FACTORS ASSOCIATED WITH STRESS AMONG MENTAL HEALTH NURSES IN LUSAKA AND NDOLA, ZAMBIA

by

Beatrice Chisashi Mwansa

A Dissertation submitted in partial fulfillment of the requirements for the award of the degree of Master of Science in Nursing

University of Zambia

Lusaka

September 2017

Notice of Copyright

DECLARATION

I, **Beatrice Chisashi Mwansa**, hereby declare that this dissertation represents my own work and has not been presented either wholly or in part for a degree at the University of Zambia or any other University. I further declare that all the sources I have cited have been indicated and acknowledged using complete references.

Signature (Candidate)……..…..…….. **Date**……

Signature (Supervisor)……..…**Date**…….

CERTIFICATE OF APPROVAL

This dissertation of BEATRICE CHISASHI MWANSA on FACTORS ASSOCIATED WITH STRESS AMONG MENTAL HEALTH NURSES IN LUSAKA AND NDOLA, ZAMBIA has been approved in partial fulfillment of the requirements for the award of the Degree of Master of Science in Nursing by the University of Zambia.

Examiner I

Signature…..……Date……..

Examiner II

Signature……..Date……...……

Examiner III…….Date……

ABSTRACT

Stress is a common phenomenon affecting all individuals worldwide. It is part of life because individuals are bound by stressors from the moment they wake up in the morning until they drift into sleep at day's end. Normally human beings have different ways of dealing with stress, such as problem solving, time management and seeking social support. However when it is not well managed, stress can cause emotional and physical illnesses such as coronary heart disease, cancer, lung problems and diabetes, among others. Mental health nurses seem not to have been spared from stress. Awareness of stressors in mental health nursing may facilitate identification of strategies to improve working conditions for nurses with resulting benefits for the quality of nursing care. The aim of the research was to explore factors that contribute to stress among mental health nurses in Lusaka and Ndola districts.

The study employed a cross - sectional study design that sort to establish factors that contributed to stress among mental health nurses. It was conducted at Chainama Hills Hospital, selected health centres in Lusaka, and Ndola Central Hospital Psychiatric unit. Convenience sampling was used to select participants. A total of 96 nurses from the mentioned health facilities were interviewed. Pretested and structured interview schedule was used to collect data. Ethical clearance was obtained from University of Zambia Biomedical Research Ethics Committee (UNZABREC). Consent from participants was obtained before each interview. The data were analyzed using the Statistical Package for Social Sciences (SPSS) version 22. Fisher's exact test was used to establish the relationship between the dependent and independent variables. The findings revealed that mental health nurses in Lusaka and Ndola are moderately stressed. The findings also reveal that there is no significant relationship between stress and dealing with unpredictable patients among mental health nurses (P=0.113). Similarly there is no significant relationship between stress and shortage of nurses (P=0.613). However there is a significant relationship between stress and Conflict (P=0.002), between stress and lack of social support (P=0.002), and between stress and stigma (P=0.001). Overall mental health nurses in Lusaka and Ndola are moderately stressed and adjustments in organizational management could have a positive effect in sustaining a safe and effective patient care environment.

DEDICATION

To my parents **Mr Abel Chisashi** and **Mrs Alice Chisashi** who walked with me through my early years sharing their wisdom and love hence my source of inspiration, l will forever be grateful. I also dedicate this project to my lovely children **Mubanga Mubanga**, **Chishimba Chisashi Mubanga** and **Changala Chiluba Mubanga** for their love and continued support. Above all to God Jehova for his love everlasting and his grace for allowing me to complete this master's degree in nursing.

ACKNOWLEDGEMENTS

It has been a long journey but the Lord has been good throughout this research work. I give thanks to Him who is my Master and Lord indeed. Thank you Jehovah God for giving me strength and guidance throughout the period of study. My heartfelt gratitude goes to my research Supervisor Dr L. Mwape for her guidance. She took personal interest in enriching my understanding and knowledge. My thanks also go to Ms Wahila, my Co. Supervisor who has been very supportive especially with my presentations at Departmental level as well as post graduate forum.

A special gratitude goes to Mr Y. Banda and Dr. Aka for helping me understand analysis of research better.

I acknowledge the entire faculty in the Department of Nursing Sciences as well as my colleagues for their input.

My gratitude goes to my family as well for giving me all the moral and continued support when I needed it most.

Special thanks also go to my research assistants, and all mental health nurses who consented to participate in this research project.

My sincere appreciation to the Ministry of Health and Lusaka District Health Management Team for giving me permission to conduct my academic research at selected health centres in Lusaka.

Similarly l give thanks to the Senior Medical Superintendent of Ndola Central Hospital for allowing me to interview mental health nurses at the hospital.

I wish to appreciate Chainama Hospital College for according me the opportunity to go for this important educative training. Furthermore it is my privilege and honor to thank the Government of the Republic of Zambia for the paid study leave and sponsorship through the Ministry of Health. The sponsorship enabled me to study for the Master's Degree in Nursing at University of Zambia.

