘stereotyping’ specifically and ‘anti-stigma interventions’.

This chapter begins with an overview of the development of mental health care in Rwanda. It then continues to explore the current integration of mental health care services into mainstream health care, specifically within the low and low to middle income countries, such as Rwanda. Focus has been placed on caring for people with mental disorders in general health care settings and the experiences of nurses who are faced with providing such care. The stigma associated with mental disorders is discussed as being a potential barrier to successful integration of mental health services into mainstream health care and current literature on anti-stigma interventions has been explored and presented.

2.2. The development of mental health care in Rwanda

Mental health care in Rwanda has been characterized by four important periods; pre-colonialism, colonialism, asylum psychiatry and the current contemporary period (Rwandan Ministry of Health, 2011). During the pre-colonialism period, mental health care was provided through traditional practice and community members, led by traditional healers, made efforts to alleviate individual cases. The colonial period that followed failed to recognize the value of traditional practice, but offered few effective alternatives, with the result that persons with mental disorders became enmeshed within the criminal justice system.

The twentieth century saw the beginning of the asylum period when the ‘Brothers of Charity at Ndera’, a non-government organization (NGO), took control of the development of asylums and provision of mental health care. Although psychiatric hospitals were erected, this was done without the development of government legislation to guide or control mental health care practice (Rwandan Ministry of Health, 2011). This mental health care system remained in place until the genocide of 1994, when the destruction of infrastructure and migration of human resources left the country with challenges related to trauma, limited centralized mental health care services and no decentralized mental health care services to address these (Rwandan Ministry of Health, 2009, 2011). The Rwandan health ministry considers the contemporary period as beginning in 1995. It is characterized by significant commitment from political leaders and the development of a mental health policy that recognizes traditional roles as well as western health care practices (Rwandan Ministry of Health, 2009, 2011).

Although the Rwandan Health Ministry refers to ‘mental disorder’ rather than ‘mental illness’, this general concept is classified according to the current international DSM-IV definition. Mental disorder refers to a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and is associated with present stress or disability or with a significantly increased risk of suffering death, pain, disability or an important loss of freedom (American Psychiatric Association, 2000; Spitzer, Gibbon, Skodol, Williams, First, 2002; Stein, 2008; Stein, Phillips, Bolton, Fulford, Sadler, & Kendler, 2010). Not surprisingly, considering the legacy of the 1994 genocide, national mental health intervention is considered to be urgent and the most common local mental disorders include anxiety disorders, mood disorders and substance abuse (Bolton, Neugebauer & Ndogoni, 2002; Cohen, Fabri, Cai, Shi, Hoover, & Binagwaho, 2009; Mutabaruka, Sejourne, Bui, Birmes & Chabrol, 2012; Munyandamutsa et al., 2012). The above authors report high prevalence rates (28.4%) of post-traumatic stress disorder (PTSD) with co-morbid depression (between 15.5% - 53.93%). In addition, substance dependence is reported as higher in persons suffering with PTSD, 7.6% versus 3.5% (Munyandamutsa et al., 2012). Within this context, the political commitment to address the mental health care needs of the population resulted in a coordinated National Program of Mental Health (PNSM) and the year 2005 saw the decentralization of services into community and primary health care (PHC) settings (Rwandan Ministry of Health, 2009, 2011). This process

began with the Ministry of Health's recognition that mental health is a component of the Essential Health Care Package (Rwandan Ministry of Health, 2009).

Currently, mental health services are provided within a decentralized framework that includes local community health centers, district hospitals and specialist hospitals. Community health centers, working under the control of district hospitals, are responsible for community health workers, their coordination, training and supervision. District hospitals working under the control of Ministry of Health are responsible to provide accessible and acceptable medical care and supervision of people with acute crisis of mental disorders in the same way that these facilities manage acute physical clinical conditions. District hospitals also have responsibility for coordination, supervision and evaluation of the community health centers and function as the referral health facilities for the community health centers and they, in turn, transfer complicated psychiatric clinical conditions to the specialist hospitals. There are only two specialists referral hospitals (the Ndera Neuropsychiatric Hospital and the Psycho-Social Consultation Services) in Rwanda that receive all psychiatric clients from district hospitals (Rwandan Ministry of Health, 2005, 2009, 2011; Drobac, Basinga, Condo, Farmer, Karen, Hamon, & Binagwaho, 2013). Within this system, there is a shortage of trained, experienced mental health care practitioners as Rwanda is facing a specific challenge related to the shortage of mental health nurses and other specialized professionals in mental health care. Only 0.8 mental health nurses per 100000 population are serving the Rwandan population (WHO, 2008b).

The mental health community integration applied in Rwanda is suggested to be in alignment with the model described by Funk, Saraceno, Drew, & Faydi (2008) and Lazarus & Freeman (2009). Within this model, community health workers identify persons with mental disorders within the community and provide informal counselling and psycho-education. If deemed necessary, MHCUs are referred by these community health workers to mental health nurses within the district hospitals, who are responsible for providing specialised interventions, such as essential psychotropic medication, formal counselling and psychotherapeutic interventions (Lazarus & Freeman, 2009, Rwandan Ministry of Health, 2009; WHO, 2010). Where the Rwandan system differs from this model, however, is the shortage of nurses who have been trained in mental health within the district hospital setting.

Although the integration of mental health services into a decentralized community model has been implemented in Rwanda, challenges remain (Rwandan Ministry of Health, 2011). It has been suggested that meeting the mental health care needs of the population is not only reliant on decentralization, but also the successful integration of mental health care services into general health care facilities and on the commitment and knowledge of general health care practitioners within these settings (Lazarus & Freeman, 2009).

2.3. Integration of mental health care into general health care facilities

Global statistics suggest that approximately 450 million people suffer from mental and neurological disorders (Lazarus & Freeman, 2009). Life time prevalence ranges from 12.2% - 48.6%, twelve month prevalence between 8.4% - 29.1 %, a total global burden of disease estimated at 14% (Lazarus & Freeman, 2009). The integration of mental health services to primary and community level has been advocated to narrow the gap between the prevalence of mental disorders and care available (Lazarus & Freeman, 2009). WHO (2008b) suggested that ‘primary health care for mental health’ refers specifically to mental health services that are integrated into general health care at primary care level, such as health centres or clinics and district hospitals. These centers and hospitals provide non-specialist services, both inpatient and outpatient, as well as the usual range of community services (WHO 2008a). The WHO (2008b) acknowledges barriers to such integration, specifically lack of political support, inadequate management, overburdened health services, and resistance from policy-makers and health workers.

International and local literature makes specific reference to limited financial and human resources as significant barriers to the integration. Current international literature (Lazarus & Freeman, 2009; Kiima & Jenkins, 2010; Jenkins, Baingana, Ahmad, McDaid, & Atun, 2011) and African literature (Ssebunnya et al., 2010; Mwape, Sikwese, Kapungwe, Mwanza, Flisher, Lund, & Cooper, 2010) suggested that the allocation of a limited budget within the reality of scarce resources for mental health in developing countries is an important barrier for providing mental health care within primary health care facilities. For example, a Ugandan study by Ssebunnya et al. (2010) revealed that only 1% of health expenditure was allocated to mental health, and that the bulk of this 1% was spent in urban areas. This affects mental health care provision in terms

of appropriate infrastructures, equipment and essential resources, such as psychotropic medication. In addition to material resources, Kigozi & Ssebunnya (2009) and Ssebunnya et al. (2010) stressed that the shortage of specialised mental health care practitioners is a critical barrier to the integration of mental health services into general hospitals in developing countries. These authors argue that most general health workers are not equipped with the knowledge and skills needed to handle persons with mental disorders.

Despite these potential barriers, current literature **suggests** various reasons for integration of mental health into general health care facilities (WHO, 2007; Bower & Gilbody, 2005; WHO 2008b; Funk et al., 2008; Patel, Belkin, Chockalingam, Cooper, & Saxena, 2013; Kigozi, & Ssebunnya, 2009; Mwape, Mweembe & Kasonde, 2012). Firstly, integration ensures that people are treated in a holistic manner and thus makes treatment of comorbid physical and mental conditions possible (WHO, 2008b). Secondly, accessibility promotes respect of human rights, affordability, cost effectiveness, and an increase in human resource capacity, thus generating good health outcomes (WHO, 2007; Bower & Gilbody, 2005; WHO, 2008b; Funk et al., 2008; Patel et al., 2013). Thirdly, primary, secondary and tertiary prevention of mental illness is enhanced through early detection, intervention and follow up, which therefore reduces chronicity (WHO, 2007; Funk et al., 2008, Patel et al., 2013). Lastly, it has been suggested that integrating mental health care into general health care facilities will reduce the stigma related to mental disorders for the MHCUs, their families and the health care providers (WHO, 2007; Bower & Gilbody 2005; Funk et al., 2008; Kigozi, & Ssebunnya, 2009; Mwape et al., 2012).

It has also been suggested that integrating mental health care into community services allows the MHCUs and their families to achieve improved social integration. In addition, increased community member and general health care practitioner contact with persons with mental disorders is suggested to have a mitigating effect on negative stereotypes associated with the mental disorders that these persons may hold (Pettigrew, 1998; Corrigan et al., 2001; Holmes et al., 1999; Overton & Medina, 2008; Kigozi & Ssebunnya, 2009). Clearly, integration of mental healthcare into general health care community settings requires strategic planning, specifically the preparation and development of general nurses to respond to MHCU needs (WHO, 2008b).

2.3.1. Preparing general nurses for integration

Current authors suggest that strategies to implement integration include staffing, training and supervision (Funk et al., 2008; Lazarus & Freeman, 2009; Ssebunnya et al., 2010). Within low and low to middle income countries, it is necessary that generalist and auxiliary nursing staff are prepared for integration of mental health into general health care facilities (Mwape et al., 2010). Research indicates that general nurses need training by mental health specialists (advanced mental health nurses) to develop knowledge and skills to implement effective mental health care (Bower & Gilbody, 2005; Jenkins, Kiima, Njenga, Okonji, Kingor, Kathuku & Lock, 2013; Kiima & Jenkins, 2010, Mwape et al., 2010). In a study conducted amongst health care providers, including nurses, in Zambia, Mwape and colleagues (2010) revealed that 91% of participants were of the opinion that successful integration of mental health into general health care requires increased training in detection and management of mental disorders.

Several of these authors suggest that rather than a demarcated training period, training should be combined with ongoing supervision and consultation in order to upskill non-specialised staff practice, and identify systemic barriers and solutions that may hinder practice change (Bower & Gilbody; 2005; Lazarus & Freeman, 2009; Kiima & Jenkins, 2010). Both international and local literature suggested that stigma towards persons with mental disorders remains a critical barrier, individual and systemic, to integration (Lazarus & Freeman, 2009; Kigozi & Ssebunnya, 2009; Mwape et al., 2010, Kapungwe et al., 2010).

2.4. Stigma and mental disorders.

Stigma is a social construct, defined by Irving Goffman (1963) as a mark of shame (Overton & Medina, 2008). Current literature has expanded on stigma constructs and consequences of stigmatizing attitudes relating to mental disorders. In Chapter one (p, 11), the conceptual framework briefly introduced the stigma components as outlined by Link and Phelan (2001). The stigma process consists of five components; *labelling, stereotyping, separating, social prejudice, and discrimination* (Link & Phelan, 2001; Link et al., 2004; Abbey, Charbonneau, Baici, Layla Dabby, Gautam, & Paré, 2011). According to Link et al. (2004) the final result of the stigma process is that because it emphasises differentness, the construction of stereotypes and the separation of labelled persons into distinct categories, the associated disapproval, rejection,

exclusion and discrimination acquire social, political and economic power that can result in difficulties accessing housing, employment and other societal roles (Link et al., 2004; Kakuma, Kleintjes, Lund, Drew, Green, Flisher, & MHaPP Research Programme Consortium, 2010). In order to explore this process each stigma component is unpacked

Distinguishing differences and labelling consists of social selection of human differences within society that could be composed of many categories or groups and which ends by the identification of differences that are relevant to the society (Link et al. 2004). The above authors suggested that different groups are created based on skin colour, gender, origin, diseases or any other identification or factor that could be used to generate differences among various groups within a society. Social differences are identified and a group(s) of people or an individual(s) is/are given labels or cues that may be something physical or observable (Overton & Medina, 2008; Link et al., 2004). For instance, Overton & Medina (2008) argue that the cue can be a psychiatric symptom, a deficit in social skills or a difference in physical appearance.

Labeling is the first step of the stigma process regarding people with mental disorders as they are perceived by the public to be distinctive in terms of personality and behavior. This leads others to start labeling them to show that they are different (Switaj et al., 2012; Bjorkman et al., 2008; Link et al., 2004; Abbey et al., 2011). Persons with mental health disorders have been the subject of labeling for a long time as members of the general public have highlighted their condition to show that they are different from other members of society (Rose, Thornicroft, Pinfold, & Kassam, 2007; Bjorkman et al., 2008).

In a study conducted in the UK, Rose and colleagues (2007) found 250 labels associated with mentally ill people, with the most popular derogatory terms including nuts, psycho, crazy, loony, weird, freak and screw loose. Such labeling leads to negative stereotypes.

Stereotyping is the second component in the stigma process in which human differences become associated with negative attributes and this occurs specifically when differences that have acquired derogatory labels are ‘given’ undesirable characteristics, or in other words, negative ***stereotypes***. Based on their dominant cultural beliefs, people link the labeled person to undesirable characteristics to show that he/she represents a risk to normal society (Corrigan et al., 2005; Link et al., 2004). The extent of negative stereotypes (beliefs and attitudes) and the extent of prejudice (the agreement with beliefs and resultant negative emotional reaction) are

associated with labels given to mental disorder (Link et al., 2004; Link & Phelan, 2001). These stereotypes are defined as knowledge structures and learned by most members of a social group and are manifested by beliefs related to the cause of mental disorder, its nature, outcomes and the importance of treatment and social support (Link & Phelan, 2001; Link et al., 2004; Corrigan et al., 2005; Overton & Medina, 2008). Dangerousness, incompetence and weakness of character are some of the main stereotypes given to MHCUs, while emotional reactions reported include anger, fear, irritability and pity (Martin et al., 2007; Morris et al., 2011).

Separating is the next component of the stigma process, as indicated by Link and colleagues (2004). Link and Phelan (2001) suggest that labelled people are considered as a distinguished category of people that justifies the degree of *separation from “us” to “them”*. *Social prejudice* comes from the cognitive and affective responses to stereotypes in which the common affective response is disgust, which is taken as a defensive emotion. It is often followed by fear of contamination or an overwhelming wish to avoid what is judged as unacceptable or offensive. The disgust can be replaced by pity, courtesy or other emotions that are created as the outcome of prejudice. Some people verbalise their prejudice by statements such as “I hate them” or “they are dangerous and I am afraid them” and these are commonly considered as examples of strong emotion toward a targeted group of people (Overton & Medina, 2008).

In mental health related stigma, stereotypes and prejudice are reported to determine the nature of social actions regarding persons with mental disorders. Such *discrimination* leads to unequal outcomes (Corrigan, 2007; Corrigan et al., 2004; Overton & Medina, 2008). A common method for determining the extent of discrimination is to measure the desire for social distance and this takes its origin from the social prejudice. For example, fear, one of the strongest emotions, leads to behaviour responses such as social distancing. Desire for social distance is defined as the lack of desire or willingness to be in interaction with persons with mental disorder in different types of relationships, including social and occupational activities (Corrigan et al., 2001; Corrigan et al., 2005; Corrigan et al., 2004; Link et al., 2004; Link & Phelan, 2001). In addition, a barrier is created between the majority group and the stigmatized group and this is characterised by avoidance, which is the most common action the majority group can take, and the stigmatised group becomes the out-group or marginalised.

Stigma is categorised into three types, public stigma, self-stigma and structural or institutional stigma (Link & Phelan, 2001; Camp, Finlay, & Lyons, 2002; Corrigan et al., 2004; Overton & Medina, 2008). The first type, **public stigma**, refers to social identity theory and is applied where people use meanings constructed by society (social constructs) to judge and label someone who is different or disfavoured (Link & Phelan, 2001; Corrigan et al., 2005). In essence, societies, or large groups within the societies, evaluate persons to determine if they fit the society norms (Link & Phelan, 2001; Camp et al., 2002; Corrigan et al., 2005). According to Overton and Medina (2008), stigmatised people become outcasts because they are frequently dishonoured and disfavoured within their society. Secondly, **self-stigma** is an internal evaluation process of stigmatised people whereby they judge themselves negatively due to messages received from the norms of the society (Camp et al., 2002; Corrigan et al., 2005). These individuals develop feelings that they are unable to 'fit in' or live with others within their community (Corrigan et al., 2005). Their self-efficacy is also affected and consequently these people lose self-confidence, exhibit feelings of inferiority, self-hate and shame (Corrigan et al., 2005). Thirdly, **structural stigma** works as system and refers to the tangible barriers created against a group of people who are the object of stigma. Their human rights become restricted in many aspects, such as holding public office, purchasing power, employment, housing, marriage and parenting (Overton & Madina, 2008, Kakuma et al., 2010). Structural or institutional stigma describes the process of denying a group of persons (the out group) those things that other people (the in group) take for granted. Corrigan and colleagues (2004) stress that such an exclusionary process includes policies of private, governmental or public institutions that intentionally restrict the opportunities and rights of persons of stigmatised group.

2.4.1. Stereotypical attitudes associated with mental disorder

Mental disorder is one of the most stigmatized illnesses throughout the world. We learn from history that patients who suffered from psychiatric illness have been victims of horrific treatment, from being burned and beaten, to being thrown into the river to die. Literature suggests that people with mental health conditions are a group of patients who are particularly susceptible to negative attitudes, stereotyping and consequently stigma and that this constitutes a barrier not only to their psychosocial rehabilitation, but also to their recovery process in general (MacNeela et al., 2012; Witaj et al., 2012; Bjorkman et al., 2008).

The findings of several international research studies (Hugo et al., 2003; Liggins & Hatcher, 2005; Song, Chang, Yi, Shih, Yuan, Lin, & Yang, 2005; Veer, et al., 2006; Ross & Gardner, 2009; Adewayu & Makanjua, 2008, Hand & Tryssenaar, 2006; Tsang, Angell, Corrigan, Lee, Shi, Jin, Lam Shenghua, & Fung, 2007) and African research studies (Mavundla, 2000; Adewayu & Oguntade, 2007; Smith & Middleton, 2010; Barke, Nyarko, & Klecha, 2011; James et al., 2012) suggest that negative stereotypes towards persons with mental disorders are widespread, and commonly held by the general population. A study by Barke and colleagues (2011) used independent surveys to investigate attitudes of an urban population in Southern Ghana with regard to mental disorder and mentally ill people.

The original Community Attitudes towards Mental Illness (CAMI) scale was used as the tool of data collection and the sample consisted of 403 participants. While the findings of this study revealed a heterogeneous picture, negative views prevailed with respect to the nature and causes of mental disorder. Participants felt that the presence of mentally ill people might pose a risk and many people indicated that they did not want to live next door to a person with a mental disorder. However, the study also showed that the large majority of participants were benevolent in acknowledging that persons who were mentally ill deserved the best possible care.

In Taiwan, Song and colleagues (2005) conducted a study using a stratified proportional sampling design with a sample of 1,203 participants. Again, the original Community Attitudes towards Mental Illness (CAMI) scale was used as the data collection tool to investigate the stigmatizing attitudes amongst the general population towards mentally disabled people. The findings of this study indicated that the general population in Taiwan held relatively more benevolent attitudes, indicating that mental disorder is like any other illness; tended to be relatively tolerant in terms of having mentally ill rehabilitated in the community; and put less social restrictions on mentally ill persons, such as the right to vote. However, the results also revealed that participants were of the opinion that the mentally ill need a special kind of control and discipline.

This societal control is reflected in aspects of Rwandan legislation. For example, in Rwanda, MHCUs do not have the right to apply for election in various levels of administration and they cannot be enrolled in security services, such as police and military services (Rwandan National

Election Commission (RNEC), 2011). They are therefore excluded from these services. This is supported by Corrigan and colleagues (2004), who presented the results of studies from 50 countries showing that there are laws restricting the civil rights of people with mental disorders in areas such as voting, holding elective office, serving jury duty, parenting and remaining married. It is suggested that structural stigma is also reflected in budget allocation, limited budgets or financial resources for mental health services and research Corrigan and colleagues (2004). This is an important concern for low income countries where less than 1% of the total national budget is allocated to mental health care, which is not enough to facilitate the implementation of community based care facilities and supportive resources. Only 51.7% of countries, globally, have community mental health services (Ssebunnya et al., 2010; WHO, 2005; Petersen et al., 2009). Within this context mental health care has become the responsibility of general health care community settings, general health care professionals **providing** mental health care services.

Health care providers, including nurses, are not immune to social prejudices and have the same negative attitudes as the general public regarding mental disorders (Arvaniti et al., 2009). Although nurses are expected to help persons with mental disorders and be involved in anti-stigma initiatives, according to Overton & Medina (2008), health care professionals, especially those in the field of mental health, subscribe to the same stereotypes about mental disorder as the general public and can be guilty of stigma themselves. Literature related to nurses in non-specialised health care settings suggest that nurses perceive persons with a mental disorder to be difficult, threatening, disruptive, dangerous and unpredictable (Arvaniti et al., 2009; Bjorkman et al., 2008; Sharrock & Happell, 2006). Other studies report the general nurses' emotional reactions to mentally ill patients include fear and inadequacy, specifically towards MHCUs who self-harm (Sharrock & Happell, 2006). This is a serious issue as nurses are the main mental health care providers, specifically in low and low to middle income countries. They should, therefore, be the first group of people targeted for initiatives/programs undertaken that are aimed at reducing stigma within the society (Rüsc et al., 2005). According to Arvaniti and his colleagues (2009), more sensitization and information are important, urgent and needed to reduce stigma among health care providers. Nurses need to become more aware of the needs of mentally ill persons and the impact diagnosis, discrimination and stigmatization have on their lives. The above authors agree that familiarity or contact is a strong factor alleviating negative attitudes

towards MHCUs as is training aimed at increasing people skills in recognizing the psychological problems of MHCUs and in handling them. Although no study has been conducted in Rwanda on stigma towards mental disorders, specifically stereotypical attitudes of general health care workers regarding mental disorders, studies that have been conducted in Africa suggest that negative stereotypes associated with mental disorders are prevalent (Kigozi, & Ssebunnya, 2009; Mwape et al., 2010, Kapungwe et al., 2010; Ukpong & Abasiubong, 2010).

A study conducted in Zambia reported that 55% to 75.6% of nurses displayed discriminatory behaviour manifested in separatist behaviour, lack of collaboration and authoritarian attitudes (Kapungwe et al., 2010). Such prejudices impact on the treatment experience and mental health care outcomes for the MHCU. Another study conducted in Nigeria investigated stigmatising attitudes towards the mentally ill amongst health care providers in the Nigerian University Teaching Hospital. This study reported negative stereotypes towards mentally ill people, with participants mostly being authoritarian and restrictive in their attitudes and placing emphasis on custodial care (Ukpong & Abasiubong, 2010). Mwape et al. (2010) highlighted stigmatising attitudes such as fear and avoidance towards people with mental disorders which may underlie some health care providers' reservations regarding integration. In this study, more than two thirds of the respondents (68.4%) reported feeling uncomfortable attending to mentally ill people, 19.8% being extremely uncomfortable and 48.6% uncomfortable. This discomfort is suggested to be associated with negative stereotypes associated with mental disorders, specifically perceptions of aggressive and destructive behavior, agitation and disorientation linked with unpredictability (Kaltiala-Heino, Tuohimaki, Korkeila, & Lehtinen, 2003; Happell & Koehn, 2010; Dumais, Larue, Drapeau, Menard, & Giguereallard, 2011). Kigozi, & Ssebunnya (2009) found widespread negative stereotypes towards the mentally ill and this is suggested to play a significant role in **retarding** the integration of mental health care services into general health care facilities.

Camp and colleagues (2002) suggest that MHCUs may internalise negative representations of mental disorder before they get labelled by the public and, in anticipation of devaluation and discrimination, they adopt strategies to cope. These strategies can include withdrawal, secrecy or educating others which in turn impact **upon** other functions like social interaction and employment. However, the above authors stress that MHCUs do not accept that they have a

mental disorder and this is associated with their sharing the unfavourable representations of mental disorder found in the wider community.

2.5. Stigma reduction interventions

Different strategies are used in anti-stigma initiatives and the main three approaches of these strategies include protest, education and familiarity (or level of contact) with a person with a mental disorder as positive mediators of stigmatising attitudes (Corrigan et al. 2001; Everton & Madina, 2008; Arvaniti et al., 2009; Holmes et al., 1999; James et al., 2012). Familiarity is considered as the level of contact with a person with a mental disorder (Corrigan et al., 2001; Holmes et al., 1999; James et al., 2012). These authors discussed the role of social factors like media contact, network, education, and experience or direct contact with a person with MHCUs in creating knowledge or awareness and influencing the stigma process.

Furthermore, anti-stigma strategies will provide both correct information about mental health and MHCUs and make different media accountable for their contribution to the stigma process so that they become specific tools to fight any kind of stigma. In a study conducted by Corrigan et al. (2001), findings showed that mass media is an important source of information as 90% of survey respondents reported that they had learned about mental disorder from the media. Despite the importance of mass media, however, Sakellari, Leino-Kilpi, & Kalokerinou-Anagnostopoulou (2011) mentioned an exhaustive list of activities or interventions that have been used for implementing educational programs. These activities include presentation, games, role playing, fact sheets, videos, classroom activities, interactive activities, games, discussions, talks, contact with MHCUs, workshops, lectures and posters. A study conducted by Evans-Lacko, London, Little, Henderson, & Thornicroft (2010) in evaluating a brief anti stigma campaign in Cambridge, UK, revealed various activities, such as advertising on local radio, at bus stops and in the local paper, advertising using beer mats and post cards, street art in the city centre and talking points around town and organizing short football tournaments or other sport activities which provide opportunities for young people to be in close contact. However, Overton & Medina (2008) suggested that more than one strategy is needed for an anti-stigma initiative to be effective as they maintain that education alone can change attitudes, but not behavior, while contact is suggested to change attitudes and behavior.

Overton & Medina (2008) and Corrigan & Watson (2002) argue that *protest* can be an effective strategy against stigma. Protest strategies highlight the injustices of various forms of stigma by chastising the offenders for their attitudes and behavior (Corrigan et al., 2005). Complaints or objections are made during public campaigns or individual dialogues appealing to the public to review their negatives stereotypes and stigmatizing attitudes. Protest can also take the form of advocating, whereby employers, leaders and policy makers promote the interests of mentally ill people. Furthermore, if the mentally disabled have been empowered and trained, they can also advocate for their rights to be respected, protected and enforced (Kakuma et al., 2010). The above authors mentioned examples of organizations that were actively involved in anti-stigma campaigns in South Africa. These include the Central Gauteng Mental Health Society (CGMHS) and the Cape Town Mental Health Society. The Central Gauteng Mental Health Society (CGMHS) is a consumer advocacy movement that was launched in 2005 and its members are composed of health care providers and consumer representatives (government & non-government) who do presentations in schools to increase awareness of mental illness.

The Cape Town Mental Health Society did much the same thing regarding advocacy, but also involved MHCUs as representatives in different institutions, such as being a member of the mental health board on provincial and hospital level and participating in catchment area meetings (Kakuma et al., 2010). Overton & Medina (2008) suggest that a combination of strategies is crucial in order to make anti stigma interventions effective.

In addition to protest and advocacy for mentally ill people, *legislation* is also a core aspect that goes with the protest strategy in protecting the rights of MHCUs. It is stipulated in the Mental Health Care Act No 17, 2002, in South Africa and in the Rwandan constitution that a MHCU may not be unfairly discriminated against on the grounds of his or her mental health status (Republic of South Africa, 2002; Republic of Rwanda, 2003). In addition, the United Nations Universal Declaration of Human Rights stipulates that everyone is equal and must be protected from any kind of discrimination (Republic of Rwanda, 2003; Republic of South Africa, 1996; United Nations, 1995). The constitutions of both South Africa and Rwanda legislate equality amongst citizens in that no one can be discriminated against on the basis of gender, colour, language or any other status, which should equally apply to people who are mentally ill (United Nations, 1995; Republic of South Africa, 1996; Republic of Rwanda, 2003). However, research

has found that mentally ill people are excluded from many activities and that there are laws restricting their civil rights in areas such as voting, holding elective office, serving jury duty, parenting and remaining married. In Rwanda, MHCUs do not fulfill the inclusion criteria to present their candidature in election at all levels of authority, from local level to the central level (Rwanda National Election Commission, 2011). The study conducted by Kakuma and colleagues (2010), in South Africa, mentioned actions undertaken by the South Africa Federation of Mental Health in monitoring mental health services to ensure that human rights are upheld. A human right violations register was developed in order to record all reported cases of human right violations of MHCUs. Respondents in this study also recommended the use of other legislations to prevent discrimination, such as the Employment Equity Act (Kakuma et al., 2010). A study conducted by Ramlall (2012) found that although respondents perceive that there are laws, regulations, principles and ethical codes that protect the mentally disabled, they were of the opinion that there were still serious problems with their implementation.

Education as another strategy has been used to attempt to mitigate stigma as it is a means of transmitting information to a specific population. By presenting the facts regarding mental disorders, education is a way of clarifying the myths and misunderstandings commonly held by members of society. However, Couture and Penn (2003) caution that while education is helpful for changing attitudes, it is not effective in changing behavior. Overton and Medina (2008) also caution that although education can help to mitigate stigma in the short term, it cannot be used for the long term and it might be limited in reducing resilient stigmatizing attitudes because belief systems are well ingrained.

Lastly, *contact strategy* (familiarity) refers to direct interaction as a way of mitigating stigma (Overton & Medina, 2008). It has been suggested that interpersonal contact with someone suffering from a mental disorder is more effective than protest and education as it has the capacity to change both stigmatizing attitudes and behavior (Corrigan et al., 2001). The concept of familiarity was introduced for the first time by Corrigan as having mediating effects (Corrigan et al., 2001 and others followed conducting studies on his results (James et al., 2012). Researchers have reported that this variable significantly influences the process of stigma and stereotyping people who are mentally ill (Corrigan et al., 2001; Holmes et al., 1999; Martin et al., 2007). Corrigan et al., (2001) and Holmes et al., (1999) argue that familiarity refers to the level

of contact people have with mentally ill people and that it assessed according to different situations that vary in intimacy. For example, sharing accommodation with a person suffering from a mental disorder provides a high level of contact (Corrigan et al., 2001; Holmes et al., 1999; James et al., 2012). However, according to (Martin et al., 2007), the amount of knowledge people have regarding mental health will affect their evaluations and assessments of the severity of the mental disorder and the labels that are created.

Current literature reported greater familiarity with persons with mental disorders being associated with reduced stigmatizing attitudes (Bjorkman et al., 2008). These authors conducted research on attitudes towards people mentally ill amongst nursing staff in psychiatric and somatic care. The findings suggested a positive correlation between a higher ranking score of intimacy with mental disorder regarding talking to a person with schizophrenia. Nursing staff with a higher ranking score of intimacy with mental disorders also had more positive attitudes about improving treatment for severe depression and prospects of recovery from severe depression. However, this study also revealed negative attitudes amongst participants regarding prospects of recovery from dementia. A study by Ewalds-Kvist, Hogberg and Lutzen (2012) suggested that contact with individuals subject to mental ill health exhibit positive attitudes towards mental disorder. The above authors stressed that the contact creates a positive intergroup coalescence which leads to the improvement of intergroup relations. In addition, the effect of extended contact relates to more positive attitudes toward the out-group and reductions in prejudice. Contrarily, some international and African studies reported no correlation between familiarity and stigmatizing attitudes (Andewayu & Makanjuala, 2008, Hand & Tryssenaar, 2008; Tsang et al., 2007; Smith & Middleton, 2010; James et al., 2012). In a study conducted in Western Nigeria to assess doctors' attitudes towards people with mental disorders, Adewayu & Oguntade (2007) reported that previously having managed a patient with a mental disorder or having a friend or family member with a mental disorder was significantly associated with an increase desire for social distance from mentally ill persons. Studies by Smith & Middleton (2010), in South Africa, and James and colleagues (2012), in Nigeria, suggested no relationship between familiarity and stigmatizing attitudes. Tsang and colleagues (2007) found no relationship between familiarity and stigmatizing attitudes amongst potential employers who had previously hired a person with a mental disorder and employers who had no previous experience

of working with person with a mental disorder, and Hand & Tryssenaar (2008), in their study, reported that familiarity is not necessarily associated with reduced stigmatizing attitudes.

The influence of familiarity in stigma reduction is explained through contact theory, which suggests that discriminatory practices and the desire for social distance are based on emotional reactions to stereotyping, but that these behaviours can be altered or reduced by familiarity. Pettigrew & Tropp (2006), suggest that opportunities for contact with the mentally ill person need to be provided and that the contact situation must provide the participants with the opportunity to become friends. Such opportunity implies close interaction that would make self-disclosure and other friendship-developing mechanisms possible. This will facilitate positive intergroup contact. These authors argue that disconfirming evidence alters stereotypes only if three specific characteristics are present. The first characteristic is that the stigmatized person's behavior is starkly inconsistent with the stereotype and associated label. The second characteristic is that contact occurs often and in many situations with the possibility for generating affective ties. It must be noted that the effects of contact are mediated by threat. Continued contact generally decreases anxiety, but unpleasant experiences can increase it.

According to Pettigrew & Tropp, (2006) contact under unfavorable conditions “*may increase prejudice and intergroup tension*”. It is noted that anxiety is common in initial encounters between groups, and it can spark negative reactions, but that intergroup contact reduces anxiety, and this reduction in anxiety serves as an important mediator of contact's reduction of prejudice (Pettigrew & Tropp, 2006). The third characteristic is that the stigmatized person is seen as typical of the group (Pettigrew & Tropp, 2006). It requires revisiting of attitudes which may result in liking a member of the stigmatized group. As a result, social representations change from ‘us’ versus ‘them’ to more inclusive ‘we’. High intergroup anxiety and threat perception can impede both contact and its positive effects. When groups are isolated from one another, “*prejudice and conflict grow like a disease*”. Positive effects require a common language, voluntary contact and a prosperous economy (Pettigrew & Tropp, 2006). The effect of extended contact relates to more positive attitudes toward the out-group and reductions in prejudice. Familiarity is the extent of contact and can remove stereotypes that are incorrect. Direct contact may be required to reduce perceived personal threats from the out-group. The more familiar the

public is with mental disorder, the less will be the stereotyping. As the person's reactions decrease, so they become less fearful and decrease their discriminatory practices.

It is important that anti-stigma interventions target various groups of society (Ukpong & Abasiubong, 2010; Andrew, Szeto, & Dobson, 2010). A study conducted by Kakuma et al. (2010) revealed that the target population of anti-stigma interventions in South Africa included not only the general population and professional groups such as health care providers, traditional healers, teachers, social service staff, leaders and politicians, but was also specifically aimed at children, adolescents, women, trauma survivors, ethnic groups and other vulnerable and minority groups. According to above authors, strategies and activities developed to change stigma among different people need to be organized or planned at both institutional, national, and community level.

A systematic review of literature has been conducted by Andrew et al., (2010) on anti-stigma workplace programs and initiatives implemented in English speaking countries. This literature review reported that interventions involved health professionals and those with lived experience of schizophrenia and the program targeted various groups from the general public to health professionals to journalists (Bjorkman et al., 2008; Arvaniti et al., 2009; Andrew et al., 2010). As mentioned above, health care providers, including nurses, have the same negative stereotypes as the general public regarding mental disorders (Arvaniti et al., 2009).

It is therefore imperative that anti-stigma initiatives are targeted at them specifically to ensure the effectiveness and success of integrating mental health care into the general community health care facilities. **It is required that stigmatizing attitudes are identified and used to inform these anti-stigma initiatives.**

2.6. Summary of the chapter

This chapter highlighted literature describing the attitudes and prejudice amongst the general population and health care providers towards persons with mental disorders, and the resulting process of stigma. Stigma has an important impact on the integration of mental care services into the general health care facilities as it was noticed that negative stereotypes are prevalent amongst the nurses in the general health care facilities.

Education and the mediating effects of familiarity are suggested as important strategies to inform the development of stigma reduction interventions aimed at improving mental health care services and outcomes. Finally, interventions aiming at stigma reduction were reviewed and the role of nurses in implementation of the stigma interventions was emphasized.

Chapter three describes the methodology that was used in the study.

CHAPTER THREE

METHODOLOGY

3.1. Introduction

The research methodology refers to the plan of conducting a study (Burns and Grove, 2009) and this chapter describes how this study was conducted. This includes the research paradigm, research approach, research design, research setting, population, sample size and sampling techniques, data collection procedure and the tools that were used to collect data, how data was analysed and managed, and the precautions that were taken to manage the ethical issues that occurred during the research process.

3.2. Research paradigm

This study, aimed at describing attitudes amongst nurses regarding persons with mental disorders, is underpinned by a positivism paradigm. The emphasis of the study was on identifying, measuring, describing and analysing attitudes that have been quantified, and relationships among variables have been analysed (Hennink, Hutter, & Bailey, 2011; Maree, 2008; Porta & Keating, 2008; Sarantakos, 2005). The **positivist paradigm assumes that one reality exists** and can be measured objectively. The present study takes the stance that stigmatising attitudes are a social phenomenon and that their existence can be measured objectively by quantitative data collection instruments (Ahmead, Rahhal, & Baker, 2010; Porta & Keating, 2008).

3.3. Research design

This study adopted a quantitative, non-experimental, descriptive design that makes use of a self-report questionnaire to facilitate an audit of the attitudes of general nurses with regard to mental illness. The design facilitates the researcher's ability to access and describe attitudes of nurses towards persons with mental disorders in a selected district hospital in Rwanda (Alasuutari, Bickman, & Brannem, 2008; Gerrish & Lacey, 2006).

3.4. Research setting

The research setting was a selected district hospital in Rwanda. The selected district hospital is a referral hospital for 26 health centres within the respective district. Health centres are the first point of contact for mentally ill people within the Rwandan health care system, providing essential and basic mental health care, including counselling and basic medication (Chlorpromazine, Diazepam) according to the essential drugs outlined in the WHO (2010). Should the health care practitioners be unable to adequately assess and treat the MHCUs, they are referred to a district hospital as per the approved referral pathway (Rwandan Ministry of Health, 2005, 2009). Should the district hospital be unable to adequately assess and treat the MHCU, they are referred to the Ndera Psychiatric Hospital or the Psycho-Social Consultation Service (SCPS), the only specialist psychiatric hospitals in Rwanda (Rwandan Ministry of Health, 2011).

Current statistics show that the selected district hospital is serving a total population of more than 600.000 inhabitants. While the hospital does not have specialist staff in any particular domain, there are general medical doctors, medical technicians and a total of 104 nurses, including general nurses, midwives, mental health nurses in charge of services and the supervisors of health care, who have a nursing background. The mental health nurse specialists are, in principle, charged with facilitating the care of all MHCUs admitted to this hospital. The hospital provides comprehensive services via the following specialist wards; medical (male and female), surgical; (male and female), paediatric (mixed gender), maternity (female), and intensive and emergency care departments (mixed gender). There are a total of 172 beds in eleven wards, with bed occupancy of 100%.

The hospital also provides student training in various fields. The nurse training in Rwanda encompasses equivalents of internationally recognised courses, such as the Registered nurse (A1) the only qualification that includes mental nurse specialists, the Enrolled nurse (A2) and the Auxiliary nurse (A3). In addition, those students who desire to increase their nursing qualification can register for a Bachelor's Degree. This is also a comprehensive course that is not discipline specific. Clinical specialist knowledge, specific to a discipline, is only offered within the advanced diploma and at post graduate study level.

The auxiliary nurse (A3) is a legacy category of nurse as the course is no longer offered. Although, as indicated in the paragraph above, there are specialist wards within this hospital, the nursing staff are considered to be generalists and are rotated throughout the hospital on a six monthly basis, depending on service needs. This means that all nurses will have exposure to all wards while working at this hospital.

There is no specific ward set aside for MHCUs in the hospital and nurses will thus encounter MHCUs in one of two treatment instances. Firstly, a mentally ill person might be admitted to hospital due to active psychiatric symptomatology and these persons tend to be admitted to the medical ward or the surgical ward if there has been injury. Secondly, the MHCU might be receiving psychiatric treatment at the health centre, but has been admitted for a general health related issue, For example, a pregnant MHCU admitted for delivery or a MHCU admitted for gynaecological problems would be admitted to the midwifery ward. All children are admitted to the paediatric ward and those requiring mental health care would receive it from nursing staff working in this unit.

3.5. Population, Target population and Sampling

The population included all nurses working in general health care settings that offer mental health care services. The target population was nurses working in a selected district hospital in Rwanda. The target hospital was conveniently sampled because of its location and because the researcher had established a relationship with the hospital management (Roberts & Priest, 2010; Polit & Beck, 2012). The total number of nurses, as indicated in the description of the research setting, was 104 (n=104). These nurses were not sampled and were all included in the audit. There were two reasons for this. Firstly, the hospital rotation policy and full integration of mental services within the hospital meant that all nurses employed at the hospital had an equal chance of caring for MHCUs. Secondly, the researcher aimed to obtain sufficient numbers for statistical power in the data analysis, which necessitated at least 100 participants (Polit & Beck, 2008, 2012; Roberts & Priest, 2010).

Inclusion criteria

The study included all nurses working at the selected district hospital who had completed a course in nursing that is recognised by the National Council of Nurses in Rwanda who;

- were permanent employees in the selected District Hospital;
- were available during the data collection period;
- agreed to participate in the study.

3.6. Data collection instruments

The data collection instrument was a self-report questionnaire that was divided into three sections and contained two data collection instruments. The first section established demographic data; the second section contained the level of **contact** scale (LOC) (Corrigan et al., 2001); and the third section contained the Swedish version of the Community Attitudes towards Mental Illness (CAMI) (Hogberg, Magnusson, Ewertzon, & Lutzen, (2008). Each section and their validity and reliability is described individually. The self-report questionnaire (Annexure 1&2; p, 96-105) including both instruments, was first written in English and then translated into French, the national language of Rwanda. This translation was done in Rwanda by a French/English language specialist.

3.6.1. Demographic data and their validity

Demographic variables included in this study were age, gender, nursing qualification, and years of nursing experience. Although familiarity, or the level of contact, is also a demographic variable, this was described separately as it was measured by a specific instrument. Content validity was achieved by the inclusion of the demographic variables. Current research studies have reported that specific demographic variables may influence stigmatizing attitudes towards persons with mental disorders (Morris et al., 2011). The influence of age on stereotypical attitudes has been reported by Morris and colleagues (2011), Song and colleagues (2005) and Corrigan and colleagues (2001). Females have been reported in several studies to have less stigmatizing attitudes than males towards persons with mental disorders (Corrigan et al., 2001; Holmes et al., 1999; Song et al., 2005). Educational level and input has been correlated with stigmatizing attitudes in various studies (Morris et al., 2011; Song et al., 2005; Corrigan et al., 2001). Lastly, years of health professionals' experience has been reported as influencing stigmatizing attitudes towards persons with mental disorders (Morris et al., 2011; Song et al., 2005; Kapungwe et al., 2010).

3.6.2. Level of familiarity scale (LOC) and its validity and reliability

The level of contact scale (LOC) was developed by Patrick Corrigan and colleagues and is in the public domain available online at <http://www.stigmaresearch.org> (Corrigan et al., 2001). The LOC tool has 12 situations in which intimacy of contact with a person with a mental disorder varies. Each situation is ranked in relation to the level of familiarity (Corrigan et al., 2001). Respondents were asked to answer yes or no regarding contact experiences with persons with mental illnesses. Although respondents recorded yes or no to all levels of contact, only the highest score, or most intimate level of contact, was recorded. Thus each respondent generated one score for the LOC. For this study, item 1 was changed to reflect the words “mental disorder” rather than “mental illness”, as it is the recognized term in Rwanda.

Validity and reliability

The LOC scale has been used and supported by different research studies (Arvaniti et al., 2009; Bjorkman et al., 2008; Corrigan et al., 2001; Holmes et al., 1999; Song et al., 2005). The reliability of this tool has been reported by Holmes and colleagues (1999) to have inter-rater reliability of 0.83, and remaining authors have not mentioned the reliability coefficient in their journal articles.

3.6.3. Community Attitudes towards the Mentally Ill scale, Swedish version (CAMI-S)

The original Community Attitudes towards Mental Illness scale (CAMI) was designed as a population survey tool by Taylor, Dear, & Hall (1979) and Taylor & Dear (1981) to assess the attitudes of the general public towards persons with mental disorders. The original tool consisted of 40 statements grouped into four sub-scales; authoritarianism, benevolence, social restrictiveness and community mental health ideology. The tool has been adapted by many researchers in different studies conducted on attitudes of various categories of people, including nurses (Morris et al., 2011). However, the number of items is suggested to make this a time consuming instrument that may not be participant friendly. The Swedish version, CAMI-S, was used in this study. This version was adapted and developed by Hogberg and colleagues (2008) and contains 20 items. The tool has three subscales, open minded or pro-integration (Factor 1, items 1-9), fear and avoidance (Factor 2, items 10-15), and community mental health ideology

(Factor 3, items 16-20). Participants are requested to rate various statements on a likert type scale with five options that range from ‘strongly agree’ to ‘strongly disagree’. Response choices are allocated a score from one to five. An overall total score and three subscale scores were generated for each participant, the greater the score achieved by the participant being indicative of more stigmatizing attitudes. For this study, the wording of item 7 was changed to reflect the words “mental disorder” rather than “mental illness”, the former being the recognized term in Rwanda.

Validity and reliability

The original CAMI has been used extensively since its development and has shown high validity and reliability in international (Song et al., 2005; Morris et al., 2011) and **and African studies** (Ukpong & Abasiubong, 2010; Barke et al., 2011). The Swedish version (CAMI-S) (Hogberg et al., 2008) has also been reported to have good reliability, with Cronbach’s alpha coefficient on the 20 items being 0.903. In addition, Cronbach’s alpha coefficient for the three subscales is also good; open minded and pro-integration (0.845); fear and avoidance (0.773); and community mental health ideology (0.713). Although this instrument has been translated into languages other than English, it had not been translated into French. The researcher thus implemented a test re-test of the French translation of the questionnaire to establish the reliability of the newly translated document; a Cronbach’s reliability coefficient was computed and was good for the CAMI-S scale (0.900) and for subscales; open minded and pro-integration (0.811); fear and avoidance (0.702); and community mental health ideology (0.757) (Polit & Beck, 2008, 2012)

3.7. Data collection procedure

The researcher collected all data, without the aid of research assistants (Burns & Grove, 2009). The management of the district hospital requested approval from the National Ethical Committee before providing permission to collect data. Data collection begun once approval had been obtained from the University of KwaZulu-Natal and the Kigali Health Institute Institutional Review Board (KHIIRB) on behalf of the National Ethical Committee (NEC) and permission had been obtained from the management of the selected district hospital. After receiving permission from hospital management, the researcher scheduled a meeting with nursing

management to determine the most efficient data collection process that would fit in with the delivery of health care services within the hospital.

At this meeting, the researcher negotiated for data collection per ward or service; requested the number of nurses per ward or service per shift, including night duty and weekend, and the best times for data collection so as not to disrupt the ward or service routine. The researcher collected data during the nurses' tea breaks and returned to each ward or service twice so as to accommodate nurses on each of the day shifts. The researcher spent a portion of three nights collecting data from nurses on night duty, one night for each shift rotation and one weekend. Once these details had been agreed upon and a data collection schedule prepared, the researcher distributed the information sheets (Annexure 4; p, 107) by hand to all nursing staff within each ward or service, ensuring that copies were available for those on alternate shifts and on night duty. The researcher had established the number of nursing staff per ward or service from the nursing management and was helped by those in charge of the ward or services to reach participants. Data collection took place from 18th February, 2013 until 26th February, 2013.

Before each data collection session, the researcher was available in the ward nursing office to distribute further copies of the information sheet should they be required. In addition, the researcher made a point of explaining to each participant group that participation was voluntary, participants were anonymous so they should not write their names on the self-report questionnaire, completion of the self-report questionnaire was taken as implied consent and that there were no right or wrong answers. The researcher asked if participants had any questions before completing the self-report questionnaire. Participants were provided with the self-report questionnaire and requested to 'post' the completed questionnaire in a sealed box provided by the researcher. This box was opened at the end of each data collection session and questionnaires removed to make space for the next session.

3.8. Data analysis and management

Data was analysed using the statistical computer package SPSS, Version 21. Data was coded, cleaned and entered into SPSS. Reverse scoring was applied to items. Descriptive statistics were done, measures of central tendency range and distribution were computed, and percentages and

scores were tabulated for all scales and sub-scales. Decisions were made whether to use parametric or non-parametric tests to compute associations (associations of subscale scores and total score with demographic variables) and correlations (correlations of familiarity on specific attitudes measured by CAMI-S and correlations of total scores on the CAMI-S and subscale scores) (Pallant, 2010; 2013; Blanche, Durrheim, & Painter, 2007; Sarantakos, 2005).

Collected data was handled by the researcher only. Once raw data had been entered into SPSS, the completed questionnaires were scanned and saved on a CD. The hard copies of the completed questionnaires were destroyed by fire and the CD given to the research supervisor for storage according to UKZN policy. The electronic data was stored on the researcher's personal computer laptop which could only be accessed via a password known only to the researcher. Once data analysis was completed and the final report written, the SPSS files were copied to a second CD disc and stored by the researcher's supervisor according to UKZN policy. The data saved on the researcher's computer was deleted and the recycle bin emptied (Burns & Grove, 2009).

3.9. Ethical considerations

Consultation with key stakeholders: The researcher had arranged meetings with nursing management of the selected hospital in order to plan the collection of data in a way that would not interfere with the normal routine at the hospital.

Expected benefits and benefit-maximization: This research may lead to improved quality of care for consumers at the research service site (Roberts & Priest, 2010). In addition, although there are no direct benefits for the participants, it is suggested that the information gained from the study can increase the hospital management's awareness of the perceptions of their nurses regarding caring for MHCUs and it is possible that strategies that aid the nurses could be implemented (Polit & Beck, 2012).

Potential Risks and Risk minimization: The nurses are not considered vulnerable in the same way as MHCUs. The study was argued to be low risk research, see *informed consent and confidentiality issues* for risk minimization (Burns & Grove, 2009; Polit & Beck, 2012).

Review: The proposal was submitted to the Ethics Committee of the University of KwaZulu-Natal, to the Kigali Health Institute Review Board for ethical approval, and then to the hospital

management for permission. In addition, the nursing management reviewed the data collection process and confirmed a data collection schedule.

Implied consent: Participants were assured that they could refuse to take part with no negative consequences. An information sheet (Annexure 4; p, 107) was provided to all potential participants before the data collection began. The content of the information sheet was confirmed at the data collection session. In addition, *implied consent* was used in this study. Implied consent is defined as “*Consent to participate in a study that a researcher assumes has been given based on certain actions of the participant, such as returning a completed questionnaire*” (Polit and Beck, 2012). This is useful in situations where self-report questionnaires are used to collect data and the researcher attempts to reduce social desirability bias by increasing participants’ sense of anonymity (Alasuutari et al., 2008; Burns & Grove, 2009; Maree, 2008; Polit & Beck, 2012).