TABLE OF CONTENT

Page

CHAPTER ONE: BACKGROUND INFORMATION

CHAPTER TWO: LITERATURE REVIEW

CHAPTER THREE: METHODOLOGY AND METHODS

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION OF FINDINGS

CHAPTER FIVE: DISCUSSION

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ACRONYMS

ANA	American Nurses Association
APA	American Psychological Association
BLS	Bureau of Labour Statistics
GNC	General Nursing Council
HIV/AIDS	Human immune virus/ Acquired Immunodeficiency Syndrome
MHCH	Mental Health Council of Australia
MHF	Mental Health Foundation
MOH	Ministry of Health
UNZABREC	University of Zambia Biometric Research Ethics Committee
US	United States
UK	United Kingdom
UN	United Nations
WHO	World Health Organization

CHAPTER ONE

BACKGROUND INFORMATION

1.1 Introduction

Stress is discomfort, pain or troubled feeling arising from emotional, social or physical sources and resulting in the need to relax, be treated or otherwise seek relief (Hoff, 2001). Stress may also be defined as pressure or worry caused by problems in one's life that can contribute to development of long term sickness and burn out (Brooker and Waugh, 2007). On the other hand Teresa and Bhat (2013) define stress as a relationship between the person and environment that is appraised by the person as taxing or exceeding his resources and endangering his well-being. It is hard to live with stress but it is almost impossible to live without it. Individuals are bound by stressors from the moment they wake up in the morning until they drift into sleep at day's end. Mental health nurses are not an exception to stress and are therefore, vulnerable especially considering the type of work they are exposed to (Donatelle and Davis, 2000).

1.2 Background Information

The Health and Safety Executive (2002) estimated that around 500 000 people in the United Kingdom (U.K) were experiencing work-related stress at a level that was making them ill. In addition they also identified that approximately five million workers claimed to be stressed or highly stressed in their work place. According to Aluwole and Awaebe (2002), approximately one third of all Americans considered job related problems as their greatest source of stress and the United Nations (UN) (2002) has realized the magnitude of stress and labeled job related stress as 'the 20^{th} Century disease'. For World Health Organization (WHO), stress is a worldwide epidermic because it has recently been observed to be associated with 90 percent of visits to physicians (Akinboye et al., 2002). Occupational stress has also been defined as a "global epidemic" by the United Nations' worldwide Labor Organization (Aluwole and Awaebe, 2002). For mental health nurses, taking care of people with psychiatric problems brings about strains and emotional feelings that may lead to stress. According to the Mental Health Foundation report (MHF) (2014) every person may have felt stressed or anxious at some point in their life and that around 12 million adults in the UK see their General Practitioner (GP) with mental health problems each year.

Most of them present with anxiety and depression which is stress-related. In addition the report has shown that 13.3 million working days are lost per year due to stress, depression and anxiety. Hengst (2014) points out that stress in the workplace can make people dread walking into the office every day, and then make them worry about their jobs at night. She also acknowledges that when staff members are unhappy and stressed they are less efficient, less effective and more likely to misuse work hours or quit. While the physical effects of this epidemic are often emphasized, the economic consequences are also alarming. Workplace stress costs United States employers an estimated $200 billion per year in absenteeism, lower productivity, staff turnover, workers' compensation, medical insurance and other stress-related expenses (Aluwole and Awaebe, 2000).

Robinson et al., (2014) reports in Canada that vicarious trauma and burnout are serious manifestations of workplace stress. Both can have substantial consequences for mental health nurses, health services, and consumers of health services. Aiken et al., (2011) in their study found that 41.5 percent nurses were dissatisfied with their jobs and that 1 in 5 nurses surveyed intended to leave his or her job as a result of dissatisfaction, burnout, and stress. Workplace stress has long been recognized as a challenge for the mental health nursing profession and has been identified as a problem that should not be ignored. This is because mental health nursing is generally perceived as a demanding profession that could lead to stress and may contribute to the lack of registered nurses choosing to work in this specialty area (Brennan et al., 2006).

Stress among mental health nurses may be related to many factors such as dealing with disturbed and unpredictable patients or having to deal with colleagues who do not do their share of the work load (White, 2006). Generally acute inpatient mental health facilities are busy, understaffed and under- resourced (Happell, 2008). They are recognized to be fraught with pressure resulting from dealing with aggressive and un- predictable environments (Leifer, 2004). Chainama Hills is an example of a mental health facility that is busy and understaffed. It is the only referral hospital for patients with mental health problems in Zambia. Jose and Bhat (2013) writing from India state that ideal nurse-patient ratio should be 1: 4 in a psychiatric hospital according to the world Health Organization (WHO, 2006). Happel (2004) identified the consequences of stress on mental health nurses' which include cognitive, physical, emotional, and behavioral symptoms.

Cognitive symptoms include inability to concentrate, trouble in thinking clearly and fearful anticipation among others. On the other hand, physical symptoms may include headaches, insomnia and frequent colds. Other symptoms may be emotional and include moodiness, agitation and irritability while behavioral symptoms might include sleeping disturbances and eating pattern disturbance among others. Stress in mental health nurses can lead to feelings of depression, helplessness and hopelessness (Jenkins and Elliott, 2004). The link between work stress and somatic complaints, coronary heart disease, alcoholism and attempted suicide has also been well documented (Tully, 2003). Gupta (2010) asserts that in a man who remains constantly stressed, the heart has to constantly overwork in terms of increased heart beats and increased blood pressure, and can aid atherosclerosis leading to high blood pressure. Lack of mental alertness due to stress may also contribute to a higher likelihood of medical errors. Jennings (2013) reports that stress and burnout remain significant concerns in mental health nursing as both individuals and organizations are affected. Work stress may contribute to absenteeism and turnover, both of which affect the quality of care provided to patients. There use of coping adaptive strategies in this case might mitigate the consequences of stress mentioned above.

American Psychological Association (APA), 2015) asserts that extreme amount of stress can take a severe emotional toll on mental health nurses. The association explains that while people can overcome minor episodes of stress by tapping into their body's natural defenses to adapt to changing situations, excessive chronic stress, which is constant and persists over an extended period of time can be psychologically and physically debilitating. It is further explained that untreated chronic stress can result in serious health conditions like anxiety and depression and people who suffer from depression and anxiety are at twice the risk for heart disease than people without these conditions (APA, 2015). The increasing number of mental health clients compared to the decreasing number of beds as well as qualified staff in psychiatric hospitals, means that mental health nurses are spending less time per patient and potentially providing a reduced level of care (Mental Health Council of Australia (MHCH), 2005). On the other hand, Magarey (2013) found that nearly half of the nurses working in hospital psychiatric wards in Australia are themselves suffering from mental illnesses, such as post-traumatic stress disorder, depression and anxiety, because of the nature of work they are involved in. In addition three out of every four nurses describe their work as stressful (Maxon, 2015).

From a local perspective, Kane (2009) reveals that causes of stress include jobs not finishing in time because of shortage of staff and conflicts with patients relatives, while Matsiko and Kiwanuka (2003) assert that nurses' stress is a problem that has resulted from shortage of staff. Stress causes mental health disorders for psychiatric nurses. According to Yada (2015) some common stressors include poor working relationships between nurses and doctors and other health care professionals, high work load, understaffing and lack of social support or positive feedback from senior nursing staff. Zaghloul (2008) writing from Egypt has stated that job stress is the harmful emotional and physical reactions resulting from the interactions between the worker and her/his work environment where the demands of the job exceed the worker's capabilities and resources. In addition prolonged stress is a precursor of burnout which is considered a major problem for many professions like nursing.

According to Ministry of Health (MOH), it is likely that stress is a problem in African countries including Zambia because the past three decades have convincingly demonstrated that the incidence and prevalence of psychiatric morbidity is higher than in the developed world. This has resulted from the prevailing infectious diseases, relative malnutrition and pregnancy morbidity compounded with socio economic predicaments (MOH, 2004). There is more work for mental health nurses who already have a problem of shortage of staff. This can lead to a very stressful environment. Stress is cumulative in the sense that initially an individual experiences mild forms of stress such as a headache, nervous stomach, or the occasional sleepless nights. These symptoms are the body's way of telling an individual to reduce stress. If one does not heed to the message, then stress builds up in the body (Elaine, 2014). This can cause more serious problems such as hypertension, a weakened immune system, and an increased risk of cardiovascular disease (Gupta, 2010). The relationship of the nurse and patient should be based on positive regard, consultative role and empathy, which could be disturbed when under stress. A show of negative attitude may lead to insults from relatives and ultimately may increase the stress. Stress not only adversely affects the health, safety, and well-being of nurses at the individual level; it also negatively affects healthcare organizations. It has been linked to a number of poor outcomes, such as lower morale, reduced job performance, and absenteeism. It also seems to fuel job dissatisfaction, a precursor to staff turnover.

Reduced psychomotor activity due to burnout also can contribute to a higher likelihood of medical errors. This is why mental health nurses should have coping strategies to deal with stressors in their working environment. A coping strategy is an innate or acquired way of responding to a changing environment or specific problems or situations (Kozier et al., 2012). Coping can be adoptive or maladaptive. Kozier et al., (2012) describes coping as dealing with problems and situations or contending with them successfully. Strategies for coping may also be viewed as long term or short term. Long term coping can be constructive, for example talking to others about a problem or trying to find more information about the problem. Time management is also a way of positive coping. Jose and Bhat (2013) report that mental health nurses can make efforts to create positive meaning by focusing on personal growth and make efforts to seek informational support, tangible support and emotional support.

Psychological causes of stress revolve around an individual's mental and psychosocial states and how he/she reacts to various events and problems happening around (how they look at the world and life in general) for example divorce or unemployment. It has also been stated that mental attitude is everything in life. Jose and Bhat (2013) emphasized the importance of recognizing the stressor and then keep one away from such environmental and physical factors as much as possible. Additionally an individual may build up his/her physical health and stamina to a degree that one is not adversely affected by such negative environmental and physical conditions (Gupta, 2010). Thus it is important to identify the stressors because only then would a person find ways of how to deal with them. Stress management interventions for mental health nurses are less likely to succeed if workplace conditions remain stressful (unchanged), and as such, successful interventions for managing stress must address organizations as well as individual nurses. Therefore exploring stressing factors for mental health nurses is a starting point before management can facilitate better ways of dealing with stressful issues (Dosani, 2003).