Payment: Participants received no payment.

Confidentiality and anonymity: Each self-report questionnaire stipulated that participants were not to record their names (Polit & Beck, 2012). Each completed self-report questionnaire was assigned a code when entered into SPSS and there is no record of participants’ names. In addition, participants posted their completed questionnaires in a sealed box provided by the researcher and the contents were only removed at the end of the day, making it impossible for even the researcher to identify who had completed the individual questionnaires (Maree, 2008). The name of the hospital will not be used in any publication that may arise from this research.

Results dissemination: The report will be provided to the hospital once the dissertation has been passed and that will be followed by publications of results through scientific articles.

3.10. Summary of the chapter

This chapter outlined the research methodology used in this study. This includes descriptions of the paradigm, study design and approach, research setting, population, sampling and sampling strategy, tools of data collection and their validity and reliability. It described the procedure undertaken to collect the data. It also explained how data was analysed and managed, as well as measures taken to protect the ethical considerations involved in the present study. The following chapter will highlight the presentation, analysis and interpretation of findings.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

4.1. Introduction

This chapter presents the data of the study. The purpose of this study was to identify and describe stigmatising attitudes held by nurses towards persons with mental disorders in a selected district hospital in Rwanda, and to analyse the potential mediating effects of socio-demographic factors, specifically familiarity, on these stigmatising attitudes. As described in Chapter 3, section 7 (p 36-37) data collection was done using a self-report questionnaire that had three sections and two data collection instruments. Section one obtained demographic data (age, gender, nursing qualification, nursing category and nursing experience); section two measured the participants' level of familiarity with persons with a mental disorder using the Level of Familiarity Scale (LOC); and section three focused on the extent of participants' stigmatising attitudes toward mental illness through the completion of the Swedish version of the Community Attitudes towards Mental Illness instrument (CAMI-S). Although the level of familiarity was viewed as a demographic variable, it was treated as an independent variable and the results of the LOC scale will be described separately from other demographic data as it represents a scale.

Data were entered into the Statistical Analysis Package for Social Sciences (SPSS), Version 21 using a codebook. Demographic data were coded and converted into numerical values and entered as categorical scales. None of the completed questionnaires had sections of missing data. Data from the LOC included the participants' highest score only, with a single score being recorded to represent participants' greatest level of intimacy from 12 situations with a person with a mental disorder. Data obtained from completion of the CAMI-S resulted in 24 individual scores per participant; 20 item scores out of 5, one total score out of 100, and 3 scores per subscale ('pro-integration', 'fear and avoidance', and 'a community mental health ideology'). Reverse scoring was applied to items 4,5,6,10,11,12,13,18, with higher scores indicating a greater extent of negative stereotypes among participants. To describe and synthesize data, and calculate parameters, descriptive statistics included graphic representations of distribution and frequency counts. The arithmetic mean was not measured in this study. Measures of central tendency and distribution included the range (minimum and maximum), mode (most commonly

occurring score), median (the middle score when the scores are ranked from smallest to largest and sometimes known as the midpoint), skewness statistic and standard error of skewness statistic (values that provide an indication of the symmetry of distribution), and quartiles (Polit & Beck, 2008; Pallant, 2010; 2013). Histograms will be referred to throughout the chapter and these graphic representations are presented in the appendix section in order to facilitate cross checking while at the same time preventing the chapter from becoming overcrowded.

The data is presented according to the conceptual framework rather than the research objectives or self-report questionnaire for readability and clarity of the data analysis process. A description of the sample, including level of familiarity as a demographic variable, is followed by a description of participants stigmatizing attitudes towards persons with mental disorders. Non parametric tests were used to test associations between demographic data (age, gender, nursing qualification, nursing category and nursing experience and LOC) and the participants' scores on CAMI-S, sub scale scores and total CAMI-S score, and the results are presented. Finally, non parametric tests were used to test correlations between the LOC and scores on the CAMI-S, including the three subscales, and the results are presented.

4.2. Description of the sample

The target population consisted of one hundred and four (n=104) nurses working in a selected district hospital in Rwanda. One hundred and two (n=102) self-report questionnaires were returned, which was an acceptable sample of 98% of the target population (Johnson & Wislar, 2012).

4.3. Demographic variables

The histogram representing the nurses' ages (Annexure 1A) shows an abnormal distribution. This is confirmed by the skewness statistic (1.033) being more than the double the standard error of skewness statistic (.239). The range of ages indicates a minimum age of 22 years and a maximum age of 57 years. Other measures of central tendency and distribution indicate a normal distribution (Mo= 30, 25th percentile= 8, 50th percentile= 32 and 75th percentile= 38). Half (50%) of the participating nurses' ages were clustered around the median (Md = 32 years).

Table 4. 1: Demographic data distribution

Category of Nurse	Gender	Diploma				Advanced Diploma				Bachelor's Degree				Total
		Experience in years				Experience in years				Experience in years				
		1-10	11-20	21-30	31 +	1-10	11-20	21-30	31 +	1-10	11-20	21-30	31 +	
Auxiliary Nurse	F	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
	M	0 0%	0 0%	1 0.9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0.9%
Enrolled Nurse	F	34 33.3%	13 12.7%	4 3.9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	51 50%
	M	8 7.8%	9 8.8%	4 3.9%	1 0.9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	22 21.5%
Register Nurse	F	0 0%	0 0%	0 0%	0 0%	12 11.7%	1 0.9%	0 0%	0 0%	4 3.9%	0 0%	0 0%	0 0%	17 16.6%
	M	0 0%	0 0%	0 0%	0 0%	5 4.9%	2 1.9%	1 0.9%	0 0%	3 2.9%	0 0%	0 0%	0 0%	11 10.7%
Total	F	34 33.3%	13 12.7%	4 3.9%	0 0%	12 11.7%	1 0.9%	0 0%	0 0%	4 3.9%	0 0%	0 0%	0 0%	68 66.6%
	M	8 7.8%	9 8.8%	4 3.9%	1 0.9%	5 4.9%	2 1.9%	1 0.98%	0 0%	3 2.9%	0 0%	0 0%	0 0%	34 33.3%
Total Participants		42 41.1%	22 21.5%	9 8.8%	1 0.9%	17 16.6%	3 2.9%	1 0.98%	0 0%	7 6.8%	0 0%	0 0%	0 0%	102 99.9%

Table 4.1 above represents the distribution of other demographic information. The horizontal axis presents the data pertaining to participants' nursing qualifications and their years of experience, which has been divided into four categories (1-10 years, 11-20 years, 21-30 years and 31 years and above). Gender and category of nurse is presented on the vertical axis. As indicated in table 4.1, female participants constituted 66.7% of the sample (n=68), while male participants represented only a third of participants (33.3%, n=34). This is not surprising as

nursing has historically been considered a female profession and Rwanda is not an exception to the stereotype (Kouta & Kaite, 2011).

As mentioned in Chapter three, section 3.4 (p, 32), the only qualification that incorporates specialist mental health nursing knowledge is the advanced diploma. In addition, the level of critical thinking is suggested to be highest in the bachelor degree participants, the highest level of nursing qualification within this sample. This study revealed that there was only one (0.98%, n=1) Auxiliary nurse and that the majority of participants (71.56%, n=73) were Enrolled nurses bringing the number of participants who had achieved Diploma levels A3 and A2 to 72.54% (n=74). Only 20.58% (n=21) of the participants were Registered nurses who had achieved an advanced diploma and 6.86% (n=7) had a bachelor's degree. The nurses with the advanced diploma (n=21; 20.58%) is the only category which includes some participants who had received specialised training in mental health.

With regard to participants' experience, the range of experience indicates a minimum experience of 1 year and a maximum of 34 years. The majority of participants are clustered to the left side of distribution with the skewness statistic (1.264) being more than the double the std error of skewness statistic (.239). Such negative skewness indicates lower levels of experience amongst participants. Measures of central tendency and distribution confirm lower levels of experience; Mo= 4, Md= 7, 25th percentile= 4, 50th percentile= 7 and 75th percentile= 14. Half (50%) of the participants had 7 years or less experience. This sample is suggested to be reflective of the Rwanda National Council of Nurses and Midwives qualifications framework, past and present. The largest portion of participants, enrolled nurses and registered nurses, reflect the national nurse training strategy; the education of nurses at Advanced Diploma began in 1997 and the Bachelor's degree in 2005 (Kigali Health Institute, 2001, 2003). This issue of educating nurses at university level is seen through the age and experience of nurses whereby more than a half of nurses holding a degree are below 33 years of age. In addition, findings revealed that nurses holding a degree had less experience (the longest experience of nurses with a bachelor's degree was 8 years) than nurses with a diploma (longest experience was 34 years).

4.4. Familiarity/ Level of contact scale (LOC)

Histogram representations (Annexure 10C) display a positive skewness, suggesting higher levels of familiarity amongst participants. Participant scores are clustered to the right, confirmed by the skewness statistic (.415) being almost double the std error of skewness statistic (.239).

Table 4. 2: Level of Contact

Score and Level of Familiarity		n	%
1	Never observed a person with mental disorder	0	0%
2	Observed in passing a person with mental disorder in passing	1	1%
3	Watched a movie or television show	0	0%
4	Watched a documentary or television	0	0%
5	Observed a person with severe mental disorder on frequent basis	1	1%
6	Worked with a person who had mental disorder at my place of employment	3	3%
7	My job includes providing services to person with severe mental disorder	31	30.3%
8	My job involves providing services or treatment to person with severe mental disorder	8	7.8%
9	A friend of my family has a mental disorder	15	14.7%
10	I have a relative who has a severe mental disorder	24	23.5%
11	I live with a person who has mental disorder	15	14.7%
12	I have severe mental disorder	4	4%
Total		102	100

Table 4.2. above represents the participants' level of contact with persons with mental illnesses. Participants' level of contact ranged between a minimum score of 2 *Observed a person with mental disorder in passing* (1%, n=1) and a maximum score of 12, *I have severe mental disorder* (4%, n=4). Measures of central tendency indicate the most recurring score (Mo= 7), and the largest participant group is at level 7, *providing services to person with severe mental disorder* (30.3%, n= 31). The midpoint and percentiles (Md= 9; 25th percentile= 4, 50th percentile= 7 and 75th percentile= 14) suggest that half the participants (57.8%, n=59) scored levels of familiarity at 9, *A friend of my family has a mental disorder*, and above.

The second largest group (14.7%, n=24) was at level 10 of intimacy, *I have a relative who has a severe mental disorder*. The third largest groups (14.7%, n=15) included two levels; level 9 *A friend of my family has a mental disorder*, and level 11; *I live with a person who has mental disorder*. Lastly, four participants (4%, n=4) reported having a mental disorder.

The results suggest that participants' levels of intimacy are such that scores on the LOC and the extent of negative stereotypes achieved on the CAMI-S could be significant to the potential mediating effect of intimacy/familiarity on negative stereotypes towards persons with a mental illness.

4.5. Results from the CAMI-S

Items on the CAMI-S are presented individually to facilitate readability. Presentation of subscales (open minded and pro integration, fear and avoidance, community mental health ideology) scores and participants' total score on the CAMI-S follow. Table 4.3. (page 47) illustrates participants' responses per item.

4.5.1. Individual item scores

Item 1: Residents should accept the location of mental health facilities in their neighbourhood to serve the needs of the local community

The majority of participants (71.6%, n=73) were in agreement with statement 1; either strongly agreeing (40.2%, n=41) or agreeing (31.4%, n=32). The remaining participants reflected a neutral response (16.7%, n=17) and disagreement (11.7%, n=12). These figures are confirmed by a significant skew to the left (positive skew) indicating a greater number of lower scores amongst participants and a skewness statistic (.967) that is more than double the size of the std error of skewness (.239). In addition, measures of central tendency and percentiles also confirm less negative stereotypes related to the above statement (Mo= 1; Md= 2; 25th percentile= 1, 50th percentile= 2 and 75th percentile= 3). Half (50 %) the participants scored 2 or less from the available score of five.

Table 4. 3: Response to statements on the CAMI-S

Item statements	Participant responses				
	SA	A	N	D	SD
1. Residents should accept the location of mental health facilities in their neighbourhood to serve the needs of the local community	41 (40.2%)	32 (31.4%)	17 (16.7%)	8 (7.8%)	4 (3.9%)
2. Most persons who were once patients in a mental hospital can be trusted as babysitters	28 (27.5%)	32 (31.4%)	12 (11.8%)	20 (19.6%)	10 (9.8%)
3. Locating mental health services in residential neighbourhoods does not endanger local residents	25 (24.5%)	38 (37.3%)	18 (17.6%)	18 (17.6%)	3 (2.9%)
4. Mental health facilities should be kept out of residential neighbourhoods	24 (23.5%)	34 (33.3%)	8(7.8%)	26 (25.5%)	10 (9.8%)
5. Having mental patients living within residential neighbourhoods might be a good therapy, but the risks to the residents are too great	4 (3.9%)	10 (9.8%)	46 (45.1%)	31 (30.4)	11 (10.8%)
6. Local residents have good reason to resist the location of mental health services in their neighbourhood	20 (19.6%)	26 (25.5%)	23 (22.5%)	22 (21.6%)	11 (10.8%)
7. Mental disorder is an illness like any other	40 (39.2%)	37(36.3%)	6(5.9%)	9(8.8%)	9 (8.8%)
8. We need to adopt a far more tolerant attitude towards the mentally ill in our society	47 (46.1%)	36(35.3%)	18(17.6%)	1 (1.0%)	0 (0.0%)
9. The mentally ill are far less of a danger than most persons suppose	27 (26.5%)	43 (42.2%)	12 (11.8%)	14 (13.7%)	6 (5.9%)
10. It is best to avoid anyone who has mental problems	34(33.3%)	37(36.3%)	17 (16.7%)	8(7.8%)	6(5.9%)
11. I would not want to live next door to someone who has been mentally ill	28(27.5%)	33(32.4%)	16(15.7%)	15(14.7%)	10(9.8%)
12. It is frightening to think of persons with mental problems living in residential neighbourhoods	5(4.9%)	36(35.3%)	7(6.9%)	28(27.5%)	26(25.5%)
13. The best way to handle the mentally ill is to keep them behind locked doors	38(37.3%)	33(32.4%)	15(14.7%)	13(12.7%)	3(2.9%)
14. Residents have nothing to fear from persons coming into their neighbourhood to obtain mental health services	23(22.5%)	41(40.2%)	21(20.6%)	12(11.8%)	5(4.9%)
15. Less emphasis should be placed on protecting the public from the mentally ill	11(10.8%)	32(31.4%)	30(29.4%)	21(20.6%)	8(7.8%)
16. The best therapy for many mental patients is to be part of a normal community	33(32.4%)	48(47.1%)	17(16.7%)	4(3.9%)	0(0.0%)
17. The mentally ill should not be treated as outcasts of society	47(46.1%)	33(32.4)	12(11.8%)	5(4.9%)	5(4.9%)
18. As far as possible, mental health services should be provided through community based facilities	35(34.3%)	37(36.3%)	19(18.6%)	11(10.8)	0(0.0%)
19. No one has the right to exclude the mentally ill from their neighbourhood	51(50.0%)	35(34.3%)	10(9.8%)	5(4.9%)	1(1.0%)
20. The mentally ill should be isolated from the rest of the community	57(55.9%)	17(16.7%)	13(12.7%)	12(11.8%)	3(2.9%)

Item 2: Most persons who were once patients in a mental hospital can be trusted as babysitters

The results revealed that slightly more than half of participants (58.9%, n=60) either strongly agreed (27.5%, n= 28) or agreed (31.4%, n=32) with this statement. Twelve (n=12, 11.8%) participants were neutral. Of the 30 participants (29.4%) who disagreed, 19.6% (n=20) strongly disagreed and 9.8% (n=10) disagreed. Results suggest that almost a third (29.4%, n=30) of participants reflected negative stereotypes related to the mentally ill persons and childcare. The histogram of this item revealed a skewed distribution and scores that are clustered to the left side of the distribution. This is confirmed by the skewness statistic (.465) being almost double the std. error of skewness (.239); Md= 2, Mo= 2, and percentile scores (25th percentile= 1, 50th percentile= 2 and 75th percentile= 4).

Item 3: Locating mental health services in residential neighbourhoods does not endanger local residents

The largest group of participants (61.8%, n=63) strongly agreed or agreed with statement 3, while 17.6%, (n=18) were neutral. However, almost one fifth of participants (20.5%, n=21) reflected negative stereotypes related to the above statement. The histogram (Annexure 10F) shows the distribution of participants' opinions regarding the above statement and indicates a skewed distribution of scores. This is confirmed by the skewness statistic (.495) being almost two times the std. error of skewness (.239). The measures of central tendency and the percentiles of scores (Median= 2, Mode= 2, 25th percentile= 1.75, 50th percentile= 2 and 75th percentile= 3) indicate that half the participants (50%) scored 2 or less on the available scores. Participant responses to this item are in keeping with their responses to item 1.

Item 4: Mental health facilities should be kept out of residential neighbourhoods

Slightly more than half the participants (56.8%, n=58) reflected stigmatising attitudes in agreeing with statement no 4; either strongly agreeing or agreeing. More than one third of participants (35.3%, n=36) disagreed and 7.8% (n=8) were neutral. Histogram representation (Annexure 10G) revealed normal distribution and scores that were not skewed (skewness statistic (.325) not being double of std. error of skewness (.239). In addition, the most commonly occurring score (Mo= 2); midpoint (Md= 2) and percentiles scores (25th percentile= 2, 50th percentile= 2 and 75th percentile= 4) indicated that 50% of participants scored 2 or less from the available score of five. Participant responses seem to indicate a possible contradiction to responses in items 1 and 3, as

in these items, the majority of participant responses had indicated that they did not feel threatened by the thought of mental health facilities being within residential neighbourhoods.

Item 5: Having mental patients living within residential neighbourhoods might be a good therapy, but the risks to the residents are too great

The largest grouping of participants (45.1%, n=46) took a neutral stance to this statement. A similar number of participants (41.2%, n=42) strongly disagreed or disagreed with the statement indicating disagreement with the perception of increased risk; while only 13.7% (n=14) supported the opinion either strongly agreeing or agreeing. This is confirmed by the histogram, which shows a normal distribution of data and scores that were not skewed. This is also indicated by the skewness statistic (-.229) being significantly less than the std. error of skewness (.239). The measures of central tendency and the percentiles of scores (Md= 3, Mo= 3, 25th percentile= 3, 50th percentile= 3 and 75th percentile= 4) were around higher scores. This confirms negatives stereotypes related to the above statement being held by a small portion (14.7%, n=15) of participants. It is noted that the number of participants who disagreed with the perception of increased risk are comparable to the number of participants who took a neutral stance to this statement. Bearing in mind the large number of neutral responses, it is noted that participant responses to this item are may be in keeping with responses to items 1 and 3 and contradict participants' responses in item 4. This situation of neutral responses being greater than responses exhibiting negative stereotypes is similar on items 1, 8, 14, 15, 17, 18, 19. Such a large number of participants giving neutral responses could be indicative that they preferred not to reflect their true feelings towards persons with mental disorders.

Item 6: Local residents have good reason to resist the location of mental health services in their neighbourhood

Despite a positive response to mental health care services within the community in items 1 and 3, responses to this statement suggested the opposite. The majority of participants (45.1%, n=46) reflected negatives stereotypes by agreeing with statement 6, while 22.5% (n=23) were neutral and 32.4% (n=33) were with disagreement. The graph (Annexure 10I) shows a normal distribution of participants' opinions. This is indicated by the skewness statistic (.158) being almost below the std. error of skewness (.239) and the measures of central tendency and the percentiles of scores (Md= 3, Mo= 2, 25th percentile= 2, 50th percentile= 3 and 75th percentile=

4). Although participants did not seem to find persons with mental illness dangerous (item 3), responses to this statement suggest evidence of possible resistance to persons with mental illness receiving services within community settings. These potential contradictions continue to be evident throughout this section of the questionnaire. Items 7 and 8 below suggest limited negative stereotypes, but contradict participants' responses in items 4 and 6.

Item 7: Mental disorder is an illness like any other

The majority of participants (75.5%, n=77) were in agreement with this statement; strongly agreeing (39.2%, n= 40) or agreeing (36.3%, n=37). Only 5.9% (n=6) were neutral and the remaining participants (17.6%, n=18) displayed negative stereotypes related to the statement about mental illness. Scores are positively skewed, indicating a greater number of lower scores amongst participants. This is confirmed by the skewness (1.110) that is much more than the size of the std. error of skewness (.239). To add to that, the most commonly occurring score is one (Mo= 1) and midpoint of distribution is 2 (Md= 2). These findings revealed that 50% of participants scored 2 or less from the available score of 5, (25th percentile= 1, 50th percentile= 2 and 75th percentile= 2.25).

Item 8: We need to adopt a far more tolerant attitude towards the mentally ill in our society

This study revealed that the majority of participants (81.4%, n=83) reported agreement; 46.1% (n=47) strongly agreeing and 35.3% (n=36) agreeing with the statement. Eighteen participants (17.6%, n=18) were neutral. Only 1% (n=1) of the participants was in disagreement with the statement. This can be seen on the graph (Annexure 10K) that shows a lack of symmetric distribution and it is confirmed by the skewness statistic (.632) being twice the size of the std. error of skewness (.239). The most occurring score is one (Mo= 1). Md= 2 and 75% of participants scored 2 or less from all scores of five (25th percentile= 1, 50th percentile= 2 and 75th percentile= 2). This positive skewness suggests that the majority of participants displayed a positive attitude; while only 1% (n=1) reflected negative stereotypes related to the above statement. These responses support responses to items 1, 3 and 5; but seem contradictory to responses in items 4 & 6, where participants displayed potential intolerance towards persons with mental disorder in their community.

Item 9: The mentally ill are far less of a danger than most persons suppose

The current study indicated that more than two third of participants (68.7%, n=70) agreed with this statement. Participants who disagreed (19.6%, n=20) and neutral (11.8%, n=12) represent a small portion of the sample. These figures are confirmed by a significant skew to the left side (positive skew, indicating a greater number of lower scores amongst participants) and a skewness statistic (.801) that is more than the twice of the size of the std. error of skewness (.239). In addition, the most commonly occurring score (Mo= 2); the midpoint (Md= 2) and percentiles scores (25th percentile= 1, 50th percentile= 2 and 75th percentile= 3), indicating that 50% of participants scored 2 or less. Responses to this item seem to support responses given to items 1, 2, 3 and 7 related to community care and living, but appear contradictory to responses to items 4, 5 and 6, where participants indicated the need for keeping persons with mental disorders outside the local residential areas due to the risks being too great. In addition, responses to item 10, below, seem in direct contradiction to participants responses to this item, item 9.

Item 10: It is best to avoid anyone who has mental problems

The majority of participants agreed that avoidance is desirable (69.6%, n=71); 33.3% (n=34) strongly agreeing and 36.3% (n=37) agreeing. Participants who disagreed, suggesting less negative stereotypes, accounted for a small portion of the sample (13.7%, n=14), 7.8% (n=8) disagreeing and 5.9% (n=6) strongly disagreeing. Neutral participants accounted for 16.7% (n=17) of the sample. These figures are displayed in the graph (Annexure 10M) that shows a skewed distribution of scores to the left side (positive skew, indicating a greater number of lower scores amongst participants) and a skewness statistic (.933) that is much more than the twice the size of the std. error of skewness (.239). In addition, the Mode (Mo= 2), median (Md= 2), and percentiles scores (25th percentile= 1, 50th percentile= 2 and 75th percentile= 3) indicate that 50% of participants scored 2 or less. The positive skewness suggests that the majority of participants reflected stigmatising attitudes towards mentally ill persons by indication that it is best to avoid anyone who has a mental disorder. Once again participants demonstrated negative stereotypes regarding the integration of persons with mental disorders into their neighbourhood or community. However, responses to this item contradict participants' responses to items 2, 3, 8 and 9, which suggested that they did not feel that persons with mental disorders are a danger for the local residents.

Item 11: I would not want to live next door to someone who has been mentally ill

Responses to this item indicate that the majority of participants 59.9% (n=61) participants (27.5% (n=28) strongly agree and 32.4% (n=33) agree with this statement. Few participants (15.7% (n=16) remained neutral and 24.5% (n=25) disagreed (14, 7% (n=15) disagreeing and 9.8% (n=10) strongly disagreeing). These figures are confirmed by the histogram (Annexure 10N) that showed a skewed distribution. There was a positive skewness statistic (.573) being twice the size of the std. error of skewness (.239). In addition measures of central tendency of the above item were calculated (Mo= 2, Md= 2, 25th percentile= 1, 50th percentile= 2 and 75th percentile= 3.25) and suggested that half the participants (50%) scored 2 or less on the available scores. This positive skewness suggests that the majority of participants (59.9%, n=61) reflected negative stereotypes related to the above statement. Participants' responses contradict responses in items 2, 7, 8, 9 where they indicated that they viewed a person with a mental disorder the same as any other person and that they posed no danger in a residential neighbourhood. However, the participants' responses support items 5 and 10 suggesting that living with a person with a mental disorder presents too great a risk and should therefore be avoided.