1.3 Statement of the problem

According to the Ministry of Health National Health Strategic Plan (2006), it was estimated that the health sector was operating at 50 percent of the recommended establishment as most of the nurses left the country due to poor conditions of service. Chainama Hospital has only 59 mental health nurses against 150 to 160 patients at times with an estimated nurse - patient ratio of 1:30 (Chainama Hills Hospital Report, 2012). This in turn may create a stressful environment for nurses. It had been observed that about five (5) nurses are "on and off sick" all the time, hence only a few are expected to take care of patients whose behavior is unpredictable. Psychological problems can manifest into physical problems. Nurses are not only affected at the individual level but at organization level as well, For example, at Chainama hospital nursing care plans are neglected and can lead to conflicts with physicians, ward managers which outmately will contribute to poor social support from supervisors.

Table 1 below shows the staffing levels including establishment for Mental Health Nurses at Chainama Hospital from the year 2014 to 2016.

Table 1: Number of Mental Health Nurses at Chainama Hospital: 2014-2016

Year	Mental Health Nurse	Establishment	Actual No. of Mental Health Nurses	Variance
2014	Enrolled Mental Nurses	41	18	23
	Registered Mental Nurses	81	39	42
2015	Enrolled Mental Nurses	41	18	23
	Registered Mental Nurses	81	39	42
2016	Enrolled Mental Nurses	41	20	21
	Registered Mental Nurses	81	41	40
Total		366	175	191

Source: Chainama Report, 2017

Table 1 above clearly shows poor staffing at Chainama Hospital. Despite the establishment for mental health nurses being 366, the actual number of these nurses employed at the institution is below the recommended establishment. This is despite the introduction of the direct Registered Mental Health Nursing programme in 2005 which was aimed at increasing the enrolment rates for these specialized nurses. Chainama Hospital has been graduating approximated 60 Mental Health Nurses each year since the commencement of the direct programme in 2005.

From the year 2014 to 2016, establishment for nurses trained in mental health nursing has remained static. For example between 2014 and 2016, the establishment has been 81 for registered nurses but the actual is 39 with a variance of 46. Similarly Ndola Central Hospital has staffing problems. There are about fourteen (14) Mental Health Nurses assigned to provide care to the mentally ill patients. The rest of the nurses assigned to operate in mental health care units so as to supplement on staffing only possess the basic nursing qualification. General Nurses have limited knowledge and skill to handle patients with mental health problems. The workload of Mental Health Nurses is therefore not likely to be reduced as they will be required to provide the specialized nursing care. The physical and mental health of mental health nurses can severely be affected by the burdens placed upon them including socially unaccepted behaviors by patients suffering from mental illness and also caring for many patients who have HIV which brings about physical as well as mental problems. Stress may not be easily understood when the one experiencing it does not communicate it to others. It was therefore found necessary to explore the level of stress among Mental Health Nurses and the associated factors that could be leading to the stress levels so as to establish a basis for developing coping strategies.

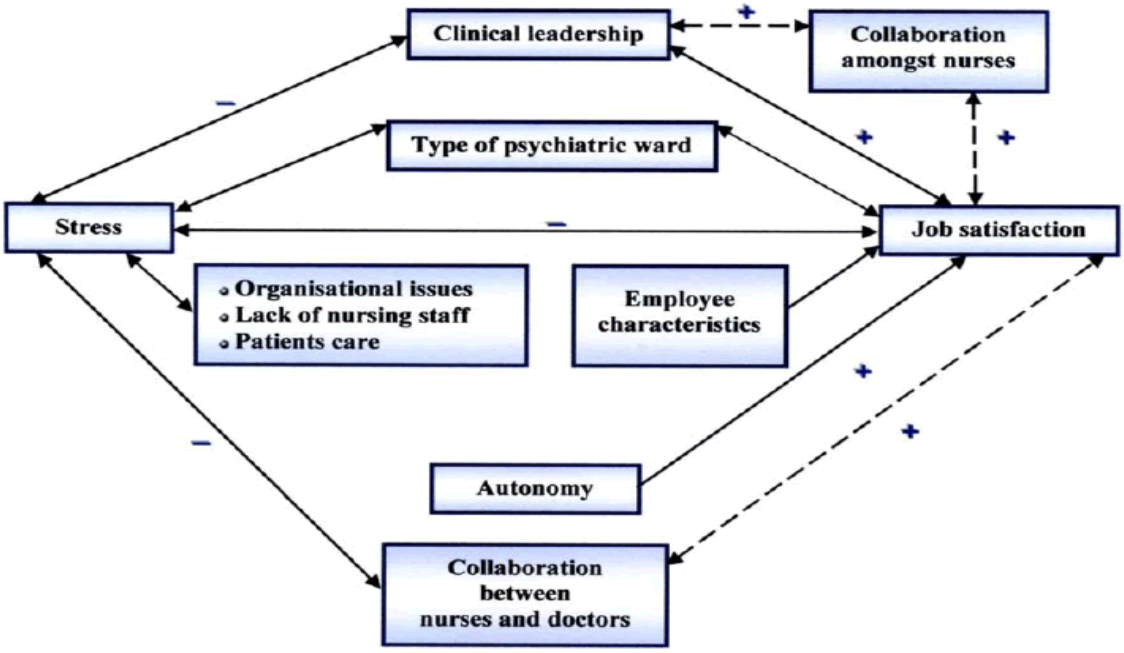
1.4 Theoretical framework

Figure 1: Occupation stress and job satisfaction model

This study employed a proposed model showing occupational stress and how it is negatively related to job satisfaction, the clinical leadership, the professional relationships amongst nurses and between nurses and doctors. According to this model, some of the proposed variables that can lead to stress are characteristics like patients who have unpredictable behavior, shortage of nursing, conflicts among mental health nurses and doctors as well as lack of social support from supervisors. It means job satisfaction is positively related to the quality of professional relationships amongst nurses, between nurses and doctors, as well as social support from supervisors. If there is no harmony between doctors and mental health nurses, not only are the nurses stressed but patients are equally affected. However according to this model, stress can also lead to poor staffing. When mental health nurses are not happy and feel stigmatised, they may become sick or may just decide to absent themselves from work making staffing even more poorer. When mental health nurses work without enough staffing, looking after patients who are violent and predictable becomes risky.

When staffing is good with good team work, the work environment influences people's ability to avoid risks and minimise disease and its consequences. Similarly when mental health nurses are stressed, they may not solve problems amicably. This will lead to conflicts in an organisation because of poor communication, eventually poor quality care is given to patients. Furthermore, when mental health nurses are stressed or anxious, they may not act assertively but aggressively that will stress people that are supervising them. The stressed manager will not give social support that mental health nurses need. Interactions between mental health nurses and colleagues should improve, similarly interactions between doctors and mental health nurses as well as interactions between management and mental health nurses should improve. The model in figure 1 depicts the expected relationships between variables that influence stress and job satisfaction in nurses working in psychiatric units. The expected directions between the variables are described either with the solid arrows which represent strong relationships between them as supported by literature, or with the dotted arrows indicating possible relationships.

Figure 1. **Proposed model of the variables related to stress and job satisfaction of mental health and assistant nurses.**



SOURCE: Konstantino and Ouzoune 2008

1.5 Study Justification

Konstantino and Ouzoune (2008) reveal that there is little attention that has been paid to nurses working in psychiatric units. Awareness of stressors among mental health nurses in Zambia may facilitate identification of strategies to improve working conditions for nurses with resulting benefits for the quality of nursing care. The APA (2015) asserts that the key to managing stress is recognizing and changing the behaviors that cause it. If nurses continue to work in an environment without problems being tackled, the outcome could be burnout. Not much literature has established factors associated with stress among mental health nurses in Zambia in general. Therefore, it is hoped that the findings of this study would be of use to health policy makers and other stakeholders for developing healthy public policies as regards to mental health nurses based on scientific grounds. The results of the study would also assist in the development of coping strategies for mental health nurses.

1.6 Research question: What factors contribute to stress among mental health nurses

1.7 Hypothesis: This study will address the following hypothesis

Null hypothesis: There is no association between stress and the following factors:

- Care of unpredictable behavior of patients
- Conflicts among professionals
- Shortage of nursing staff
- Social support factors
- Stigma

1.8 Objectives

1.8.1 General Objective

To assess the level of stress and factors associated with work related stress among Mental Health Nurses

1.8.2 Specific Objectives

- To determine the levels of stress among mental health nurses.

- To determine factors related to stress among mental health nurses

1.9 Variables

A variable is any characteristic that can be measured or categorized (Burns and Groove, 2009). There are two major types of variables in this study namely; Independent and Dependent variable.

1.9.1 Dependent variable

This is a variable that is used to describe or measure the problem (core problem) under study (Burns and Groove, 2009). In this study, the dependent variable is 'Stress among mental health nurses'.

1.9. 2 Independent variable

In this study, independent variables include: shortage of nurses, lack of social support from relatives and supervisors, unpredictable behavior of patients, stigma and conflicts among professionals.

Table 2: Variables, Indicators and cut off points

Variable name	Type of variable	Indicator	Cut off points	Question No.
Dependant variable Stress among mental health nurses				
Independent variable				
Care for patients who are Unpredictable	Interval	High stress	6 – 16 stress scores	1 – 4
		Low stress	0 – 5 stress scores	
Conflict	Interval	High stress	6 – 16 stress scores	5 – 8
		Low stress	0 – 5 stress scores	
Shortage of Nurses	Interval	High stress	6 – 16 stress scores	9 – 12
		Low stress	0 -5 stress scores	
Social support	Interval	High stress	6 – 16 stress scores	13 – 16
		Low stress	0- 5 stress scores	17 – 20
Stigma	Interval	High stress	6 – 16 stress scores	
		Low stress		

1.10 Conceptual definitions

1.10.1 Stress: Any factor, mental or physical, the pressure of which can adversely affect the functioning of the body (Weller, 2005).

1.10.2 Unpredictable patients: It is a disturbance in thought, mood and action that causes sudden distress to the individual and requires immediate management (Elakkuvana, 2014)

1.10.3 Conflict: Differing in opinions, miscommunications and misunderstandings between people working together (Cardilo, 2011).

1.10.4 Shortage of nursing staff: This is where few nurses are taking care of many patients. A ratio of 1: 4 is ideal in a psychiatric ward; above this is poor staffing (William, 2014)

1.10.5 Social support: The relationships and interactions that provide individuals with assistance or feelings of attachment (Berkman et al., 2007).

1.10.6 Stigma: Stigma refers to the sense of collective disapproval and group of negative perceptions attached to a particular people, trait, condition, or lifestyle. Stigmatization describes the process by which the characteristics of the group in question are identified and discriminated against (Semple et al., 2005).