Item 12: It is frightening to think of persons with mental problems living in residential neighbourhoods

The study revealed that more than a one third of participants (40.2%, n=41) agreed with this statement; 35.3% (n=36) strongly agreeing and 4.9% (n=5) agreeing. Seven (n=7, 6.9%) of participants were neutral and fifty three percent (53%, n=54) disagreed (28.5%, n=27) or strongly disagreed (25.5%, n=26) with the statement. These figures are confirmed by the graph (Annexure 10 O) that shows a skewed distribution. However the skewness statistic (-.089) is significantly less than the std. error of skewness (.239). In addition, the Mode (2) and Median (4) indicate that the majority of participants scored higher values and percentiles (25th percentile= 2, 50th percentiles= 4 and 75th percentile= 5) contain the middle of half the sample. The negative skewness indicates that the majority of participants reflected positive attitudes and did not see persons with mental problems as frightening. These responses are in line with responses to items 2, 3, 7, 8 and 9 that all suggest lack of fear and pro-integration of people diagnosed as mentally ill into the community. However, contradictions occurred in participants' responses in items 10 and 11 which displayed unwillingness to live next door to someone with a mental disorder and a desire for social distance.

Item 13: The best way to handle the mentally ill is to keep them behind locked doors

The majority of participants (69.7%, n=71) were in agreement with this statement, with 37.3% (n=38) strongly agreeing and 32.4% (n=33) agreeing. A limited amount (14.7%, n=15) were neutral and 15.6%, (n=16) of participants disagreed, 2.9% (n=3) strongly disagreeing and 12.7% (n=13) disagreeing. There is a significant skew to the left side (positive skew) that indicates a greater number of scores are clustered at lower values to the left. This is confirmed by the skewness statistic (.795) being double of the size of std. error of skewness (.239). The central tendency measures and percentiles scores were Mo= 1, Md= 2, 25th percentile= 1, 50th percentile= 2 and 75th percentile= 3, indicating that half the participants scored 2 or less from the available scores. This suggests that the majority of participants agreed with this statement, reflecting negative stereotypes that contradict participants' responses to items 1,2,3,7,8 and 9. This negative response also contradicts participants' responses to item 16, in which 79.5% (n=81) of participants indicated that they supported the integration of mental patients into the community.

Item 14: Residents have nothing to fear from persons coming into their neighbourhood to obtain mental health services

Findings revealed that 62.7 % (n=64) of participants agreed with the statement, with 22.5%, (n=23) strongly agreeing and 40.2% (n=41) agreeing. Of the remaining participants, 20.6% (21) were neutral and 16.7% (n=17) disagreed, 11.8% (n=12) strongly disagreeing and 4.9%, (n=5) disagreeing. The histogram (Annexure 10Q) shows the distribution being positively skewed and scores clustered at the low values to the left, whereby the skewness statistic (.669) is more than double of the size of std. error of skewness (.239). In addition, the Mode (Mo= 2), Median (Md= 2) and percentiles (percentiles scores (25th percentile= 2, 50th percentile= 2 and 75th percentile= 3) indicate that the majority of participants scored 2 or below and the 50th percentile contains the middle of the sample. The majority of participants' responses are suggested to be in keeping with items 1, 2, 3, 9, and 12, suggesting that participants are comfortable with the idea of mental health services being located in residential neighbourhoods.

Item 15: Less emphasis should be placed on protecting the public from the mentally ill

More than 1/3 of participants (42.2%, n=43) were in agreement; either strongly agreeing (10.8%, n=11) or agreeing (31.4%, n=32) with the statement. The number of neutral (29.4%, n=30) and

disagreeing (28.4%, n=29) participants were similar in size, each group representing just over of a quarter of total participants. This is confirmed by the histogram (Annexure 10R) that suggests a normal distribution (the distribution is not skewed) and the skewness statistic (.207) being almost the same as the std. error of skewness (.239). To add to that, the mode (Mo= 2), median (Md= 3) and percentiles (25th percentile= 2, 50th percentile= 3 and 75th percentile= 4) indicate that a large number of participants scored 3 or more. However, some participants (28.4%, n=29) reflected negative stereotypes related to the above statement. Participant responses to this item are in line with their responses to items 2, 3, 8, 9 and 14, but contradictory, however, to responses reported in items 5, 10 and 13.

Item 16: The best therapy for many mental patients is to be part of a normal community

Results suggest tolerance and limited negative stereotypes within the group of participants. The majority of participants (79.5%, n=81) agreed with the statement, with 32.4% (n=33) strongly agreeing and 47.1% (n=48) agreeing. Only 16.7% (n=17) disagreed and 3.9%, (n=4) were neutral. These figures are confirmed by the graph (Annexure 10S) that shows a skewed distribution in which scores are clustered at the low values to the left, whereby the skewness statistic (.610) is more than double of the size of the std. error of skewness (.239). In addition, the Mode (Mo= 2), Median (Md= 2) and percentiles (25th percentile= 1, 50th percentile= 2 and 75th percentile= 2) indicate that the majority of participants scored 2 or below and 50% percentiles contains the middle of the sample. The participants' responses showed evidence of contradiction to their responses to item 13 that suggested that the best way to handle persons with mental disorders was to keep them behind locked doors.

Item 17: The mentally ill should not be treated as outcasts of society

Of the sample, 78.5% (n=80) indicated that they were in agreement with this statement, with 46.1% (n=47) strongly agreeing and 32.4% (n=33) agreeing. Of the remaining participants, 11.8% (n=12) were neutral and 9.8% (n=10) disagreed; (4.9%, n=5) strongly disagreeing and (4.9%, n=5) disagreeing. The distribution of the graph (Annexure 10T) is positively skewed and scores are clustered at the low values to the left, whereby the skewness statistic (1.324) is much more than double of the size of std. error of skewness (.239). In addition, the Mode (Mo=1), Median (Md=2) and percentiles (25th percentile= 1, 50th percentile= 2 and 75th percentile= 2) indicate that the majority of participants scored 2 or below and 50% percentiles contains the

middle of the sample. These responses are in alignment with responses to items 8 and 16. However they seem to contradict participants' responses to items 10, 11 and 12, where the majority of participants indicated avoidance and unwillingness to live in the same neighbourhood as mentally ill people.

Item 18: As far as possible, mental health services should be provided through community based facilities

The current study indicated that a large number of participants (70.6%, n=72) were in agreement with this statement, 34.3% (n=35) strongly agreeing and 36.3% (n=37) agreeing. Only 10.8% (n=11) of participants disagreed and 18.6% (n=19) were neutral. These figures are confirmed by the histogram (Annexure 10U) which shows a slight skew to the left side (positive skew, indicating a greater number of lower scores amongst participants). However, the skewness statistic (.582) is more than the twice of the size of the std. error skewness (.239). In addition, the most commonly occurring score (Mo= 2), (Md= 2) and percentile scores (25th percentile= 1, 50th percentile= 2 and 75th percentile= 3) indicate that 50% of participants scored 2 or less. The positive skewness suggests that the majority of participants reflected a positive attitude while a few (10.8%, n=11) reflected negative stereotypes related to the above statement. Again it is noted that participant responses to this item are in keeping with responses to items 1, 3 and 14 16 and 17, but contradictory to responses to items 4, 6, and 10.

Item 19: No one has the right to exclude the mentally ill from their neighbourhood

The majority of participants (84.3%, n=86) upheld the rights of persons with mental illness; 50.0% (n=51) strongly agreeing and 34% (n=35) agreeing with the above statement. A small portion of participants (9.8%, n=10) were neutral or in disagreement (5.9%, n=6). The distribution on the histogram (Annexure 10V) is positively skewed and scores are clustered at the low values to the left. The skewness statistic (1.316) is more than double the size of the std. error of skewness (.239). In addition, the Mode (Mo= 1), Median (Md= 1.5) and percentiles (25th percentile= 1, 50th percentile= 1.5 and 75th percentile= 2) indicate that the majority of participants scored almost 2 and below and the 50% percentile contains the middle of the sample. As a conclusion, the majority of participants reflected positive attitudes. Participants' responses to this item again seem to contradict some of their previous responses (items 10, 11, 12) and support other previous participant responses (items 2, 8, 9, 16, 17).

Item 20: The mentally ill should be isolated from the rest of the community

This last item highlights negative stereotypes and contradicts participants' more positive responses to previous items (2, 8, 15, 16, 17, 19) that suggest that they are open to integration and that persons with mental disorders should not be excluded from any activities of the normal community, including taking responsibility (child care). Finding showed that the majority of participants (72.6%, n=74) were in agreement with the above statement, 55.9% (n= 57) strongly agreeing and 16.7% (n=17) agreeing. A small portion, 12.7% (n=13) were neutral and an even smaller portion, 14.7% (n=15) disagreed with the statement. These figures are confirmed by the histogram (Annexure 10W) which shows a skewed distribution with scores being clustered at the low values to the left. The skewness statistic (1.068) is more than the twice of the size of std. error of skewness (.239). In addition, the Mode (Mo= 1), Median (Md= 1) and percentiles (25th percentile= 1, 50th percentile= 1 and 75th percentile= 3) indicate that the majority of participants scored 2 or below. Participants' responses to this item are in agreement with their responses to items 5, 10, 11, 12, 13 indicating that persons with mental disorders should be avoided due to the risks that they pose to the community. Participants' responses expressed the anxiety, fear and nervousness that make local residents disinclined to live in close contact with mentally ill people.

4.5.2. Participants subscale scores and total CAMI-S score

As stated in the methodology chapter (p, 37), there are three subscales; *open minded and pro-integration* (items 1 to 9 yielding a maximum participant score of 45 (9x5)); *fear and avoidance* (items 10 to 15, a maximum participant score of 30 (6x5)); and lastly, *community mental health ideology* (items 16 to 20, a maximum participant score of 25 (5x5)). Each subscale score was calculated and converted to a percentage (%). The total CAMI-S score represents a percentage already (20x5). Subscale and total scores on the CAMI-S are displayed in table below (Table 4.4; p, 57).

Firstly, on the *open minded and pro integration* subscale, the histogram representation (Annexure 10X) shows a relatively even distribution, scores slightly clustered at the low values to the left. The highest score achieved was 82% and the lowest, 22%. This distribution is confirmed by the skewness statistic (.302) being almost the same as the size of the std. error of the skewness (.239), thus indicating no significant skew.

Table 4. 4: Distribution of CAMI-S subscale scores and the total scale score

		Open minded and pro integration	Fear and avoidance	Community mental health ideology	Total score
N	Valid	102	102	102	102
	Missing	0	0	0	0
Median		47.00	47.00	36.00	44.00
Mode		42	47	20	40
Skewness		.302	.451	.379	.528
Std. Error of Skewness		.239	.239	.239	.239
Minimum		22	23	20	25
Maximum		82	80	68	77
Percentile s	25	38.00	40.00	24.00	37.75
	50	47.00	47.00	36.00	44.00
	75	58.00	60.00	52.00	54.00

Secondly, on the *fear and avoidance* subscale, Table 4.4 column 2, the maximum participant score was 80% and the minimum 23%. These figures are confirmed by a slight skew to the left side (negative skew, indicating a greater number of lower total scores amongst participants) and a skewness statistic (.451) that is almost double the std. error of skewness (.239). Thirdly, concerning the *community mental health ideology* subscale, the maximum score was 68% and the minimum 20%. As indicated by the histogram (Annexure10Z), the distribution of this subscale score shows a significant positive skew, scores clustered at the low values to the left. This is also indicated by the skewness statistic (.379) being almost the double of the size of the std. error of skewness (.239).

Median and percentiles results suggest that participants reflected less negative stereotypes on subscale 3, *community mental health ideology*, (Md= 36%; Mo= 20%; 25th percentile= 24%; 75th percentile= 52%) than subscale 1, *open minded and pro integration*, (Md= 47%; Mo= 42%; 25th percentile= 38%; 75th percentile= 58%) and subscale 2, *fear and avoidance*, (Md= 47%; Mo= 47%; 25th percentile= 40% ;75th percentile= 60%). These results suggest that the extent of negative stereotypes between the *open minded and pro integration* subscale and *fear and*

avoidance subscale are similar. However, percentiles results indicate slightly higher negative stereotypes on *fear and avoidance* subscale than *open minded and pro integration* subscale.

Total scores for the CAMI-S suggest a slightly skewed distribution. The skew is largely influenced by the *community mental health ideology* subscale. The maximum total score was 77% and the minimum total score 25%. These figures are confirmed by the distribution being skewed to the left side (positive skew). This is also confirmed by the skewness statistic (.528) being double of the size of the std. error of skewness (.239) and measures of central tendency and distribution (Mo= 40%, Md= 44% and percentiles (25th percentile= 37.75%; 75th percentile= 54%).

4.6. Associations between demographic variables and CAMI-S

As stated in the introduction to this chapter, non-parametric tests were used for associations, these being the Mann-Whitney U test and the Kruskal-Wallis H test (Pallant, 2010; 2013). Apart from familiarity, demographic variables (gender, age, qualification, years of experience) were seen as independent variables and scale scores on the CAMI-S as dependent variables. Finally, as stated in the introduction, associations were seen as significant when they were less than 0.05 ($P < 0.05$) (Pallant, 2010; 2013).

4.6.1. Gender associations

The Mann–Whitney U Test was used to compare specific participant’s attitudes towards persons with a mental disorder (scores from the CAMI-S) with gender. Results of Mann–Whitney U Test suggested no significant associations between gender and nurses stigmatizing attitude towards persons with a mental disorder on nineteen items of the CAMI-S (items 1 to 3 and items 5 to 20), nor on subscale or total scores on the CAMI-S. However, there is a statistically significant association between gender and participant scores achieved on item 4 of the CAMI-S, “*Mental health facilities should be kept out of residential neighborhoods*” (the z value is -.04 and significance level (p) = .965), $U=1150$. Although both female and male participants recorded similar medians, percentiles results suggest that male participants recorded lower 25th percentile (Md= 2; 25th percentile= 1; 75th percentiles= 4) than female participants who recorded higher

(Md= 2; 25th percentile= 2; 75th percentiles= 4) indicating that female nurses have a greater extent of negative stereotypes than male nurses regarding item 4.

4.6.2. Age associations

Firstly, the Kruskal Wallis H Test revealed no statistically significant age associations with items 2, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 on the CAMI-S scale, two of the sub scale scores “*fear and avoidance*” and “*community mental health ideology*”, and the total CAMI-S score. However, as illustrated in Table 4.5 below, statistically significant age associations are suggested for the following items: 1, *Residents should accept allocation of mental health facilities in their neighborhood to serve the needs of the local community* ($\chi^2(3, =102) =9.554, p=.023$); 3, *Locating mental health services in residential neighborhoods does not endanger local residents* ($\chi^2(3, =102) =8.055, p=.045$); 4, *Mental health facilities should be kept out of residential neighborhoods* ($\chi^2(3, =102) =13.266, p=.004$); 9, *the mentally ill are far less of a danger than most people suppose* ($\chi^2(3, =102) =9.385, p=.025$); and 20, *the mental ill should be isolated from the rest of the community* ($\chi^2(3, =102) =10.694, p=.014$); and the subscale “*open minded and pro integration*” ($\chi^2(3, =102) =10.557, p=.014$). Details of significant results are displayed in table 4.6 below and the complete results tabulated in annexure (11A). Participants’ responses to items 1, 3, 4, 9 and the subscale “*open minded and pro integration*” suggest greater stigmatizing attitudes amongst the younger age group (21-30 years). As reflected in Table 4.5.(page 60), although in item 1, age groups shared similar median scores, responses to items 3, 4 and 9 and the subscale “*open minded and pro integration*” reflect higher median scores within this age group (21-30 years). In addition participant scores at the 75th percentile tended to be consistently higher than the other age groups for all items (1, 3, 4 & 9) and the subscale *open minded and pro integration*.

Although a statistically significant association is suggested between age of participants and responses in item 20 (*The mental ill should be isolated from the rest of the community*) $\chi^2(3, =102) =10.694, p=.014$, the older age (51 years and above) and the younger groups recorded an identical median score (Md=2), which is higher than the median of second group (31-40yrs) and third group (41-50yrs), who recorded similar median values of 1.

Table 4. 5: Significant age associations with scores achieved on the CAMI-S

Age group	21-30 yrs			31-40 yrs			41-50yrs			50 +			P value
	25	50/ Md	75	25	50/ Md	75	25	50/ Md	75	25	50/ Md	75	
1. Residents should accept allocation of mental health facilities in their neighborhood to serve the needs of the local community	1	2	3	1	2.	2	1	1	2	1	1.5	2	.023
3. Locating mental health services in residential neighborhoods does not endanger local residents	2	3	4	2	2	3	1	2	2.5	1	1.5	2	.045
4. Mental health facilities should be kept out of residential neighborhoods	2		4	1	2	4	1	1.5	2	1	1.5	2	.004
9. The mentally ill are far less of a danger than most people suppose	2	2	4	1	2	3	1	2	2	1	1.5	2	.025
20. The mental ill should be isolated from the rest of the community	1	2	3.5	1	1	2	1	1	1	1	2	4	.014
Subscale: Open minded and pro integration	42	53	69	36	47	56	29	43	47	29	42	51	.014

However, percentile results suggest that the older group recorded lower scores (4) at the 75th percentiles than the younger age group (3.5), indicating that the older age group of participants reflected more negative stereotypes regarding a desire for social distance from mentally ill persons than the younger age group.

4.6.3. Experience associations

The Kruskal Wallis H Test revealed no statistically significant association between participants' years of experience as health care workers and the extent of negative stereotypes for items 5, 7, 11, 12, 13, 14, 15, 16, 17, 18 and 19, nor on the two sub-scales, *fear and avoidance* and *community mental health*.

Table 4. 6: Significant experience associations with scores achieved on the CAMI-S

Experience in years	0-8 years			9-16 years			17-24years			25 +			P value
	25	50 Md	75	25	50 Md	75	25	50 Md	75	25	50 Md	75	
1. Residents should accept allocation of mental health facilities in their neighborhood to serve the needs of the local community	1	2	3	1	1	2	1	2	2	1	1	2	.007
2. Most persons who were once patients in a mental hospital can be trusted as babysitters	2	2	4	1	2	3	1	2	2	1	1.5	3	.007
3. Locating mental health services in residential neighborhoods does not endanger local residents	2	2	4	1	2	3	1.5	2	2	1	1	2	.020
4. Mental health facilities should be kept out of residential neighborhoods	2	3	4	1	2	4	1	2	2	1	1.5	4	.031
6. Local residents have good reason to resist the location of mental health services in their neighborhood	2	3	4	1	3	4	1	2	2	1	1.5	2	.023
8. We need to adopt a far more tolerant attitude towards the mentally ill in our society	1	2	3	1	1	2	1	1	2	1	1	1	.010
9. The mentally ill are far less of a danger than most people suppose	2	2	4	1	2	2	1	2	2	1	1	1	.002
10. It is better to avoid any one who has mental problems	2	2	3	1	2	2.5	1	1.5	2	1	1.5	2	.019
20. The mental ill should be isolated from the rest of the community	1	2	3	1	1	2	1	1	2	1	1	2	.010
Open minded and pro integration	42	53	64	30	44	52	32. 5	41	47	27	34.5	44	.001
Total score	40	46	60	33. 5	45	50	33	40.5	43	28	34	50	.007

However, statistically significant experience associations are suggested for the following items: item 1, *Residents should accept allocation of mental health facilities in their neighborhood to serve the needs of the local community*, ($\chi^2(3, =102) =12.117, p=.007$); item 2, *Most persons who were once patients in a mental hospital can be trusted as babysitters* ($\chi^2(3, =102) =12.064,$

p=.007); item 3, *locating mental health services in residential neighborhoods does not endanger local residents* (χ^2 (3, =102) =9.853, p=.020); item 4, *mental health facilities should be kept out of residential neighborhoods* (χ^2 (3, =102) =8.871, p=.031; 6) *local residents have good reason to resist the location of mental health services in their neighborhood* (χ^2 (3,=102)=9.530, P=.023; item 8, *We need to adopt a far more tolerant attitude towards the mentally ill in our society* (χ^2 (3,=102)=11.439,p=.010); item 9, *The mentally ill are far less of a danger than most people suppose* (χ^2 (3,=102)=14.686, P=.002); item 10, *It is better to avoid any one who has mental problems* (χ^2 (3, =102) =9.974, p=.019); and item 20, *The mentally ill should be isolated from the rest of the community* (χ^2 (3,=102)=11.309, p=.010); as well as the subscale, *open minded and pro integration* (χ^2 (3,=102)=17.071, p=.001); and the total score (χ^2 (3,=102)=12.056, p=.007).

Participants responses to items 1, 2, 3, 4, 6, 8, 9, 10, 20, the subscale “*open minded and pro integration*” and the total score suggest greater stigmatizing attitudes amongst the less experienced group (0-8 years). As indicated in table 4.6, median and percentile results on items 1, 2, 3, 6, 8, 9, 10, and 20, subscale 1 and the total score reflected higher median, 25th percentile and 75th percentile scores for the less experienced group (0-8 years) than other groups (9-16 years; 17-24 years) and particularly the most experienced group (25 years and above). However, in item 4, the 75th percentile score was similar for the less experienced group (0-8 years) and the most experienced group (25 years and above). Details of significant results are displayed in table 4.6 above and the complete results tabulated in annexure (11B).

4.6.4. Qualification associations

The Kruskal-Willis H Test revealed no associations between participant qualifications and stereotypical attitudes measured by individual items, subscales or total score of the CAMI-S.

4.6.5. Nurses’ category associations

The Kruskal Wallis H Test revealed no statistically significant associations between the categories of participants and their responses on the twenty individual items, the subscale *open*

minded and pro integration, or the total score of the CAMI-S. However, statistically significant category of nurse associations are suggested for subscale 2, *fear and avoidance* ($\chi^2(2, =102) =6.460, p=.040$) and subscale 3, *community mental health ideology* ($\chi^2(2, =102) =6.907, p=.032$). Enrolled nurses recorded higher medians and percentiles (Md= 50, 25th percentile= 43, 75th percentile= 67) than registered nurses (Md= 43, 25th percentile= 40, 75th percentile =47) for the subscale *fear and avoidance*. Enrolled nurses also recorded higher median and percentile scores (Md= 40; 25th percentile= 24, 75th percentile= 52) than registered nurses (Md= 28; 25th percentiles= 24, 75th percentiles= 40) for the subscale *community mental health*. These results indicate that Enrolled nurses reflected greater stigmatizing attitudes than Registered nurses regarding both fear and avoidance and the community mental health subscale.

4.7. Correlations

Spearman's rho correlation coefficient was used to investigate correlations between items within the CAMI-S per subscale (Tables 4.7, 4.8 and 4.9), between subscales scores (Table 4.10) and between subscale score and total scores on the CAMI-S (Table 4.10). In addition, scores achieved on the LOC, level of familiarity, were correlated with scores achieved in the CAMI-S, the extent of stigmatizing attitudes, to identify possible strength and direction of this mediating relationship.

Results with significant correlations (strong, medium and small) are reported ($p < 0.5$), Cohen's guide lines were used to determine the strength of the correlation; small ($\rho = .10$ to $.29$), medium ($\rho = .30$ to $.49$) and strong ($\rho = .50$ to 1.0) (Cohen, 1988), cited in Pallant (2010; 2013).

4.7.1. Inter-correlations between items within the CAMI-S subscales

Spearman's rho correlation coefficient used on the items within the *Open minded and pro integration* subscale (items 1, 2, 3, 4, 5, 6, 7, 8, 9) revealed significant strong positive correlations between item 1 (*Residents should accept allocation of mental health facilities in their neighborhood to serve the needs of the local community*) and items 7 (*Mental disorder is an illness like any other*); 8 (*We need to adopt a far more tolerant attitude towards the mentally ill*

in our society); and 9 (*The mentally ill are far less of a danger than most people suppose*). These significant strong positive correlations with items 7 ($\rho = .598$, $n=102$, $p < 0.001$), 8 ($\rho = .691$, $n=102$, $p < 0.001$) and 9 ($\rho = .518$, $n=102$, $p < 0.001$) suggest that an increase in scores in item 1 correlates with an increase in the scores in the items 7, 8, and 9.

Other strongly significant positive correlations include: Firstly, items 2 and 9 ($\rho = .621$, $n=102$, $p < 0.001$), suggesting that an increase in the opinion that most persons who were once patients in a mental hospital can be trusted as babysitters is correlated with an increase with the opinion that the mentally ill are far less of a danger than most people suppose; Secondly, items 3 (*Locating mental health services in residential neighborhoods does not endanger local residents*) and 9 (*The mentally ill are far less of a danger than most people suppose*) ($\rho = .503$, $n=102$, $p < 0.001$).

Thirdly, items 4 (*Mental health facilities should be kept out of residential neighborhoods*) and 6 (*Local residents have good reason to resist the location of mental health services in their neighborhood*) ($\rho = .500$, $n=102$, $p < 0.001$); Fourthly, items 7 (*Mental disorder is an illness like any other*) and 8 (*We need to adopt a far more tolerant attitude towards the mentally ill in our society*) ($\rho = .740$, $n=102$, $p < 0.001$) and items 7 and 9 (*The mentally ill are far less of a danger than most people suppose*) ($\rho = .605$, $n=102$, $p < 0.001$); and lastly, items 8 and 9 ($\rho = .679$, $n=102$, $p < 0.001$). These results displayed above indicate that an increase in scores in one item correlates with an increase in scores in another item respectively.

Spearman's rho correlation coefficient test revealed medium positive correlations between item 1 and items 2 (*Most persons who were once patients in a mental hospital can be trusted as babysitters*), 3 (*Locating mental health services in residential neighborhoods does not endanger local residents*) and 4 (*Mental health facilities should be kept out of residential neighborhoods*). These moderate positive correlations with the item 2 ($\rho = .497$, $n=102$, $p < 0.001$); item 3 ($\rho = .455$, $n=102$, $p < 0.001$) and item 4 ($\rho = .417$, $n=102$, $p < 0.001$) suggest that an increase in scores in item 1 is correlated with an increase in scores in the items 2, 3 and 4.