1.10.7 Coping: Generally refers to adaptive or constructive response strategies that reduce stress levels (Teresa and Bhat, 2013).

1.11 Operational definitions - This was guided by the use of a modified standardized stress tool.

1.11.1 Stress: This was measured by categorizing stress into four levels mild, moderate, high and severe. There after stress was categorized only into two levels high and low**.**

1.11.2 Unpredictable behavior of patients – The variable had a total score of sixteen (16). This was measured by categorizing it into two levels, high level and low level. Low level covered zero to mild, and high level covered moderate to extreme level of stress.

1.11.3 Conflict – similarly this was measured by categorizing it into two levels, the variable had a total stress score of sixteen (16). Moderate to high stress scored 6-16 and the low stress score scoring 0- 5.

1.11.4 Shortage of Nurses – this had a total stress score of sixteen (16) which is high stress and low stress scored from 0-5 covering zero to mild stress scores..

1.11.5 Poor social support – relationships and interactions that provide individuals with assistance and was measured by categorizing it into low stress and high stress.

1.11.6 Stigma – This is when mental health nurses are looked upon as different from all health workers treated as low class or not important, and was equally measured by two classes, low and high stress

1.11.7 Coping – Methods that mental health nurse might use to cope with a work related stress.

CHAPTER TWO

LITERATURE REVIEW

2. 1 Introduction

This chapter presents literature that was reviewed for this study. The purposes for reviewing existing literature were to identify what is known and not known about the topic under study. In this study, literature review intended to determine what is known about the factors that may contribute to stress among mental health nurses. Saunders et al., (2000) asserts that knowledge does not exist in a vacuum, and an individual's work has only value in relation to other people. Sources of literature included text books, articles from peer reviewed journals and search engines such as Google scholar. The exhaustive sources served a good way of identifying what is known about stress and mental health nurses. The review of literature guided the author on gaps that still existed on this topic. The literature was reviewed and presented according to the study variables which were factors associated with stress among mental health nurses in Lusaka and Ndola.

2. 2 Stress

According to Mental Health Foundation (2014) some stress can be positive because it can make people more alert and thus perform better in different situations. Further the Foundation reports that stress is only health if it is short lived. Excessive or prolonged stress can lead to illness like physical and emotional exhaustion and that taken to extremes, stress can be a killer. In addition Brooker and Waugh (2007) in London explained that in someone with pre existing vulnerability, exposure to increased stress maybe the stimulus to trigger illness. It may then influence recovery and other health-related behaviors. Those with existing conditions may experience worsening of symptoms such as increased frequency of migraine attacks.

2. 3 Stress among mental health nurses

Mental health nursing has some features that might account for the high levels of reported stress. One important feature is that nursing is fundamentally an interpersonal activity - mental health nurses deal with a lot of people.

According to Dawood et al., (2017) mental health nurses are professionals who assist people regain a sense of coherence over what is occurring to them, be it a result of trauma or some other form of mental distress. Their unique contribution has been in the simple elegance of 'being there' to bear witness and mitigate the negative side effects of illness-alienation and a feeling of being out of touch with the self and social context. Many sources of stress in mental health nurses work have been identified such as heavy workload, organizational structure, and difficulties with patients, work conflict and inter professional conflict which lead to depression, helplessness and hopelessness (Brooker and Waugh, 2007). When implementing strategies to improve acute wards, it is important to look at wellbeing of staff who delivers the care to the vulnerable patients in this specific area of nursing.

2. 4 Unpredictable and Difficult Patients

Job stress and burnout in 78 psychiatric nurses working in eight acute admission wards in the UK found that violence, potential suicide and observation are the most frequent stressors in patient care. The intensity of stressful circumstances experienced by psychiatric nurses were due to lack of manpower to maintain observations at a safe level, psychiatric nurses lack of understanding and support from hospital management and the type of patient care the psychiatric nurses provide possibly would be the major cause of job stress. According to Duhart (2001), the U.S. Bureau of Justice Statistics, estimated that 1.7 million workers are injured each year due to assault at work. In the same vein the Bureau of Labour Statistics (BLS), 2006) reported that 60 percent of workplace assaults occurred in health care, and most of the assaults were committed by patients.

It is estimated that assault of mental health nurses accounted for 6.1 per 10,000 compared to those of general health workers, which accounted for 2.1 per 10,000, keeping in mind that not all incidents are reported. Gates et al., (2006) found that 67 percent of nurses were assaulted while 51 percent of physicians were assaulted by patients at least once in six months. On the other hand the American Nurses Association (ANA) (2012) found that 17 percent of surveyed nurses reported that they had been physically assaulted at work in the past year and 56.9 percent had been threatened or verbally abused. In addition to physical injury, disability and chronic pain, employees who experience violence suffers psychological problems such as loss of sleep, nightmares, and flashbacks.