Table 4.7: Inter correlations within open minded and pro integration subscale

Spearman's rho		Item1	Item2	Item3	Item4	Item5	Item6	Item7	Item8	Item9
Item 1	Correlation	1.000	.497**	.455**	.417**	-.257*	.243**	.598**	.691**	.518**
	coefficient	.	.000	.000	.000	.009	.014	.000	.000	.000
	Sig.(2-tailed)	102	102	102	102	102	102	102	102	102
Item 2	Correlation		1.000	.477**	.307**	-.205*	.334**	.486**	.469**	.621**
	coefficient		.	.000	.002	.038	.001	.000	.000	.000
	Sig.(2-tailed)		102	102	102	102	102	102	102	102
Item 3	Correlation			1.000	.428**	.057	.447**	.404**	.413**	.503**
	coefficient			.	.000	.570	.000	.000	.000	.000
	Sig.(2-tailed)			102	102	102	102	102	102	102
Item 4	Correlation				1.000	.150	.500**	.339**	.391**	.336**
	coefficient				.	.132	.000	.000	.000	.000
	Sig.(2-tailed)				102	102	102	102	102	102
Item 5	Correlation					1.000	.190	-.253*	-.315**	-.295**
	coefficient					.	.056	.010	.001	.003
	Sig.(2-tailed)					102	102	102	102	102
Item 6	Correlation						1.000	.251*	.319**	.293**
	coefficient						.	.011	.001	.003
	Sig.(2-tailed)						102	102	102	102
Item 7	Correlation							1.000	.740**	.605**
	coefficient							.	.000	.000
	Sig.(2-tailed)							102	102	102
Item 8	Correlation								1.000	.679**
	coefficient								.	.000
	Sig.(2-tailed)								102	102
Item 9	Correlation									1.000
	coefficient									.
	Sig.(2-tailed)									102

** . Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed)

Also, significant medium positive correlations occurred between item 2 and items 3, 4, 6, 7, 8 (with item 3 ($\rho=.477$, $n=102$, $p<0.001$), item 4 ($\rho=.307$, $n=102$, $p<0.001$), item 6 ($\rho=.334$, $n=102$, $p<0.001$), item 7 ($\rho=.486$, $n=102$, $p<0.001$) and item 8 ($\rho=.469$, $n=102$, $p<0.001$). Other significant medium positive correlations were found between item 3 and items 4, 6, 7 and 8 (item 4 ($\rho=.428$, $n=102$, $p<0.001$), item 6 ($\rho=.447$, $n=102$, $p<0.001$), item 7 ($\rho=.404$, $n=102$, $p<0.001$) and item 8 ($\rho=.413$, $n=102$, $p<0.001$)). There were also significant medium positive correlations between item 4 and items 7, 8 and 9 (item 7 ($\rho=.339$, $n=102$, $p<0.001$); item 8 ($\rho=.391$, $n=102$, $p<0.001$) and item 9 ($\rho=.336$, $n=102$, $p<0.001$)).

Lastly, a significant medium positive correlation was found between item 6 and item 8 ($\rho=.319$, $n=102$, $p<0.001$). These results presented above suggest that an increase in scores in one item correlates with an increase in scores in another (item 2 with items 4, 3, 6, 7 and 8; item 3 with items 4, 6, 7 and 8; item 4 with items 7, 8 and 9; and item 5 with item 8). However, the Spearman's rho correlation coefficient test revealed one negative medium correlation between item 5 and item 8 ($\rho=-.315$, $n=102$, $p<0.001$) suggesting that an increase in scores in item 5 correlates with a decrease in scores in item 8.

Spearman's rho correlation coefficient test revealed small positive correlations between item 6 and items 7 and 9 (item7: $\rho=.251$, $n=102$, $p<0.001$ and item 9: $\rho=.293$, $n=102$, $p<0.001$) and small negative correlations between the item 1 and item 5 ($\rho=-.257$, $n=102$, $p<0.001$) ; between item 5 and items 7, and 9 (item7: $\rho=-.253$, $n=102$, $p<0.001$) and item 9 : $\rho=-.295$, $n=102$, $p<0.001$). Here the correlation coefficients are too weak to suggest a trend.

Fear and avoidance subscale (items 10, 11, 12, 13, 14, 15) inter-correlations revealed only one significant strong positive correlation between item 10 (*It is better to avoid any one who has mental problems*) and item 13 (*The best way to handle the mentally ill is to keep them behind locked door*) ($\rho=.606$, $n=102$, $p<0.001$) suggesting that an increased score in item 10 correlates with increased scores with the item 13.

The Spearman's rho correlation coefficient test revealed medium positive correlation between items 10 (*It is better to avoid any one who has mental problems*) and 11 (*I would not want to live next door to someone who has been mentally ill*) ($\rho=.497$, $n=102$, $p<0.001$); between items 11 and 13 ($\rho=.496$, $n=102$, $p<0.001$); between items 11 and 14 (*Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services*) ($\rho=.393$,

n=102, $p < 0.001$); between items 13 and 14 ($\rho = .337$, n=102, $p < 0.001$); indicating that an increase in one item is correlated with an increase in scores in another item (10 versus 11; 11 versus 13; 11 versus 14; 13 versus 14).

Table 4. 8: Inter correlations within fear and avoidance subscale

Spearman's rho		Item 10	Item11	Item12	Item13	Item14	Item15
Item 10	Correlation coefficient	1.000	.497**	.292**	.606**	-.411**	.090
	Sig.(2-tailed)	.	.000	.003	.000	.000	.369
	N	102	102	102	102	102	102
Item11	Correlation coefficient		1.000	.299**	.496**	.393**	-.012**
	Sig.(2-tailed)		.	.002	.000	.000	.902
	N		102	102	102	102	102
Item12	Correlation coefficient			1.000	.263**	.185	.028**
	Sig.(2-tailed)			.	.007	.063	.779
	N			102	102	102	102
Item13	Correlation coefficient				1.000	.337	.005**
	Sig.(2-tailed)				.	.001	.959
	N				102	102	102
Item14	Correlation coefficient					1.000	.279
	Sig.(2-tailed)					.	.005
	N					102	102
Item15	Correlation coefficient						1.000
	Sig.(2-tailed)						.
	N						102

** . Correlation is significant at the 0.01 level (2-tailed)

However, medium negative correlation was found between items 10 and 14 ($\rho = -.411$, n=102, $p < 0.001$) indicating that an increase in scores in item 10 is correlated with a decrease in scores in the item 14.

Lastly, the test revealed small positive correlations between items 10 and 12 ($\rho = .292$, n=102, $p < 0.001$); items 11 and 12 ($\rho = .299$, n=102, $p < 0.001$); items 12 and 13 ($\rho = .263$, n=102, $p < 0.001$) and between 14 and 15 (*Less emphasis should be placed on protecting the public from the mentally ill*) ($\rho = .279$, n=102, $p < 0.001$) but the correlation coefficients are too weak to suggest a trend. The strength of these correlation coefficients is not sufficient to suggest a trend.

Findings showed significant strong positive correlations within the *Community mental health ideology* subscale between items 16 (*The best therapy for many mental patients is to be part of a normal community*) and 17 (*The mental ill should not be treated as outcasts of society*), items 16 and 18 (*As far as possible, mental health services should be provided through community based services*) and items 16 and 19 (*No one has the right to exclude the mentally ill from their neighbourhood*). Item 16's strong positive significant correlations with items 17 (rho=.517, n=102, p<0.001); 18 (rho=.548, n=102, p<0.001) and 19 (rho=.505, n=102, p<0.001) suggests that an increase in scores in item 16 correlates with an increase in scores in items 17, 18 and 19. There were also significant strong positive correlations between item 17 and items 18 (rho=.553, n=102, p<0.001) and 19 (rho=.627, n=102, p<0.001) as well as between item 18 and 19 (rho=.559, n=102, p<0.001), suggesting that an increase in scores in one item correlates with an increase in score in scores in another (item 17 versus 18 and 19 and item 18 versus 19).

Table 4. 9: Inter correlations within the community mental health ideology subscale

Spearman's rho		Item 16	Item17	Item18	Item19	Item20
Item 16	Correlation coefficient	1.000	.517**	.548**	.505**	-.490**
	Sig.(2-tailed)	.	.000	.003	.000	.000
	N	102	102	102	102	102
Item17	Correlation coefficient		1.000	.553**	.627**	.275**
	Sig.(2-tailed)		.	.002	.000	.005
	N		102	102	102	102
Item18	Correlation coefficient			1.000	.559**	.434**
	Sig.(2-tailed)			.	.000	.000
	N			102	102	102
Item19	Correlation coefficient				1.000	.496
	Sig.(2-tailed)				.	.000
	N				102	102
Item20	Correlation coefficient					1.000
	Sig.(2-tailed)					.
	N					102

** . Correlation is significant at the 0.01 level (2-tailed)

The Spearman's rho correlation coefficient test revealed medium positive correlation between item 18 and item 20 (*The mental ill should be isolated from the rest of the community*) (rho=.434, n=102, p<0.001) and between item 19 and item 20 (rho=.496, n=102, p<0.001), indicating that an increase in scores in one item is correlated with an increase in scores in another (item 18 versus 20 and item 19 versus 20). Findings also showed a moderate negative correlation between item 16 and item 20 (rho=-.490, n=102, p<0.001), indicating that an increase in scores in item 16 is correlated with a decrease in scores in item 20.

Lastly, Spearman's rho correlation coefficient test revealed small positive correlation between item 17 and item 20 (rho=.275, n=102, p<0.001), but the strength was not sufficient to suggest a trend.

4.7.2. Correlation between CAMI-S subscale scores and the total scores

Spearman's rho correlation coefficient was used to correlate the scores of the three subscales on the CAMI-S scale (subscale 1, *open minded and pro integration*; subscale 2, *fear and avoidance*; and subscale 3, *community mental health ideology*) and to correlate the total scores of CAMI-S with the subscale scores.

Table 4. 10: Correlation between subscale score and the total score (CAMI-S)

Spearman's rho		Subscale 1 Open minded and pro integration	Subscale 2 Fear and avoidance	Subscale 3 Community mental health ideology	Total CAMI-S score
Subscale 1	Correlation coefficient	1000	.716**	.957**	.921**
	Sig.(2-tailed)	.	.000	.000	.000
	N	102	102	102	102
Subscale 2	Correlation coefficient		1000	.628**	.867**
	Sig.(2-tailed)		.	.000	.000
	N		102	102	102
Subscale 3	Correlation coefficient			1000	.824**
	Sig.(2-tailed)			.	.000
	N			102	102
Tot score	Correlation coefficient				1000
	Sig.(2-tailed)				.
	N				102

** . Correlation is significant at the 0.01 level (2-tailed)

Results indicate significant strong positive correlations between subscale 1 and subscales 2 ($\rho = -.716$, $n=102$, $p < 0.001$) and 3 ($\rho = -.957$, $n=102$, $p < 0.001$) and between subscale 2 and subscale 3 ($\rho = -.628$, $n=102$, $p < 0.001$), suggesting that an increase in scores in one subscale correlates with an increase in scores in another (subscale 1 versus subscale 2 and 3; subscale 2 versus subscale 3).

Results from Spearman's rho correlation coefficient also revealed a significant strong positive correlation between the total score on the CAMI-S and subscale 1 (*open minded and pro integration*) ($\rho = .921$, $n=102$, $p = 0.001$); subscale 2 (*fear and avoidance*) ($\rho = .867$, $n=102$, $p = 0.001$); and subscale 3 (*community mental health ideology*) ($\rho = .824$, $n=102$, $p = 0.001$). These results suggest that increase in total scores on the CAMI-S coincided with an increase in subscales scores (*open minded and pro integration, fear and avoidance, community mental health ideology*).

4.7.3. Correlation between level of familiarity (LOC) and CAMI-S.

Correlations between participants' single highest score on the LOC, indicating their most intimate level of contact with a person with a mental disorder, and participants' scores on each of the CAMI-S subscales, and their total score achieved on the CAMI-S are presented in Table 4.11 below and described.

Correlations between the level of familiarity measured by LOC and the four items within the *open minded and pro integration* subscale revealed a medium strength negative correlation

These include item 2 (*Most persons who were once patients in a mental hospital can be trusted as babysitters*) ($\rho = -.415$, $n=102$, $p < 0.001$), item 3 (*Locating mental health services in residential neighborhoods does not endanger local residents*) ($\rho = -.395$, $n=102$, $p < 0.001$), item 7 (*Mental disorder is an illness like any other*) ($\rho = -.320$, $n=102$, $p < 0.001$), and item 9 (*The mentally ill are far less of a danger than most people suppose*) ($\rho = -.398$, $n=102$, $p < 0.001$).

Also, Spearman's rho correlation coefficient revealed moderate negative correlation between familiarity measured by LOC and the subtotal score on the subscale ($\rho = -.376$, $n=102$, $p < 0.001$), indicating that the high level of familiarity correlates with lower level in scores (lower level of stigmatising attitude). The results above indicate that an increase in familiarity correlates

with a decrease in scores in items 2, 3, 7 and 9, suggesting that participants with higher familiarity reflected less negative stereotypes towards persons with mental disorders in respect of being open and pro-integration.

The test revealed a significant small negative correlation between the familiarity measured by LOC and items 1 (*Residents should accept allocation of mental health facilities in their neighborhood to serve the needs of the local community*) ($\rho = -.256$, $n=102$, $p < 0.001$); 4 (*Mental health facilities should be kept out of residential neighborhoods*) ($\rho = -.211$, $n=102$, $p < 0.033$); 5 (*Having mental patients living within residential neighborhoods might be a good therapy, but the risk to the residents are too great*) ($\rho = -.219$, $n=102$, $p < 0.001$); and 8 (*We need to adopt a far more tolerant attitude towards the mentally ill in our society*) ($\rho = -.292$, $n=102$, $p < 0.001$). The correlation coefficients are too weak to suggest a trend

Regarding the *fear and avoidance* subscale, the Spearman's rho correlation coefficient revealed significant medium negative correlations between familiarity and items 11 (*I would not want to live next door to someone who has been mentally ill*) ($\rho = -.388$, $n=102$, $p < 0.001$); 12 (*It is frightening to think of people with mental problems living in residential neighbourhoods*) ($\rho = -.388$, $n=102$, $p < 0.001$); 13 (*The best way to handle the mentally ill is to keep them behind locked door*) ($\rho = -.449$, $n=102$, $p < 0.001$); and 15 (*Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services*) ($\rho = -.364$, $n=102$, $p < 0.001$). These results indicate that an increase of scores in level of contact (familiarity) correlates with lower scores in items 11, 12, 13 and 15, suggesting that participants with higher level of contact (familiarity) reflected less negative stereotyping attitudes in term of fear and avoidance towards persons with mental disorders.

The test also revealed a significant small negative correlations between familiarity and items 10 (*It is better to avoid any one who has mental problems*) ($\rho = -.257$, $n=102$, $p < 0.001$); and 14 (*Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services*) ($\rho = -.214$, $n=102$, $p < 0.005$). These correlation coefficients are not of sufficient strength to suggest a trend.

In relation to the *community and mental health ideology* subscale, results from Spearman's rho correlation coefficient revealed evidence of significant moderate negative correlation between

item 16 “*the best therapy for many mental patients is to be part of a normal community*” ($\rho = -.355$, $n=102$, $p < 0.001$) and item 20 “*the mental ill should be isolated from the rest of the community*” ($\rho = -.317$, $n=102$, $p < 0.001$).

Table 4.11: Correlation between familiarity & the total score, & subscale score on the CAMI-S.

Correlation		Spearman's rho Correlation Coefficient	P value	Sample
Subscale 1: Open minded and pro integration				
LOC	Item 1	-.256**	.009	n= 102
LOC	Item 2	-.415**	.000	n= 102
LOC	Item 3	-.395**	.000	n= 102
LOC	Item 4	-.211*	.033	n= 102
LOC	Item 5	-.219*	.027	n= 102
LOC	Item 6	-.166*	.096	n= 102
LOC	Item 7	-.320**	.001	n= 102
LOC	Item 8	-.292**	.003	n= 102
LOC	Item 9	-.398**	.000	n= 102
LOC	Subtotal score	-.376**	.000	n= 102
Subscale 2: Fear and avoidance				
LOC	Item 10	-.257**	.009	n= 102
LOC	Item 11	-.388**	.000	n= 102
LOC	Item 12	-.388**	.000	n= 102
LOC	Item 13	-.449**	.000	n= 102
LOC	Item 14	-.214*	.031	n= 102
LOC	Item 15	-.364**	.000	n= 102
LOC	Subtotal score	-.133	.184	n= 102
Subscale 3: Community mental health ideology				
LOC	Item 16	-.355**	.000	n= 102
LOC	Item 17	-.149	.135	n= 102
LOC	Item 18	-.181	.069	n= 102
LOC	Item 19	-.190	.056	n= 102
LOC	Item 20	-.317**	.001	n= 102
LOC	Subtotal	-.260**	.008	n= 102
LOC	Total score	-.379**	.000	n= 102

** . Correlation is significant at the 0.01 level (2-tailed)*

Correlation is significant at the 0.05 level (2-tailed). These results suggest that an increase in level of contact correlates with a decrease in scores in items 16 and 20. Table 4.11. also shows a significant small negative correlation between familiarity and subscale 3 ($\rho = -.260$, $n=102$, $p < 0.001$). However, the correlation coefficient is too weak to suggest a trend. Lastly, Spearman's rho correlation coefficient revealed a significant medium negative correlation between familiarity measured by LOC and the total score on the CAMI-S ($\rho = -.379$, $n=102$, $p < 0.001$). This result indicates that lower stereotyping attitudes in respect of the overall score on the CAMI-S are associated with the increased familiarity with persons who are mentally ill.

4.8. Summary of the chapter

Due to the nature of the study, the size of the sample ($n=102$) and the abnormal distribution of specific attitudes measured by CAMI-S, the researcher used non-parametric tests to compute associations and correlations. Different non parametric tests were used to analyze data, which included the Mann-Whitney U test and the Kruskal-Willis test to test associations between independent and dependent variables and the Spearman's rho correlation coefficient to test correlations between scales. A significance level of $<.05$ was considered as statistically significant. The results of this study revealed that the most stereotyping attitudes were found in responses to items 4, 6, 10, 11, 12, 13, 20. Results suggest that younger, less experienced nurses tended to hold greater negative stereotypes. The result of this study also revealed that level of contact (familiarity) is associated with the stereotyping attitudes held by participants towards persons with mental disorders.

The next chapter contains the discussion of findings, limitation of the study, conclusion and recommendations respectively.

CHAPTER FIVE

DISCUSSION OF DATA, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

Chapter five presents a discussion of the findings according to the research objectives, followed by the conclusion and recommendations within the context of the limitations of the study.

The study was conducted in a selected district hospital in Rwanda to assess stereotypical attitudes amongst nurses regarding persons with mental disorders and to explore the possibility of mediating relationships between specific socio-demographic factors (age, gender, qualification, professional experience and familiarity) and nurses stigmatizing attitudes towards persons with mental disorders.

5.2. Discussion

5.2.1. The extent of stereotypical attitudes amongst participating nurses

The findings from this study indicate that negative stereotypes towards persons with mental disorders are widely held amongst nurses working in the selected district hospital in Rwanda. These findings support observations in current international and local literature, suggesting that negative stereotypes about persons with mental disorders are not limited to members of the general public only, but also include health care providers working in the health sector who are in direct contact with mentally ill persons (Mavundla, 2000; Sharrock & Happell, 2006; Schulze, 2007a; Bjorkman et al., 2008; Arvaniti et al., 2009). However, Nordt, Rossler and Lauber (2006) suggest that psychiatrists and/or other health professionals generally have more positive attitudes towards mentally ill people than the general public.

Findings of the current study corroborate the findings of two studies conducted in Africa (Ukpong & Abasiubong, 2010; Barke et al., 2011). Both studies utilised the original CAMI and findings suggested that participants (senior staff members and medical students in their final years) reflected negatives stereotypes on similar items, such as 47.1% agreeing with the statement “*I would not want to live next door to someone who has been mentally ill*” (Ukpong &

Abasiubong, 2010). Results of a study conducted by Barke and colleagues (2011) on stigma of mental illness in Southern of Ghana amongst urban population and patients also reported participants' responses that illustrated negative stereotypes, with 50.72% of participants agreeing with the statement "*It is frightening to think of persons with mental problems living in residential neighbourhoods*", 47.76% agreeing that "*The best way to handle the mentally ill is to keep them behind locked doors*" and 42.14% agreeing that "*The mentally ill should be isolated from the rest of the community*" (Barke et al., 2011).

Like the results of this study, the desire for social distance is reflected in participants' responses to specific items. However, the findings of a study conducted by Ukpong and Abasiubong (2010) on stigmatizing attitudes towards the mentally ill amongst senior staff members and medical students in their final years in the Nigerian University Teaching Hospital reported few negative stereotypes; with only 16.3% of their respondents agreeing that "*It is frightening to think of persons with mental problems living in residential neighbourhoods*"; 18% stating that "*The best way to handle the mentally ill is to keep them behind locked doors*" and only 18.3% agreeing that "*The mentally ill should be isolated from the rest of the community*".

More participants in Barke and colleagues's (2011) study reflected negative stereotypes than those in Ukpong and Abasiubong's (2010) study; "*Mental health facilities should be kept out of residential neighbourhoods*" (39.8% versus 21.1%) ; and "*Local residents have good reason to resist the location of mental health services in their neighbourhood*" (34.11% versus 16.3%).

The findings from this study confirm that the majority of participants reflected positive attitudes regarding the location of mental health services within the community and acceptance of a person with a mental disorder to be a part of a the community, in principle. Questions related to the 'idea' of services being accessible in the community elicited agreement while responses to statements related to actually living next door to a person with a mental disorder produced disagreement and an implicit desire for social distance. This suggests consideration for the potential success for decentralization and integration of mental health into general health care (WHO, 2008b; Uys & Middleton, 2004).

The results of this study suggest clear evidence of resistance to persons with mental disorder receiving services within the community settings or living in the same residential neighbourhoods. There were also suggestions of fear as participants agreed that persons with mental disorders should be kept behind locked doors, isolating them from the community. Such

contradictions are consistent with previous studies. For example, the study conducted in Southern Ghana by Barke and colleagues (2011) noted contradictions in participants' responses, where favourable responses to community integration were coupled with negative responses to persons with mental disorders living and working within the community. Similar contradictions occurred in the study conducted by Ukpong and Abasiubong (2010).

In this study, participants reflected positive attitudes towards persons with mental disorders by agreeing that they do not pose a danger for the community, that they must be tolerated and accepted in residential neighbourhoods and that they should not be isolated or excluded from their community. However, the participants also showed evidence that they would not trust persons with mental disorders to provide child care and found it frightening to think of persons with mental problems living in residential neighbourhoods. Veer and colleagues (2006) found the same conflicting results where participants indicated that they would be comfortable living next door to mentally disabled persons, but acknowledged that they did not trust them for child care. Further, these contradictions occurred in findings from previous studies conducted on social desirability. For example, Putman's (2008) study found conflicting evidence where respondents agreed that having persons with mental disorder as neighbours would be acceptable, but at the same time agreeing that they are undesirable to have in the neighbourhood as they are likely to be violent. It is possible that the extent of neutral responses within this study is also a reflection of ambivalence.

The current study revealed more neutral responses than negative stereotypes in some of the items. For example, while 14.7% agreed, 45.1% of participants remained neutral to the statement *"Having mental patients living within residential neighbourhood's might be a good therapy, but the risk to the residents are too great"*. There were similar results on several others items where there were more neutral responses from participants than responses reflecting negative stereotypes. These included item 1 *"Residents should accept allocation of mental health facilities in their neighbourhood to serve the needs of the local community"*; item 8 *"We need to adopt a far more tolerant attitude towards the mentally ill in our society"*; item 14 *"Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services"*; item 15 *"Less emphasis should be placed on protecting the public from the mentally ill"*; item 17 *"The mental ill should not be treated as outcasts of society"*; item 18 *"As far as possible, mental*

health services should be provided through community based services"; and item 19 *"No one has the right to exclude the mentally ill from their neighbourhood"*. This may suggest that participants preferred to take a neutral position rather than exhibiting negative stereotypes towards persons with mental disorders.

These results are aligned with findings from the study conducted in Southern Ghana by Barke et al. (2011) suggesting that the second largest group of participants reflected neutral responses on the following items; item 5 *"Having mental patients living within residential neighborhoods might be a good therapy, but the risk to the residents are too great"*, item 12 *"It is frightening to think of people with mental problems living in residential neighbourhoods"*, item 14 *"Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services"* and item 18 *"As far as possible, mental health services should be provided through community based services"*.

These contradictions and neutral positions might be the result of social desirability bias (Griffiths, et al. 2006). This could reflect participants' recognition of the United Nations declaration of human rights, which asserts that everyone is equal and must be protected from any kind of discrimination, either direct or indirect, based on race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture and language (United Nations, 1995; Republic of South Africa, 1996; Republic of Rwanda, 2003). This declaration has been integrated into the constitutions of some African countries, including Rwanda, suggesting that no one can be discriminated against on the basis of his/her mental health status (Republic of Rwanda, 2003; Republic of South Africa, 1996). Furthermore, there should be no inequality in other aspects of life such as education, employment, housing and health care services.

This conflict reflected in the extent of participant's contradiction, and possible neutral position, has **implications for** rehabilitation and recovery. Siu, Ng, Li, Yeung, Lee and Leung (2012), Anthony & Farkas (2009) and Shepherd, Boardman, & Slade (2007) argue that mental health recovery is considered as a process of healing and transformation that is aimed at enabling persons with Severe Mental Illness (SMI) or mental disability to live a meaningful life in the community.

Current literature shows the people with SMI can recover and re-establish a lifestyle beyond the disability, thus living a satisfying and productive life, accomplishing valuable roles and becoming a part of their community (Weeks, Slade, & Hayward, 2010; Cleary & Dowling, 2009; Padgett, Henwood, & Drake 2008; Davidson, Roe, Andres- Human, & Ridgway 2010). This point of view is supported by Gibson, Amico, Jaffe and Arbesman (2011) who highlighted the importance of integration and social inclusion of MHCUs that aimed at increasing their self-esteem and independence to facilitate full recovery.

It is interesting to note that some of the contradictions that became evident in the study results also apply to some of the Rwandan Laws. For example, on one hand, the Rwandan constitution protects individuals against any discrimination based on their mental health status, yet on the other hand, persons who have been labelled with mental disorders are, through legislative policy, excluded from being candidates for election to different levels of governance, local or central (Rwandan National Election Commission, 2011). This issue of discrimination is specifically sensitive in Rwanda, where the genocide resulting from discrimination from one group to another is a source of national shame. Within this political context, it is suggested that participants may have chosen to take a neutral position rather than risk exhibiting exclusion and discriminative behaviour (Griffiths et al., 2006; Republic of Rwanda, 2003).

5.2.2. Potential mediating effects of demographic variables

Current literature reported the potential mediating effects of specific demographic variables on the process of stigma, specifically the beliefs and stereotypes that people can reflect towards a person with mental disorder (Arvaniti et al., 2009; Corrigan et al., 2001; Holmes et al., 1999; Kapungwe et al., 2010; Lauber, Nordt, Braunschweig, & Rossler, 2006; Martin et al., 2007; Link et al., 2004, Link and Phelan, 2001, Corrigan et al., 2005, Mouzas, Angelopoulos, & Liakoz, 2008).

5.2.2.1. Age

This study revealed that, with the exception of one CAMI-S item, the responses from the younger age group were associated with greater negative stereotypes. These findings are

consistent with the two studies conducted in Africa to investigate stigmatising attitudes. The first study, conducted on medical doctors in Western Nigeria by Adewaya & Oguntade (2007), revealed that the younger age of participants was significantly associated with high social distance towards the mentally ill. Similarly, the second study by Barke et al. (2011), on stigma of mental illness amongst the urban population and patients in Southern Ghana, revealed that younger people reflected more negative stereotypes than older people on social restrictiveness, suggesting that social restrictiveness decreased with age.

Other international studies also support the decrease in negative stereotypes with increasing age suggesting that older people reflected less negative stereotypes than younger people within the all studied dimensions (Fuermaier, Tucha, Koerts, Mueller, Lange, & Tucha, 2012; Mouzas et al., 2008). In addition, a study conducted by Bjorkman and colleagues, in 2008, revealed associations between age and negative attitudes about different psychiatric conditions. For instance, older participants reflected less negative attitudes than younger participants concerning the potential danger associated with persons with schizophrenia.

Lastly, Arvaniti and colleagues (2009) argued that people over 30 years of age were more familiar with mental illness than younger participants and that being older was associated with lower levels of social integration. However, the findings of the current study are generally incongruent with studies suggesting that older people reflected greater negative stereotypes than younger people (Laurel, Alexander, & Link, 2003; Golberstein, Eisenberg, & Gollust, 2008).

5.2.2.2. Gender

The current study revealed no statistical difference between gender and specific attitudes except on the item *Mental health facilities should be kept out of residential neighbourhoods*. This is surprising as females are traditionally more socially distancing than males, who are expected to be outwardly braver than women (Adewaya & Oguntade, 2007).

The findings of the current study are contrary to findings reported by Adewaya and Oguntade (2007) and Barke and colleagues (2011). Adewaya & Oguntade (2007) in Western Nigerian reported that gender is significantly associated with social distance towards the mentally ill. Barke et al. (2011) reported gender associations for the subscale authoritarianism with women

reflecting authoritarian views more strongly than men (Barke et al., 2011). In addition, this study findings are contradictory to international studies that reported strong associations between stigmatizing attitudes and gender (Song et al., 2005; Golberstein et al., 2008; Bjorkman, et al., 2008; Fuermaier et al., 2012, Madianos, Economou, Peppou, Kallergis, Rogakou, & Alevizopoulos, 2012).

5.2.2.3. Level of education

The findings from the current study revealed no associations between negative stereotypes and the level of education of participants. However, Everton and Madina (2008) suggested that education should not only help students to achieve a higher level of cognitive complexity, but that they are also exposed to diverse patterns of behaviours and social situations through higher education.

This view point is revealed in a study conducted in Southern Ghana by Barke et al., (2011) that revealed small to medium differences in level of education, indicating that people with secondary education tended to hold more positive views on persons with mental disorders than those with only basic education. International studies also reported statistically significant associations in this area (Laurel, Alexander, & Link, 2003; Song et al., 2005).

Laurel and colleagues (2003) found that a higher level of education was associated with lower levels of perceived dangerousness and the desire for social distance to persons with mental disorders.

Song and colleagues (2005), in Taiwan, found that education was significantly associated with stigmatizing attitudes, whereby participants attending college or respondents with any higher education reflected more positive attitudes towards persons with mental disorders than those who had low levels of education. However, the findings from the current study corroborate findings from the more recent study by Arvaniti and colleagues (2009) that reported no statistically significant differences for education.

5.2.2.4. Qualification and experience

The findings of the present study revealed that registered nurses had less negative stereotypes regarding fear and avoidance and had a greater community mental health ideology than enrolled nurses. These findings are incongruent with findings of the study by Bjorkman and colleagues

(2008) that revealed no differences between registered nurses and assistant nurses with regard to attitudes towards persons with mental disorders.

Findings in relation to less experience being associated with negative stereotyping are similar to the findings from Adewaya and Oguntade's (2007) study in Western Nigeria that reported significant associations between participants' years of experience and social distance towards the mentally ill, suggesting that professionals with more experience reflected lower stigmatizing attitudes.

These findings are **incongruent** with international studies which revealed correlations between professional experience and less negative attitudes with regard the dangerousness and unpredictability of people with schizophrenia (Lauber et al., 2006; Bjorkman et al., 2008). According to the above authors, nursing staff with longer professional experience are likely to reflect less negative attitudes generally towards persons with specific mental disorders including panic attacks, schizophrenia, eating disorders dementia and depression.

5.2.3. Correlation of familiarity with negative stereotypes

As reported in chapter four, participants in this study reported a high level of contact with persons with mental disorders. Study results revealed a negative correlation between familiarity and negative stereotypes suggesting a mediating relationship between familiarity with persons with mental disorders and negative stereotypes towards mentally ill people. In other words, decreased negative stereotypes were associated with increased familiarity.

These results are consistent with findings reported in literature from studies carried out on both the general population and health care providers, suggesting a significant negative correlation between familiarity and stigmatizing attitudes (Corrigan et al., 2001; Angermeyer, Matschinger, & Corrigan, 2003; Holmes et al., 1999; Markström, Gyllensten Bejerholm, Björkman, Brunt, Hansson, Leufstadius, Sandlund, Svensson, Östman, & Eklund, 2009). These authors suggest that individuals who have a relative or a friend with a mental disorder do not generally perceive mentally ill persons as being dangerous and therefore desire less social distance from them.

In the study by Adewaya and Oguntade (2007) in Western Nigeria which assessed doctors' attitudes towards people with mental illness, the authors also found that having a family member

with a mental disorder lessened the doctors perceptions of social distance towards persons with mental disorders. Also, findings of a study conducted by Adewayu and Maknjuola (2008) on social distance towards people with mental illness in South Western Nigeria suggested that high social distance towards people with mental disorder correlates with having never having cared for someone who is mentally ill. However, findings from this study contrast with other previous studies that have been conducted in Africa (Smith & Middleton, 2010; James et al., 2012). For example, the study by Smith and Middleton (2010), in South Africa, included a representative sample of potential employers who had high levels of intimate contact with persons with serious mental illnesses, and reported evidence of no relationship between familiarity and the extent of negative stereotyping or desire for social distance.

Also, findings from a study conducted by James and colleagues (2012) in Southern Nigeria on stigmatizing attitudes held by medical students and interns towards persons with mental illnesses suggested no significant correlation between familiarity with mental disorder, depression or schizophrenia and stigmatizing attitudes.

The findings from this study are congruent with findings from an international study by Bjorkman et al. (2008) on attitudes towards people mentally ill amongst nursing staff in psychiatric and somatic care, which suggest a positive correlation between a higher ranking score of intimacy with mental illness regarding talking to person with schizophrenia. Nursing staff with a higher ranking score of intimacy with mental illness also had more positive attitudes about improving treatment for severe depression and prospects of recovery from severe depression. However, the study also revealed negative attitudes amongst participants about prospects of recovery from dementia.

A study conducted on nursing students by Ewalds-Kvist, et al., (2012) reported similar findings. These authors stressed that contact creates a positive intergroup coalescence which leads to an improvement in intergroup relations. In addition, the effect of extended contact relates to more positive attitudes and reduced prejudice. Furthermore, multiple studies have documented the benefits of nurses' professional relationships with their patients, highlighting that perceived dangerousness and other negative stereotypes towards persons with mental disorder are lower amongst people who work or volunteer at mental health facilities (Corrigan et al., 2001; Roth, Antony, Kerr, & Downie, 2000, Angermeyer et al., 2003; Bjorkman et al., 2008).

The results of this study suggest that familiarity with mental disorders, in the form of contact, can have the effect of reducing perceived personal threats. This is in keeping with the work of Pettigrew & Tropp (2006), where contact is described as mediating the prejudice of the ‘in-group’ towards the ‘out-group’. These authors’ work suggests that the more familiar health care practitioners and the public are with mental illness, the less will be the negative stereotyping resulting in discriminatory practices (Pettigrew, 1998; Pettigrew & Tropp, 2006).

5.3. Limitations of the study

The first limitation is that this study was conducted in only one district hospital in Rwanda so the findings cannot be generalised to other district hospitals. The Hawthorne effect may have influenced results, whereby participants’ responses might have been distorted due to the presence of the researcher in the research setting, specifically as the researcher is a former employee of the research setting (Maree, 2008). In addition, due to the former employee status of the researcher, management were very visible in their support of the data collection process. The researcher had anticipated potential discomfort and had therefore used implied consent, the posting of completed questionnaires and active reiteration of voluntary participation as strategies to reduce social desirability.

5.4. Conclusions and recommendations

The study revealed negative stereotypes amongst nurses towards persons with mental disorders. Although participants seemed to agree, in principle, that mental health care facilities can, and should be, placed in communities, they also expressed a desire for social distance from persons with mental disorders. These contradictions and high levels of neutral responses may suggest that the responses reflected social desirability bias.

Familiarity did have a mediating effect on negative stereotypes and may be the foundation for changing attitudes within general health care settings.

This study can assist in developing a base line of the stigmatizing attitudes evident towards people with mental disorder in general health care settings in Rwanda. The results of this and other African studies can assist in targeting the most common negative stereotypes (Ukpong & Abasiubong, 2010; Barke et al., 2011).

Additional research is recommended. Firstly, additional research particularly depth qualitative study is required to clarify the contradictions and to identify possible questions that was not asked in this research tools. It is suggested that scales that measure social desirability bias be included in further research studies to determine the extent of mediation or moderation of this construct.

Secondly, intervention studies, specifically with general health care practitioners, are required to obtain empirical data related to the combined effectiveness of disconfirming information and contact with people with mental disorders.

In response to the current evidence, there are strategies that can be implemented at both local and national level. Specifically, within the general health care settings, it is suggested that management organize regular in-service training of nurses regarding mental disorder management and the integration of mental health services within the hospital. Workshops and seminars could also be organized within the hospital, which could include MHCUs. They would not only be able to provide testimonies, but this would increase the level of contact between them and the nursing staff. It is also recommended that nurses have increased contact with specialist care environments through visits to the specialist referral psychiatric hospital to make them more familiar with persons with mental disorders.

Within the Faculty of Nursing in KHI and the Nursing and Midwifery schools in Rwanda, it is suggested that curricula provide opportunities for exposure of students to persons with mental disorder throughout their training by increasing their collaboration with the specialist Psychiatric Hospital in Rwanda, thus increasing their level of contact; using simulated psychiatric patients in the skillslab before going into clinical practice.

Knowledge about mental illness can be enhanced through role playing, watching videos and group discussions. Workshops, seminars, conferences and discussions can be organized within the school which could include MHCUs to provide testimonies, which will in turn increase the level of contact amongst students and their lecturers.

In addition it is suggested that the curriculum review committee should review the curriculum of undergraduate nursing education and develop continuous mental health nursing modules within the education programme that specifically address the issue of stigma.

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World Health Organisation. (2008b). Integrating mental health into primary care: A global perspective. Geneva.

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World Health Organization. (2011). WHO Mental Health Atlas 2011. Assessed on 12th July 2012. Available at <http://whqlibdoc.who.int/publications/2011/9799241564359-engpdf>.

ANNEXURES

ANNEXURE 1: Data collection instruments

QUESTIONNAIRE

Thank you for agreeing to participate in this study. The questionnaire has three sections. Please complete all items in each section.

Please DO NOT write your name on the questionnaire

There are a total of 32 items in section two and three. The completion of the entire questionnaire should take approximately 20 minutes. Once you have completed all the questions please place the questionnaire in the box provided.

Section one

What was your age in years at your last birthday?

1. Age (years):

Please complete the other questions in the section by ticking the box that represents your answer. One choice per question

2. What is your gender?

- Female
- Male

3. What is your highest Educational qualification?

- Diploma
- Advanced Diploma
- Bachelor's Degree
- Master's Degree

4. What category of nurse are you?

- Auxiliary Nurse (A3)

- Enrolled nurse (A2)

- Registered nurse (A1)

5. Please fill in the number of years you have been working as a nurse as at the end of December 2012

Section two

This section contains 12 statements. After reading each statement please indicate YES or NO, by ticking the correct box, if you have experienced this level of contact with a person with a mental disorder?

Please do this for every item, 1 – 12.

Item	YES	NO
1. I have watched a movie or television show in which a character depicted a person with mental disorder.		
2. My job involves providing services/ treatment for persons with mental disorder		
3. I have observed, in passing, a person I believe may have had a mental disorder		
4. I have observe a person with a mental disorder on a frequent basis		
5. I have mental disorder		
6. I have worked with a person who had mental disorder at my place of employment		
7. I have never observed a person that I was aware had mental disorder		
8. My job including providing services to persons with mental disorder		
9. A friend of the family has mental disorder		
10. I have a relative who has a mental disorder		
11. I have watched a documentary on the television about mental disorder		
12. I live with a person who has mental disorder		

Section three.

Please indicate your opinion regarding each of the statements, 1 – 20 below.

You have options from strongly agree – strongly disagree. Select only one per item

Item	Strongly Agree	Agree	I am Neutral	Disagree	Strongly Disagree
1. Residents should accept the location of mental health facilities in their neighbourhood to serve the needs of the local community					
2. Most persons who were once patients in a mental Hospital can be trusted as babysitters					
3. Locating mental health services in residential neighbourhoods does not endanger local residents					
4. Mental health facilities should be kept out of residential neighbourhoods.					
5. Having mental patients living within residential neighbourhoods might be a good therapy, but the risks to the residents are too great					
6. Local residents have good reason to resist the location of mental health services in their neighbourhood					
7. Mental disorder is an illness like any other					

	Strongly Agree	Agree	I am Neutral	Disagree	Strongly Disagree
8. We need to adopt a far more tolerant attitude towards the mentally ill in our society					
9. The mentally ill are far less of a danger than most people suppose					
10. It is best to avoid anyone who has mental problems.					
11. I would not want to live next door to someone who has been mentally ill					
12. It is frightening to think of people with mental problems living in residential neighbourhoods					
13. The best way to handle the mentally ill is to keep them behind locked doors					
14. Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services					
15. Less emphasis should be placed on protecting the public from the mentally ill					
16. The best therapy for many mental patients is to be part of a normal community					
17. The mentally ill should not be treated as outcasts of society.					

	Strongly Agree	Agree	I am Neutral	Disagree	Strongly Disagree
18. As far as possible, mental health services should be provided through community based facilities					
19. No one has the right to exclude the mentally ill from their neighbourhood					
20. The mentally ill should be isolated from the rest of the community					

THANK YOU FOR YOUR TIME

Now please put the completed questionnaire in the box provided

ANNEXURE 2: Questionnaire translated in French

Merci d'avoir accepté de participer à la présente recherche. Le questionnaire comporte trois sections. Dans chaque section, nous vous prions de répondre à toutes les questions de chaque section.

Vous n'avez pas besoin de mentionner votre nom sur le questionnaire

Il ya 32 questions au total dans la deuxième et troisième section et ça va prendre à peu près 20 minutes pour répondre à ses différentes questions. Une fois que vous avez fini de répondre à ces questions, vous remettrez le questionnaire dans la boîte réservée pour ça.

Section 1

1. Quel est votre âge (No d'années):

Svp répondez à d'autres questions dans chaque section en cochant dans le box correspondant à votre réponse. Une seule alternative par question.

2. Quel est votre sexe ?

- Féminin:
- Masculin:

3. Quel est votre plus niveau d'étude ? (Quel est votre niveau d'étude le plus élevé ?)

- Humanités:
- A1:
- Licence:
- Maitrise:

4. Quelle catégorie d'infirmier (ère) appartiens- tu ?

- Auxiliary Nurse (A3):
- Enrolled nurse (A2):
- Registered nurse (A1):

5. SVP! Complétez le nombre d'années que tu as travaillé en tant qu'un infirmier (infirmière) jusqu' à la fin du mois de Décembre 2012.

Section 2

Cette section comprend 12 situations. Après avoir lu chaque situation, vous allez indiquer votre réponse par OUI ou NO

SVP! Faites- le pour toutes les situations présentées.

Item	YES	NO
1. J'ai vu un film ou un programme télévisé montrant un caractère correspondant à celui d'une personne ayant des troubles mentaux		
2. Mon travail est de donner des soins aux personnes ayant des troubles mentaux		
3. J'ai vu, en passant, une personne que je crois pourrait avoir eu un trouble mental		
4. J'ai fréquemment vu une personne présentant des troubles mentaux		
5. Je souffre de troubles mentaux		
6. J'ai travaillé avec une personne ayant des troubles mentaux		
7. Je n'ai jamais observé une personne reconnu avoir des troubles mentaux		
8. Mon travail inclut aussi dispenser les services de soins aux personnes ayant les troubles mentaux		
9. Un(e) ami(e) de ma famille souffre de troubles mentaux		
10. J'ai un membre de ma famille ayant des troubles mentaux		
11. J'ai vu un film documentaire à la télévision en rapport avec les troubles mentaux		
12. Je vis avec une personne souffrant des troubles mentaux		

Section 3

SVP! Indiquez votre opinion pour chaque situation, 1- 20 ci-dessous. Vous avez les options allant de tout à fait d'accord jusqu'à tout à fait désaccord Tout à fait d'accord et Tout à fait en désaccord. Vous choisissez seulement une pour chaque question.

Item	Tout à fait d'accord	D'accord	Sans opinion	En désaccord	Tout à fait en désaccord
1. Les habitants doivent accepter l'emplacement des services de santé mentale dans leur voisinage pour servir des besoins de la communauté locale					
2. La majorité de personnes qui une fois ont été hospitalisé dans un hôpital psychiatrique peuvent garder les enfants à la maison.					
3.L'emplacement des services de santé mental dans les lieu de résidence ne met pas en danger ses habitants					
4. Les services de santé mentale doivent être placés à l'extérieur des lieux de résidence					
5. Avoir les malades mentaux dans les lieux de résidence peut favoriser le traitement mais des risques aux habitants sont très élevés					
6. Les habitants de la communauté ont de bonne raison de résister à l'emplacement du service de santé mentale dans leur voisinage.					
7. Les troubles mentaux sont des maladies comme tant d'autres					

	Tout à fait d'accord	D'accord	Sans opinion	En désaccord	Tout à fait en désaccord
8. Nous devons adopter des attitudes de tolérance envers les personnes mentalement affectées dans notre société					
9. Les personnes mentalement affectées sont moins dangereux que les gens le pensent.					
10. C'est bon d'éviter n'importe qui ayant des troubles mentaux					
11. Je n'ai pas envie de cohabiter avec une personne qui a été mentalement malades					
12. Ça fait peur quand on pense à vivre avec les personnes ayant des troubles mentaux dans les lieux de résidence.					
13. La bonne façon de gérer les personnes mentalement malades, c'est de les garder enfermées dans les chambres.					
14. Les habitants n'ont rien à craindre envers les personnes qui viennent dans leur voisinage pour obtenir les services de santé mentale					
15. On doit mettre moins d'importance sur la protection du publique contre les personnes mentalement malades					
16. La bonne thérapie aux malades mentaux, c'est de les intégrer socialement dans la communauté.					

	Tout à fait d'accord	D'accord	Sans opinion	En désaccord	Tout à fait en désaccord
17. Les personnes mentalement malades ne doivent pas être traitées marginalement.					
18. Autant que possible, les services de santé mentale doivent être donnés et disponibles à travers les structures sanitaire basées sur communauté.					
19. Personne n'a droit d'exclure les personnes mentalement malades de leur voisinage.					
20. Les personnes mentalement malades doivent être isolées de leur communauté.					

Merci de votre disponibilité

Remettez le questionnaire rempli dans la boîte qui vous a été réservée

ANNEXURE 3: Permission letter from the author of CAMI-S

Amanda Smith

From: baziga védaste <vedastebaziga1@yahoo.fr>
Sent: 25 September 2013 09:15 PM
To: Amanda Smith
Subject: Tr : Ang: Research proposal

----- Mail transféré -----

De : baziga védaste <vedastebaziga1@yahoo.fr>
À : MANDY UKZN <Smitha1@ukzn.ac.za>
Envoyé le : Samedi 21 septembre 2013 9h45
Objet : Tr : Ang: Research proposal

----- Mail transféré -----

De : Torbjörn Högberg <torbjorn.hogberg@sll.se>
A : vedastebaziga1@yahoo.fr
Envoyé le : Dimanche 21 octobre 2012 19h45
Objet : Ang: Research proposal

Dear Mr Baziga

You have my permission to use the CAMI-instrument as a tool for your study "**Describing Nurses attitudes towards persons with mental disorder in a selected District Hospital setting in Rwanda**"

Kind regards
//Torbjörn Högberg (PhD.)

Vänliga hälsningar:
Torbjörn Högberg
Sektionschef

Phone: +46 (0)73 966 16 19

Sektionen för akut- och hälldygnavård
Berendecentrum Stockholm
Vårdvägen 11, plan 2
S + Görans Sjukhus
112 81 Stockholm
www.berendecentrum.se

Stockholms Läns Sjukvårdsnämnde (SLSO)
Stockholm County Council, Health Care provision
www.slsosll.se

Before printing this email, please consider your responsibility to the ENVIRONMENT

-----baziga védaste <vedastebaziga1@yahoo.fr> skrev: -----

Till: Torbjörn Högberg <torbjorn.hogberg@sll.se>
Från: baziga védaste <vedastebaziga1@yahoo.fr>
Datum: 2012-10-21 15:37
Ärende: Research proposal

Dear **Torbjörn Högberg**,

ANNEXURE 4: Information document

Dear Nurse,

My name is Vedaste BAZIGA, I am a Master's (mental health) student at University of KwaZulu-Natal, School of Nursing and Public Health. In addition I am Tutorial Assistant in Kigali Health Institute.

As part of my studies I am conducting a research study titled "*Describing nurses attitudes towards persons with a mental disorder in a selected district Hospital setting in Rwanda*"

I am writing to you to provide some information about the study and ask you to participate.

This study involves all nurses working in Byumba District Hospital. The purpose of the study being to ask for your opinions regarding persons with a mental disorder. This seems pertinent as the Ministry's goal is to integrate mental health care into district Hospitals and Health Centers and it is my objective to be able to describe your perceptions regarding contact with persons with a mental disorder.

In order to establish your thoughts, if you choose to participate, you will be asked to complete a questionnaire. Completing the questionnaire is voluntary and you have right to withdraw at any time before the completed questionnaire is placed in the data collection box. Once the questionnaire is placed in the data collection box it will not be possible to determine which one is yours and thus the questionnaire cannot be removed. There are no right or wrong answers, just your opinion. In addition you will not be required to write your name on the questionnaire, you can be reassured that your anonymity is guaranteed and that your participation has no professional or personal consequences for you. As indicated earlier, once the completed questionnaire is placed on the data collection box none can identify whose response belongs to whom.

Completing the questionnaire will take approximately 20 minutes and requires ticking options only. Attached is the data collection schedule that has been negotiated with Nursing Management, indicating when I will be in your ward.

Below are my contact details and those of my supervisor. You may contact either of us should you have any questions.

There is researcher and supervisor address you may contact when you need it.

Thank you!

Researcher

Vedaste BAZIGA

Howard College campus

Health University of KwaZulu-Natal

Cell phone: 0735547088

Or vedastebaziga1@yahoo.fr

Supervisor

Ms A.A.H. Smith

email: smitha1@ukzn.ac.za

ANNEXURE 5: Application to gatekeepers for permission to conduct a research project

Vedaste BAZIGA
University of KwaZulu-Natal
School of Nursing and Public Health
Howard College Campus
Cell: 0735547088
E-mail: vedastebaziga1@yahoo.fr

To: The Director of Byumba District Hospital

Dear Sir,

RE: Requesting a permission to conduct a research project

I am a pursuing Masters in Nursing (Mental Health) at University of KwaZulu-Natal (UKZN), School of Nursing and Public Health. . The title of proposed study is “*Describing nurses attitudes towards persons with a mental disorder in a selected district Hospital setting in Rwanda*”. I hereby request a permission to collect data from nurses working at your institution.