Magarey (2013) found that 43 percent of nurses working on psychiatric wards at three general hospitals in Melbourne (Australia) met criteria indicative of "non-psychotic mental illness", including 18 percent with likely post-traumatic stress disorder as a result of stress. Gerberich et al., (2004) added that more consequences may occur such as work place violence, increased turnover, absenteeism and increased job dissatisfaction among others because of stress. Gerberich et al., (2004) also added that if caring for people who are not mentally ill can be difficult, caring for aggressive or violent patients can be more difficult and may contribute to stress among mental health nurses. Bimenyimana et al., (2011) stated that the level of violence and aggression to which mental health nurses are exposed was overwhelming, and the consequences were alarming because mental health nurses got emotionally, psychologically and physically affected by violence and responded with emotions such as fear, frustration and anger. Likewise, Jenkins and Elliot (2004) in England highlighted that dealing with physically threatening, suicidal, difficult and demanding patients was the most stressful aspect of mental health nursing. This is why mental health nursing is a specialty, needs nurses who are understanding and have empathy.

2. 5 Conflicts

According to Cardilo (2011), wherever there are people, there will always be conflicts. Opinions vary, miscommunications and misunderstandings occur, people have different values and priorities. Sometimes the problem might not be the conflict itself, but rather how people deal with it. Cardilo (2011) further said that if conflict is ignored or avoided, it can lead to increased stress and unresolved feelings of anger, hostility and resentment. When an individual learns to manage conflict effectively, they become happy and healthier, physically and emotionally. Roberts (2012) in England highlighted that stress in nursing is attributed largely to interpersonal relationships, conflicts and demands from patients and families. In another related study, Konstantinos and Ouzoune (2008) in India identified a number of stressors for mental health nurses working in hospitals which included poor professional relationships such as lack of collaboration between doctors and mental health nurses, and lack of doctors' respect for nurses' opinions, and their participation in decision making about patients care.

Similarly a comparative study of psychiatric nurses and nurses working in operation theatres, intensive care and general medicine, among 269 female nurses found that psychiatric nurses experienced intense interpersonal involvement and stated that frequent conflicts took place in their working environment with patients, families, physicians and colleagues (Dawood et al., 2017). It is important that mental health nurses are given a chance to express themselves in an environment that is conducive and treated as colleagues not expected to receive instructions only.

2. 6 Shortage of nurses

Shortage of nurses has a significant negative impact on the health care system. Studies from the University of Pennsylvania, School of Nursing (2004) in America demonstrated that shortage threatens the quality of care an institution can deliver, as the people giving care are stressed. For example a study conducted by Buerhaus et al., (2005) highlighted that 75 percent of nurses believed that the nursing shortage presented a major problem for the quality of their work life, the quality of patient care, and the amount of time nurses spent with patients. Shortage is seen as a catalyst for increasing stress on nurses lowering patient care quality and causing nurses to leave the profession. Furthermore Aiken (2002) stated that nurses' reported greater job dissatisfaction and emotional exhaustion when they were responsible for more patients than they can safely care for.

According to Ball's (2004) study, hospitals and nursing facilities often encouraged mental health nurses to work overtime because of shortage of nurses, and shifted nurses from one unit to another. All of this compromised the quality of care and significantly decreased a nurse's satisfaction, and contributed to stress among mental health nurses. In addition Ball (2004) reported that some hospitals had increased the pressure on nurses to work double shifts, making it mandatory in some cases. The practice had been condemned by nurse leaders and studies have shown that overworking stresses mental health nurses. Ballard (2006) in England acknowledged that shortage of nurses was a stressor but there are additional stressors that had been identified such as increased paperwork because mental health nurses are expected to document all interactions and procedures conducted on a daily basis. There are so many stressors in mental health nursing and that is why it is important to investigate exactly what is stressing mental health nurses.

2. 7 Social Support

The highest stressors were working with poorly motivated staff and having management who fails to notify staff about changes in their organization (Dawood et al., 2017). Social support assumes many forms and can encompass a variety of relationships and behavior. It can be best understood as the relationships and interactions that provide individuals with assistance or feelings of attachment (Berkman et al., 2007). Social support has been described as the assistance and protection given to others; especially to individuals. The defining attributes of social support are emotional, instrumental, informational, and appraisal (Jenkins and Elliot, 2004). Social network, social embededness, and social climate were identified as antecedents of social support. Assistance may be tangible as in financial aid, or subtle as in emotional help. Protection may present as shielding people from the adverse effects of life stress but also it was hypothesized to be reciprocal. It is a resource given with the expectation of reciprocity (Berkman et al., 2000). This may mean that a mental health nurse expects to get support from management but similarly management may expect support from a mental health nurse in terms of professionalism in the way they interact with clients. The support involves the quality of interpersonal ties between individuals. The strength and the extent of these personal ties determine the individual's ability to cope with adversity. Chieh and Yuen (2012) in Hong kong revealed that a high demand in life with low levels of social support was associated with the development of stress related symptoms.

However Elliot and Jenkins (2004) in England discovered that there is a significant difference in outcome depending on who is delivering the support. Support from supervisors is only half as effective in reducing emotional support as that from co-workers, with support from friends/relatives and spouse or partner. Social support consequences are positive health states like personal competence, decreased anxiety, and effective coping behaviors (Ozba et al., 2007). Studies have recognized a positive relationship between social support and health. Studies reflect an interest in social support across all age groups and include both disease related and health related topics. A study by Clark (2004) revealed that social support would benefit a person's general health and immune system, regardless of whether or not they have a lot of stress. For example, the cardiovascular system would function much better in those adults who have better social support.