I have received ethical approval from UKZN’s ethics committee, proof attached.

The data collection process is outlined in the attached research proposal, (page,19). The information sheet specifically outlines the information that will be given to potential participants (page, 6).

Should you have any questions or concerns please do not hesitate to contact me or my research supervisor.

Yours sincerely

Vedaste BAZIGA

E-mail: vedastebaziga1@yahoo.fr

Supervisor: Ms AA H Smith

Email: smitha1@ukzn.ac.za

ANNEXURE 6: Full ethical approval from UKZN ethical committee



6 February 2013

Mr Bazila Vedaste 212558609
School of Nursing and Public Health
Howard College Campus

Protocol reference number: HSS/1280/012M
Project title: Describing Nurses Stigmatizing Attitudes Towards Persons with a Mental Disorder in a selected District Hospital Settings in Rwanda.

Dear Mr Vedaste

Expedited approval

This letter serves to notify you that your application in connection with the above has now been granted full approval.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach/Methods must be reviewed and approved through an amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. Please note: Research data should be securely stored in the school/department for a period of 5 years

Best wishes for the successful completion of your research protocol.

Yours faithfully


.....
Professor Steven Collings (Chair)

/s/

cc Supervisor Ms AAH Smith
cc Academic Leader Professor M Mars
cc School Administration Mrs Caroline Dhanraj

Professor S Collings (Chair)
Humanities & Social Sc Research Ethics Committee
Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54007, Durban, 4000, South Africa
Telephone: 031 260 2507/260 2501 Facsimile: 031 260 4629 Email: s.collings@ukzn.ac.za / s.collings@ukzn.ac.za
Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

INSPIRING GREATNESS



ANNEXURE 7: Ethical approval from KHI Institutional Review Board on behalf of the NEC



KIGALI HEALTH INSTITUTE

B.P. 3286 Kigali, RWANDA
Tel: + (250) 572172; +250 571788

Institutional Review Board

8th January 2013

KHI/IRB/19/2013

BAZIGA Vedaste
Faculty of Nursing Sciences
Mental Health Department
Kigali Health Institute

Dear Mr BAZIGA Vedaste

RE: ETHICS CLEARANCE

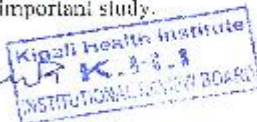
Reference is made to your application for ethics clearance for the study entitled *"Describing Nurses Stigmatising Attitudes towards Persons with Mental Disorder in a Selected District Hospital Setting in Rwanda"*. You will be pleased to learn that the ethics clearance has been granted to your study by the KHI Institutional Review Board (IRB) on behalf of the National Ethics Committee (NEC) in accordance with the authority granted to the IRB by the National Ethics Committee letter of 15th May 2010 and in line with the "Rwanda Ministry of Health Guidelines for Researchers Intending to Do Health Research in Rwanda" of February 2012.

You shall be required to submit the progress report and any other major changes made in the proposal during the implementation stage. Also, at the end of the study the Institutional Review Board shall also require to be given a final report of the study.

I wish you success in this important study.


Prof. Kato I. N. JUNWA

Chairperson, KHI Institutional Review Board



Cc:

- Rector, KHI
- Vice Rector, Academics and Research, KHI
- Chairperson, Rwanda National Ethics Committee
- Members of IRB

ANNEXURE 8: Permission to conduct a research project

REPUBLIC OF RWANDA



**NORTHERN PROVINCE
GICUMBI DISTRICT
BYUMBA HOSPITAL
E-mail: hopyumba@yahoo.fr
TEL: 252564329
21st January 2013
Ref No 20/25/HOPBY/2013**

**Mr BAZIGA Vedaste
Faculty of Nursing Sciences
Mental Health Department
Kigali Health Institute**

Dear Sir,

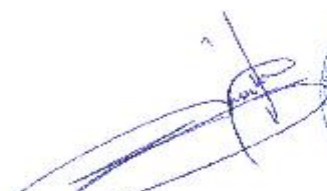
RE: Permission to conduct a research project

Reference is made to your application for permission to conduct a research project entitled "*Describing nurses stigmatizing attitudes towards persons with a mental disorder in a selected district hospital setting in Rwanda*". In Byumba Hospital, I have pleasure to inform you that the permission has been granted.

You shall be requested to submit the progress report and any other major changes made in the proposal during the implementation stage. Also at the end of the study, the management of Byumba Hospital shall require to be given a final report of the study.

I wish you success in the present study

Sincerely,


**Dr Fred MUHAIRWE
Medical Director of Byumba hospital**



ANNEXURE 9: Editing Declaration

Editing Declaration

P O Box 531
Hillcrest
3650
KwaZulu-Natal

2013-09-23

TO WHOM IT MAY CONCERN

Thesis Title: Describing Nurses' Stigmatising Attitudes Towards Persons With Mental Disorders in a Selected District Hospital in Rwanda

Author: Védaste Baziga

This is to certify that I have edited the above thesis from an English language perspective and have made recommendations to the author regarding spelling, grammar, punctuation, structure and general presentation.

A marked-up version of the thesis has been sent to the author and is available as proof of editing.

I have had no input with regard to the technical content of the document and have no control over the final version of the thesis as it is the prerogative of the author to either accept or reject any recommendations I have made.

I accept no responsibility for the final assessment of the document

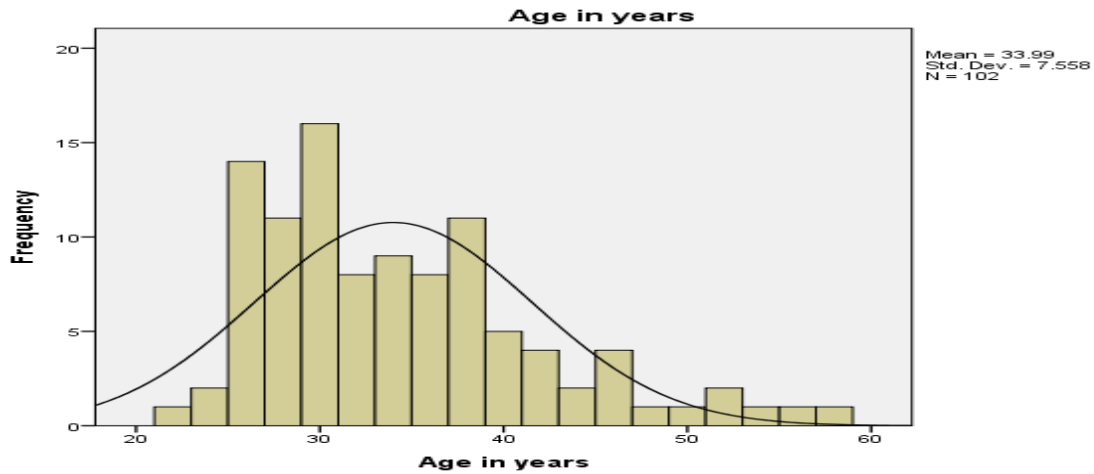
Yours faithfully

A handwritten signature in black ink, appearing to read 'Margaret Addis', with a horizontal line underneath.

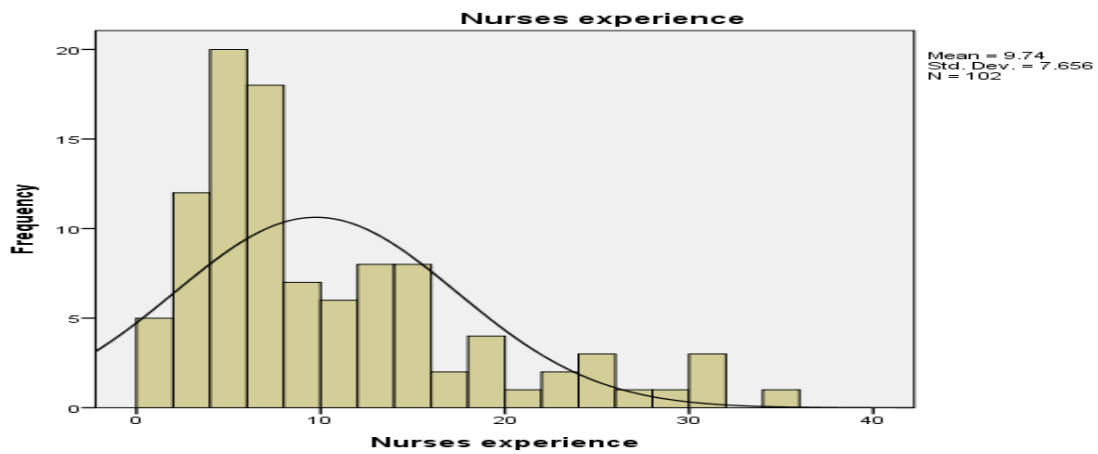
Margaret Addis

ANNEXURE 10: Graphs

Histogram A: Age distribution of respondents

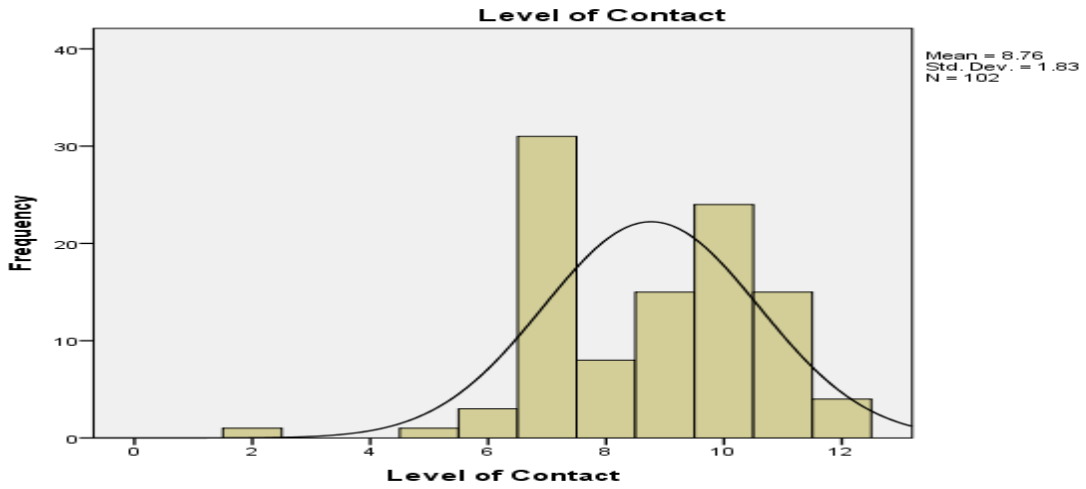


Histogram B: Experience distribution of participants

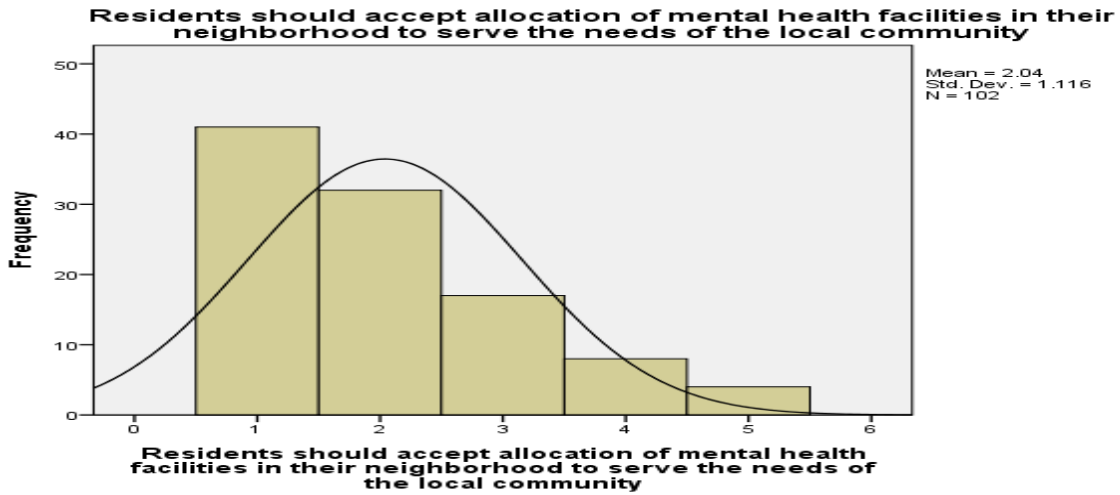


Histogram C: Distribution of participants according to the LOC with a mental

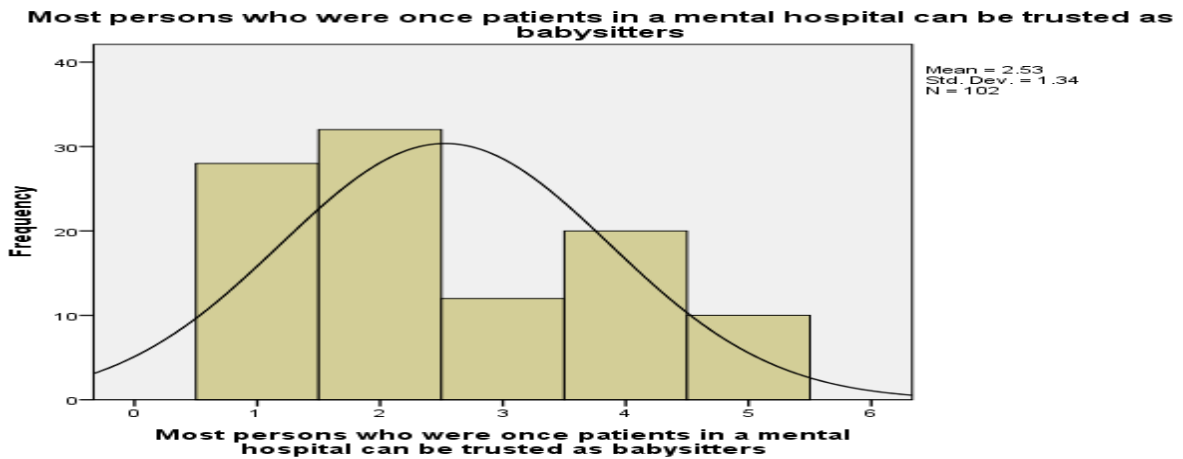
disorder



Histogram D:



Histogram E:



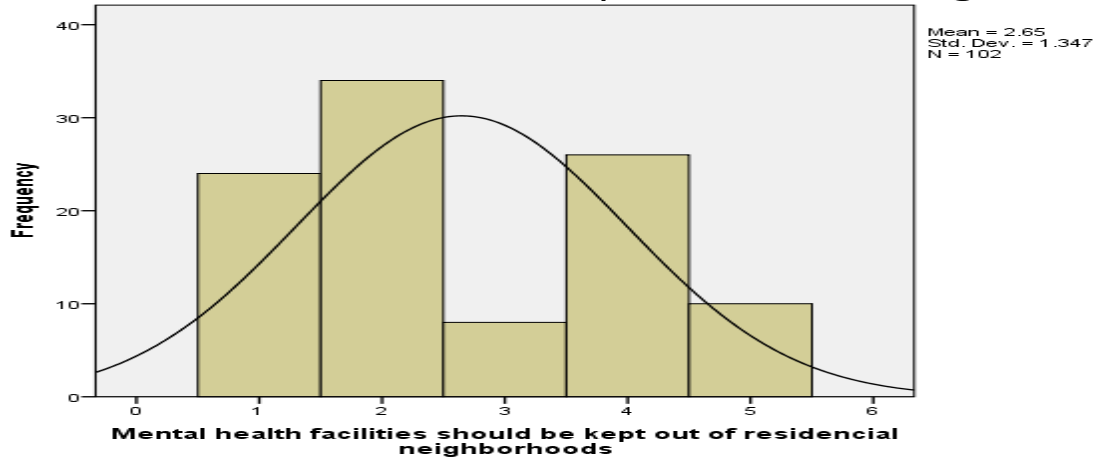
Histogram F:

Locating mental health services in residential neighborhoods does not endanger local residents



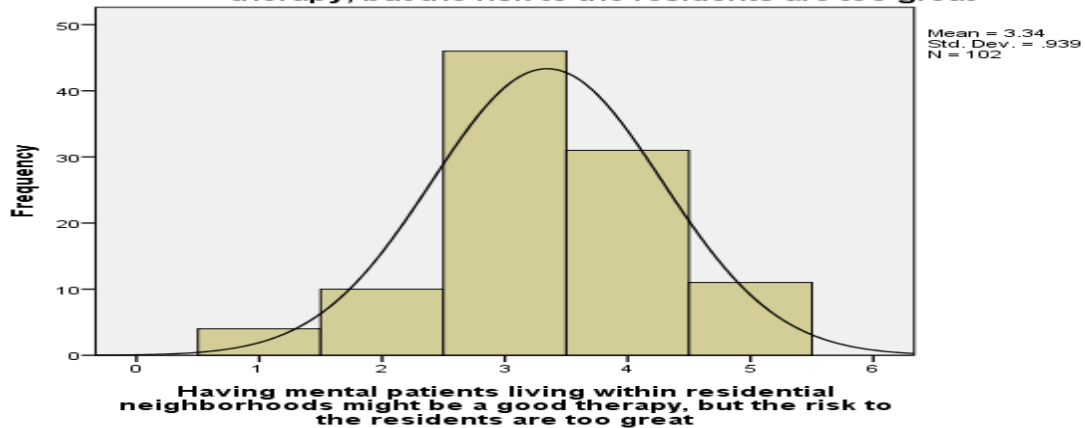
Histogram G:

Mental health facilities should be kept out of residential neighborhoods



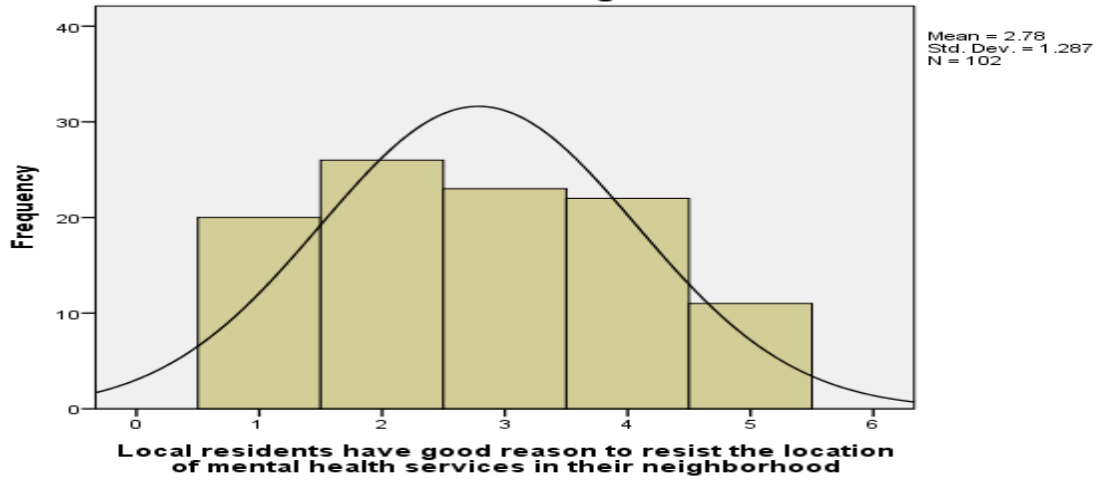
Histogram H:

Having mental patients living within residential neighborhoods might be a good therapy, but the risk to the residents are too great



Histogram I:

Local residents have good reason to resist the location of mental health services in their neighborhood



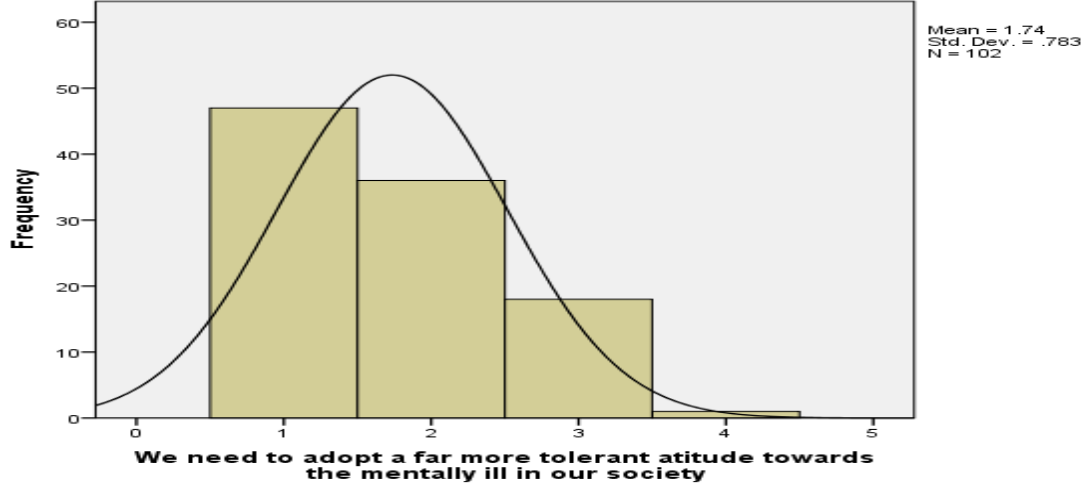
Histogram J:

Mental disorder is an illness like any other



Histogram K:

We need to adopt a far more tolerant attitude towards the mentally ill in our society



Histogram L:

The mentally ill are far less of a danger than most people suppose

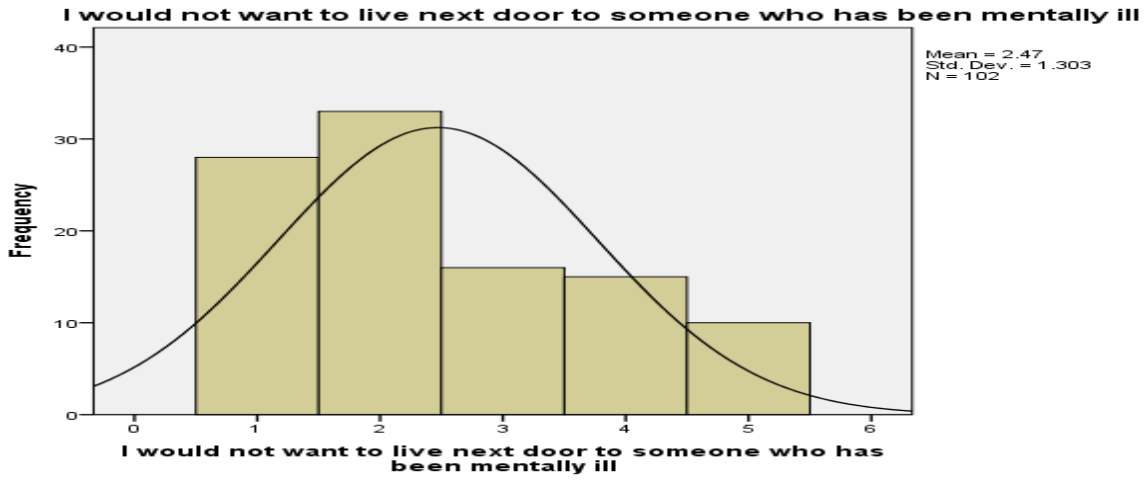


Histogram M:

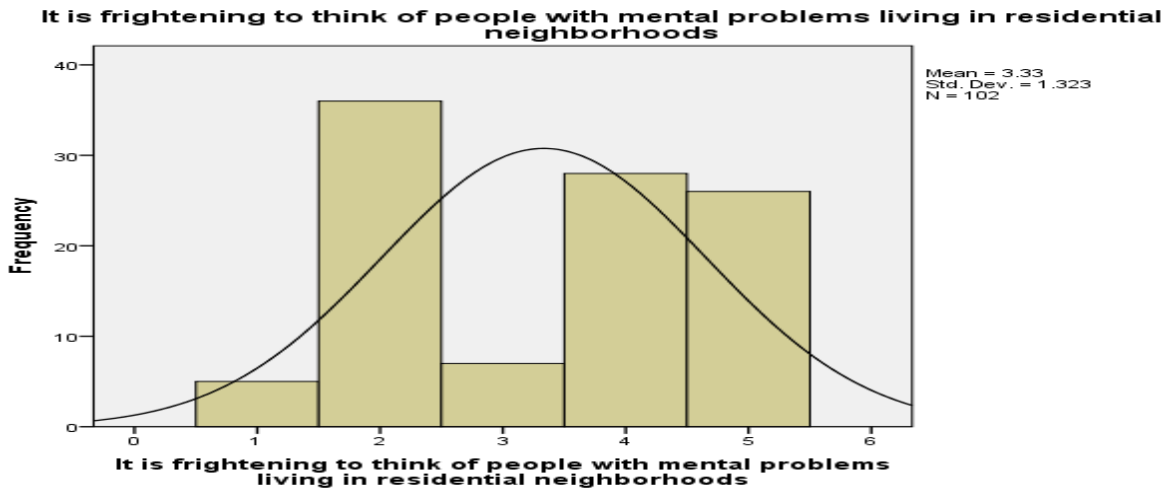
It is better to avoid any one who has mental problems



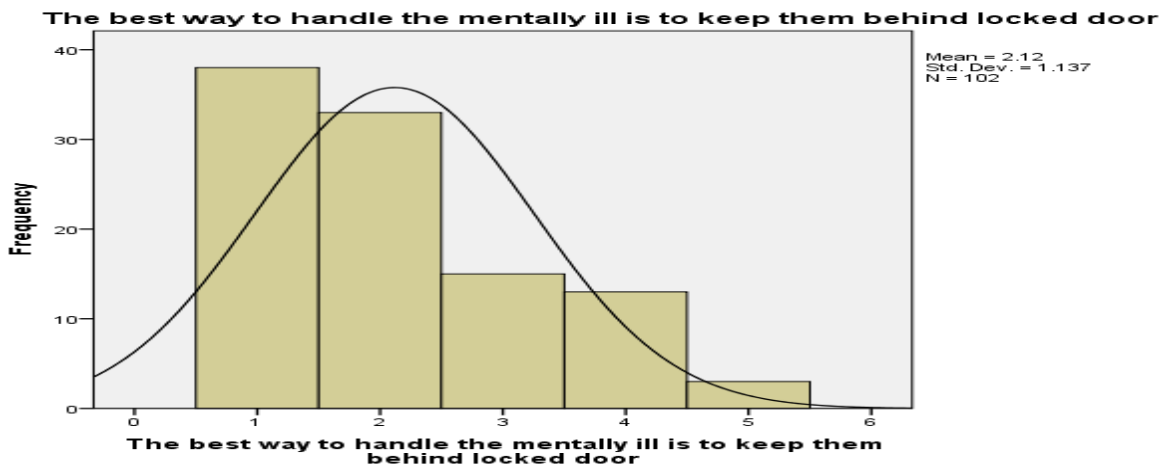
Histogram N:



Histogram O:



Histogram P:



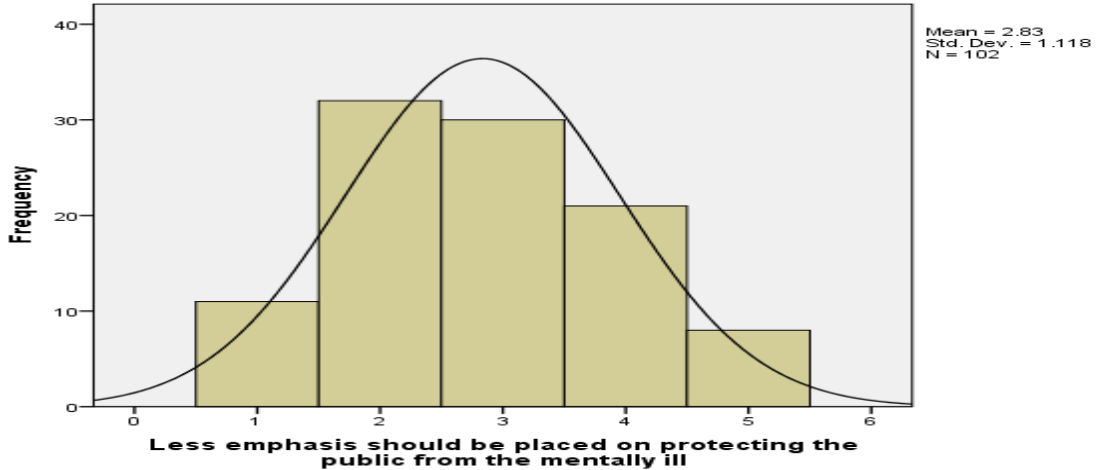
Histogram Q:

Residents have nothing to fear from people coming into their neighborhood to obtain mental health services



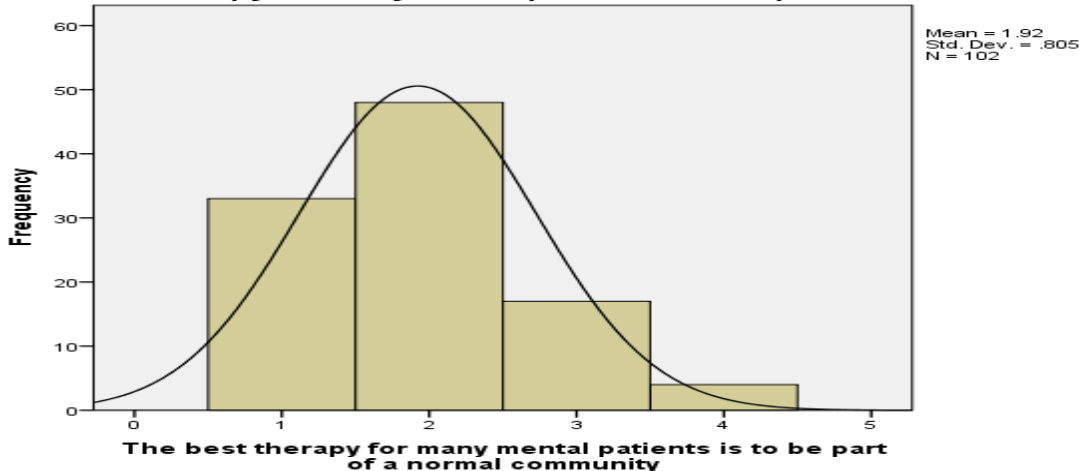
Histogram R:

Less emphasis should be placed on protecting the public from the mentally ill

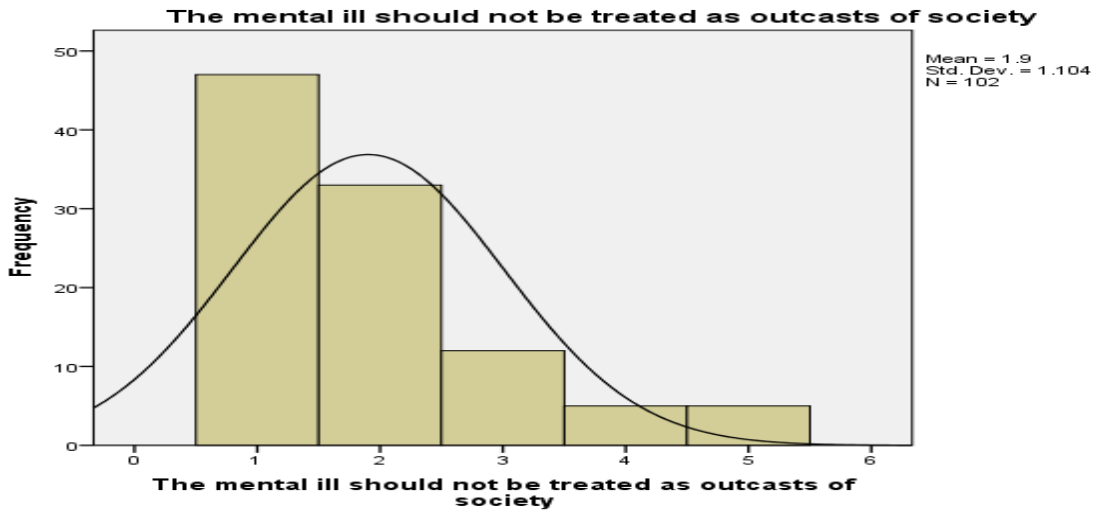


Histogram S:

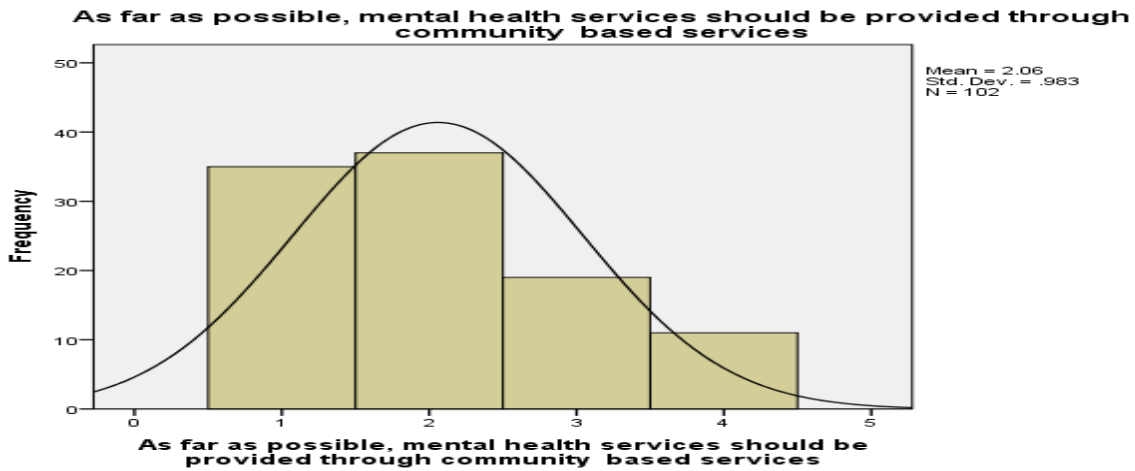
The best therapy for many mental patients is to be part of a normal community



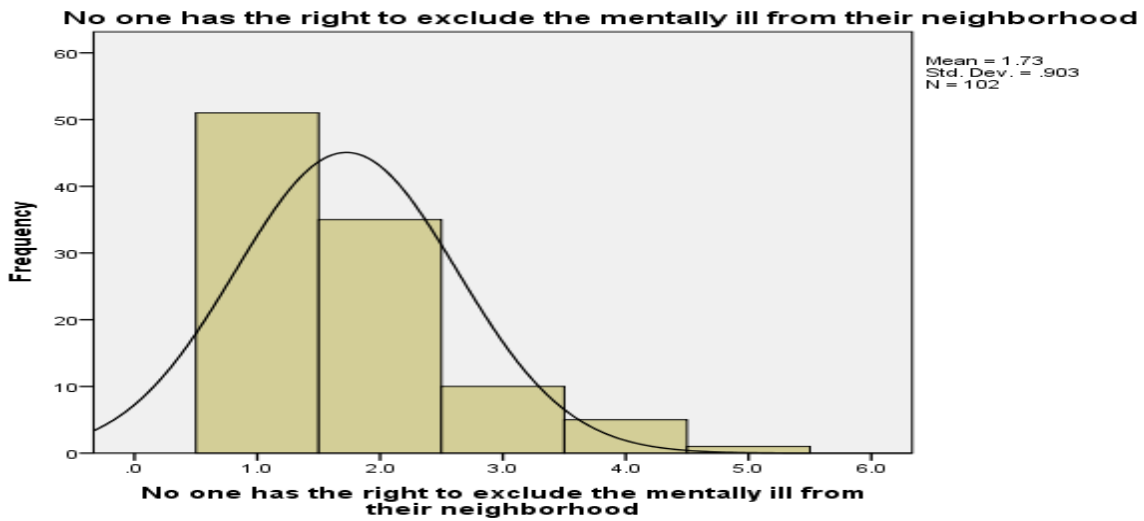
Histogram T:



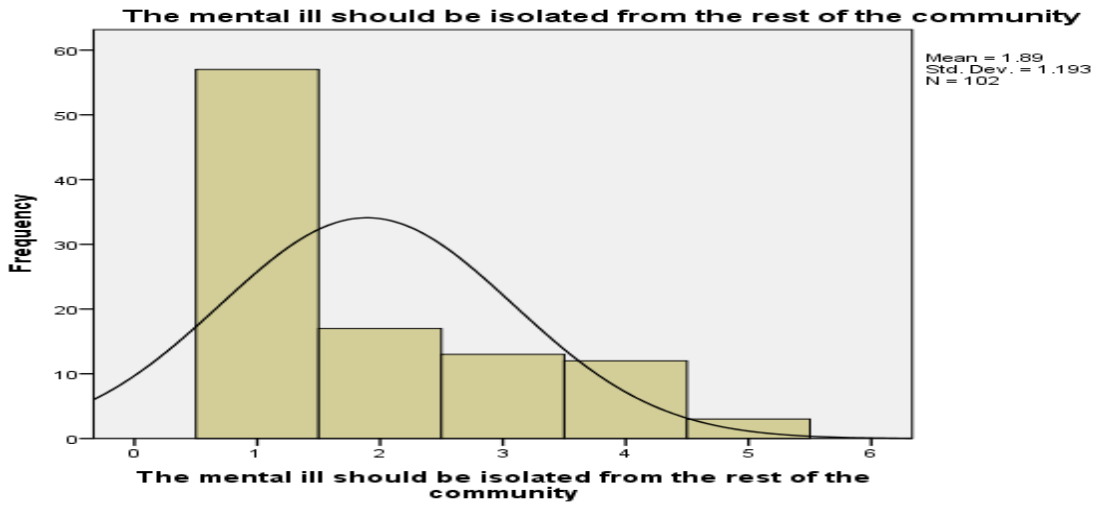
Histogram U:



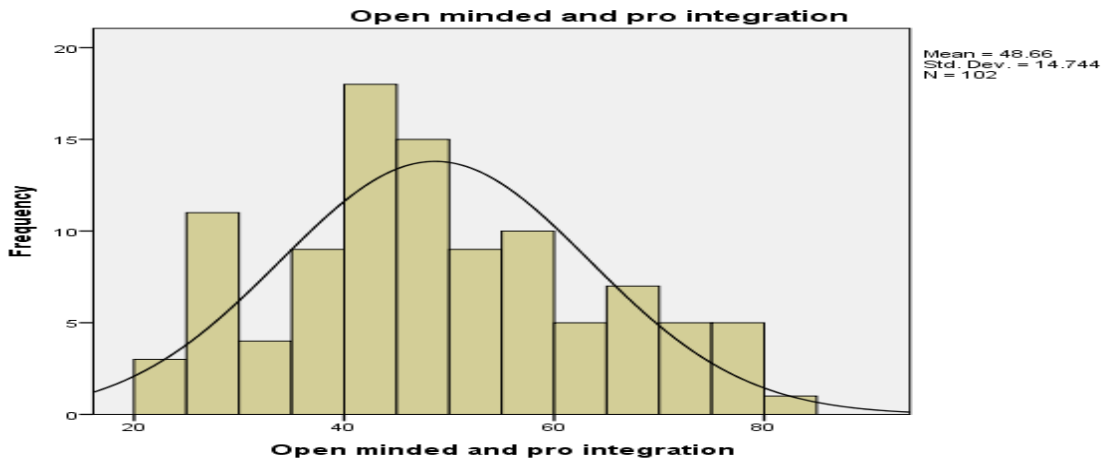
Histogram V:



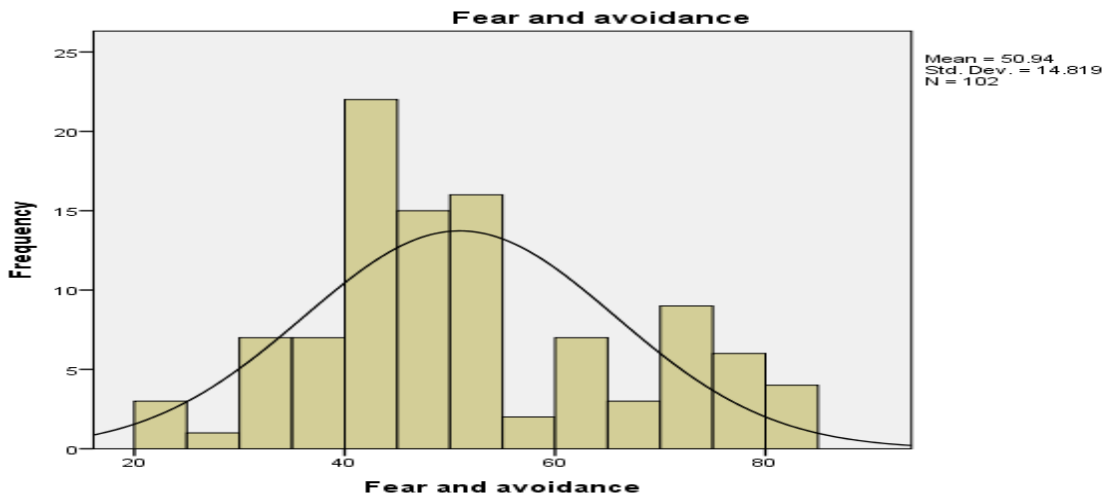
Histogram W:



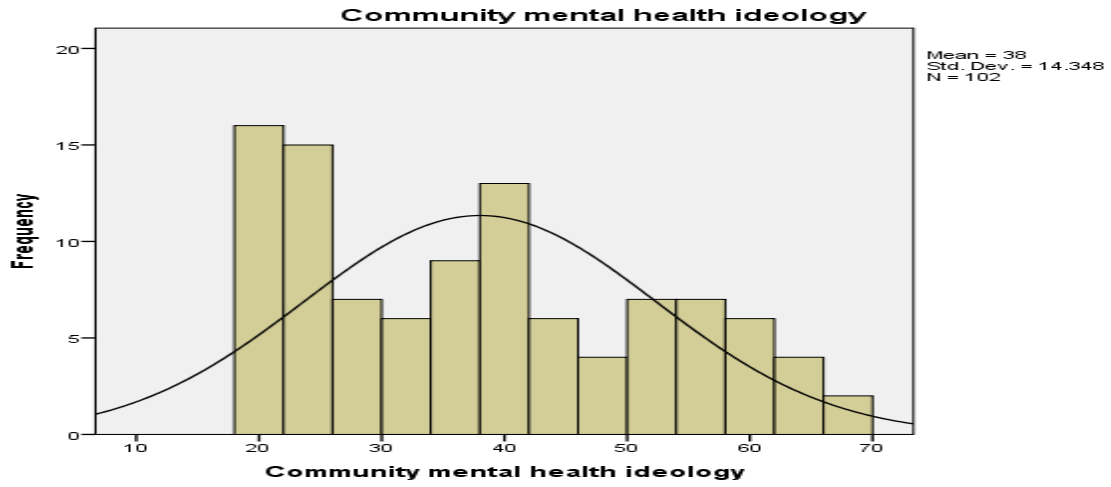
Histogram X:



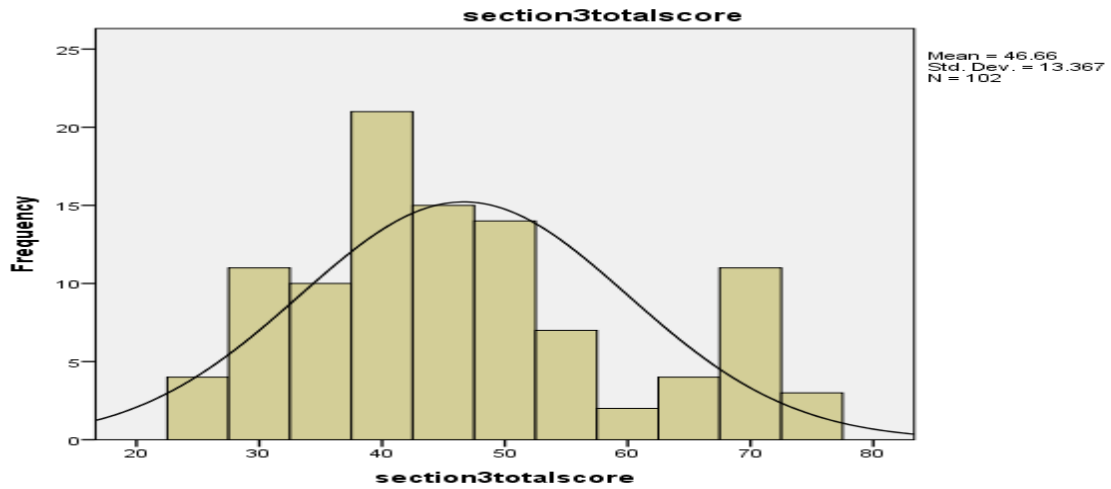
Histogram Y:



Histogram Z:



Histogram AA:



ANNEXURE 11: Tables

Table A: Age associations

Items	Age group												P value
	21-30 yrs			31-40 yrs			41-50yrs			50 +			
	Percentile 25	Percentile 50/ Median	Percentile 75	Percentile 25	Percentile 50/ Median	Percentile 75	Percentile 25	Percentile 50/ Median	Percentile 75	Percentile 25	Percentile 50/ Median	Percentile 75	
1. Residents should accept allocation of mental health facilities in their neighborhood to serve the needs of the local community	1	2	3	1	2.	2	1	1	2	1	1.5	2	.023
2. Most persons who were once patients in a mental hospital can be trusted as babysitters	2	3	4	1	2	3	1	2	2.5	1	2.5	4	.137
3. Locating mental health services in residential neighborhoods does not endanger local residents	2	3	4	2	2	3	1	2	2.5	1	1.5	2	.045
4. Mental health facilities should be kept out of residential neighborhoods	2	3	4	1	2	4	1	1.5	2	1	1.5	2	.004
5. Having mental patients living within residential neighborhoods might be a good therapy, but the risk to the residents are too great	3	3	4	3	3	4	3	3.5	4	3	4	5	.238
6. Local residents have good reason to resist the location of mental health services in their neighbourhood	2	3	4	2	3	4	1	2	2.5	1	3	4	.208
7. Mental disorder is an illness like any other	1	2	3.5	1	2	2	1	1	2	1	2	2	.073
8. We need to adopt a far more	1	2	3	1	2	2	1	1	2	1	1.5	2	.155

tolerant attitude towards the mentally ill in our society													
9. The mentally ill are far less of a danger than most people suppose	2	2	4	1	2	3	1	2	2	1	1.5	2	.025
10. It is better to avoid any one who has mental problems	1	2	3	1	2	2	1	2	2	1	2	2	.157
11. I would not want to live next door to someone who has been mentally ill	1.5	3	4	2	2	3	1	1.5	2.5	1	2	2	.085
12. It is frightening to think of people with mental problems living in residential neighbourhoods	2	4	5	2	3	4	2	2	4.5	2	4	4	.185
13. The best way to handle the mentally ill is to keep them behind locked door	1	2	3.5	1	2	3	1	2	2	1	2	2	.407
14. Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services	2	2	3	2	2	3	1	2	2.5	2	2	2	.373
15. Less emphasis should be placed on protecting the public from the mentally ill	2	3	3	2	3	4	2	2	3	2	3.5	4	.260
16. The best therapy for many mental patients is to be part of a normal community	1	2	3	1	2	2	1	2	2	1	2	2	.698
17. The mental ill should not be treated as outcasts of society	1	2	2.5	1	2	2	1	1	2	1	2	2	.808
18 As far as possible, mental health services should be provided through community based services	1	2	3	1	2	3	1	2	2	1	1.5	2	.239
19. No one has the right to exclude the mentally ill from their neighbourhood	1	2	2	1	2	2	1	1	1.5	1	1.5	3	.558

20. The mental ill should be isolated from the rest of the community	1	2	3.5	1	1	2	1	1	1	1	2	4	.014
Open minded and pro integration	42	53	69	36	47	56	29	43	47	29	42	51	.014
Fear and avoidance	40	53	73	43	47	53	38.5	41.5	47	33	52	63	.079
Community mental health ideology	24	36	56	24	40	44	24	26	38	32	40	44	.370
Total score	38.5	44	67.5	39	45	51	31	40	43	28	48.5	53	.060

Table B: Experience associations

Items	Experience in years												
	1-10 years			11-20 years			21-30years			30 +			P value
	Percentile 25	Percentile 50/ Median	Percentile 75	Percentile 25	Percentile 50/ Median	Percentile 75	Percentile 25	Percentile 50/ Median	Percentile 75	Percentile 25	Percentile 50/ Median	Percentile 75	
1. Residents should accept allocation of mental health facilities in their neighborhood to serve the needs of the local community	1	2	3	1	1	2	1	2	2	1	1	2	.007
2. Most persons who were once patients in a mental hospital can be trusted as babysitters	2	2	4	1	2	3	1	2	2	1	1.5	3	.007
3. Locating mental health services in residential neighborhoods does not endanger local residents	2	2	4	1	2	3	1.5	2	2	1	1	2	.020
4. Mental health facilities should be kept out of residential neighborhoods	2	3	4	1	2	4	1	2	2	1	1.5	4	.031
5. Having mental patients living within residential neighborhoods might be a good therapy, but the risk to the residents are too great	3	3	4	3	3	4	3	3.5	4	3	4	5	.083
6. Local residents have good reason to resist the location of mental health services in their neighborhood	2	3	4	1	3	4	1	2	2	1	1.5	2	.023
7. Mental disorder is an illness like any other	1	2	3.5	1	2	2	1	2	2	1	1	1	.057
8. We need to adopt a far more tolerant attitude towards the mentally	1	2	3	1	1	2	1	1	2	1	1	1	.010

ill in our society													
9. The mentally ill are far less of a danger than most people suppose	2	2	4	1	2	2	1	2	2	1	1	1	.002
10. It is better to avoid any one who has mental problems	2	2	3	1	2	2.5	1	1.5	2	1	1.5	2	.019
11. I would not want to live next door to someone who has been mentally ill	1.5	3	4	2	2	3	1	1.5	2.5	1	2	2	.327
12. It is frightening to think of people with mental problems living in residential neighbourhoods	2	4	5	2	3	4	2	2	4.5	2	4	4	.252
13. The best way to handle the mentally ill is to keep them behind locked door	1	2	3.5	1	2	3	1	2	2	1	2	2	.302
14. Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services	2	2	3	2	2	3	1	2	2.5	2	2	2	.145
15. Less emphasis should be placed on protecting the public from the mentally ill	2	3	3	2	3	4	2	2	3	2	3.5	4	.102
16. The best therapy for many mental patients is to be part of a normal community	1	2	3	1	2	2	1	2	2	1	2	2	.113
17. The mental ill should not be treated as outcasts of society	1	2	2.5	1	2	2	1	1	2	1	2	2	.389
18. As far as possible, mental health services should be provided through community based services	1	2	3	1	2	3	1	2	2	1	1.5	2	.103
19. No one has the right to exclude the mentally ill from their neighbourhood	1	2	2	1	2	2	1	1	1.5	1	1.5	3	.161

20. The mental ill should be isolated from the rest of the community	1	2	3	1	1	2	1	1	2	1	1	2	.010
Open minded and pro integration	42	53	64	30	44	52	32.5	41	47	27	34.5	44	.001
Fear and avoidance	40	53	73	43	47	53	38.5	41.5	47	33	52	63	.070
Community mental health ideology	24	36	56	24	40	44	24	26	38	32	40	44	.099
Total score	40	46	60	33.5	45	50	33	40.5	43	28	34	50	.007