The social support, had significantly demonstrated a relationship with lowering of blood pressure. In addition Clark (2004) asserted that a high level of social support from a supervisor may help prevent depression. However this is not a guarantee, especially if high demands continue to overwhelm the workers. According to a study done by Chen et al., (2014), adolescents living in the very economically distressed areas registered high levels of depression and post-traumatic stress. With improved social supports in families and neighborhoods, stress was reduced and fostered hope. In particular, strengthening supports from female caretakers to their adolescents at home improved the outlooks of their daughters (Chen et al., 2014). On the other hand Ozba et al (2007) emphasized the importance of social support in regard to stress among nurses. He said that to accomplish a satisfactory stress level in a high demand environment would require plenty of support and reinforcement from supervisors. It is well known that when an individual is aware that he/she has support around, it can help ward off stress. It is helpful if there is someone around from whom an individual can seek support when times are hard. An individual might not even 'use' the person in any way but as long as she/he knows someone is there for them, this support will protect them (Ozba et al., 2007). Additionally Stuart and Laraia (2005) acknowledged the importance of social support. According to Stuart and Laraia (2005) social support from families, friends, and care givers was an important resource for adaptive psycho physiological responses. It may lower the likelihood of developing maladaptive responses, speed the recovery from illness and reduce the distress and suffering that accompany illness. Thus lack of social support can contribute to stress, but there are other stressors that may also be associated with stress among mental health nurses like stigma.

2. 8 Stigma

Stigma is a Greek word meaning ‘Mark’ and originally referred to a sign branded onto criminals or traitors in order to publicly identify them (Semple et al., 2006). Similarly, Weller (2009) defined stigma as any physical or social quality of a person that is perceived by others as a negative attribute. Mental health nurses are particularly vulnerable to stress arising from stigma. The ‘marking’ of mental health nurses isolates, frustrates and stresses them (Goalder, 2006). According to Mental Health Council of Australia (MHCA), 2005) young girls look at mental health nursing negatively because they think it is different from what they think is normal nursing, and consequently keep away from it.

The shunning of this program continues to add to the shortage of nurses in this area, which may contribute to stress. Additionally, MHCA (2005) pointed out that low recruitment levels were influenced not only by the stigma associated with mental illness and correspondingly the profession of mental health nursing, but also by the marginalization of the specialty within the medical profession. Furthermore MHCA (2005) states that stigma contributes not only to problems in recruitment but also to the complexity of working within the mental health sector, because it impacts greatly on the social engagement, health, wellbeing and recovery of clients with mental health problems and therefore might contribute to stress among mental health nurses. Similarly Ng et al., (2010) reported that stigma is a reality among mental health nurses. It is not by their association to those with mental illness but by association to society's view of mental illness in general. Mental health nurses are often viewed by the public as corrupt, evil and mentally abnormal.

Ng et al., (2010) also observed misconceptions of the profession among nursing peers, believing that it is a less desirable career choice compared with other sectors, and that it is not seen as a specialty with a complex knowledge and skill base. Stigma constitutes a threat to professionals who work in mental health care, through their association with mental illness, because it is looked at as a discrediting attribute (Ng et al., 2010) and ultimately contributes to stress. Likewise Ajala (2014) reported that the mental health nursing role was built upon official labels which are a prime trigger of stigma. Therefore, due to nurses' relation with psychiatric/medical care and their own stigma experiences due to their association with mental health problems, they can be considered as a stigmatized group, and can thus probably contribute to stress. Stressful work conditions, whether caused by individual or situational factors, could lead to health problems and risk of injury (Silva et al., 2008). Therefore the way you cope with stress is very important. The coping strategies can be health or unhealthy, helpful or unproductive.

2. 9 Coping

Coping is the person's cognitive and behavioral efforts to manage the internal and external demands in the person-environment transaction (Abdalrahan, 2013). Tysona et al., (2002) described three types of coping strategies among mental health nurses. The first one is the problem solving strategy, which included defining goals, planning and searching for alternative solutions.

The second strategy is the social strategy, which is the tendency to turn to others for advice, communication, and comfort. The last one is the avoidance strategy, which involves physical or psychological withdrawal through distraction or fantasy. In times of stress, an individual normally engages in certain coping strategies to handle the stressful situations and their associated emotions. Methods of coping among mental health nurses may help to increase an individual's ability to cope effectively and as a result, reduce experienced levels of stress and burnout (White, 2006). The emphasis here is that the way mental health nurses cope with job stress shapes their ability to cope. Mental health nurses utilizing effective coping methods experience less stress. The concern is not only for mental health nurses but also for organizations, since job stress leads to burnout, illness, absenteeism and poor morale of staff. The positive way of coping with stress would be problem solving, where strategies are taken into consideration before acting.

The negative coping would be avoiding the problem by resorting to drinking alcohol to forget the problem or taking drugs. Coping behaviors may also be classified as problem-oriented (Long term) or affective-oriented (short term) methods (Tysona et al., 2002). White's (2006) findings showed that the most coping strategies often used by mental health nurses working on locked units were having hobbies outside work. The second most often utilized coping strategy was having the knowledge that life outside of work is healthy, enjoyable and worthwhile. On the other hand, the least utilized coping strategy is having confidential one-to-one supervision, while the second least utilized coping strategy is having team supervision. Similarly, Coyle et al., (2000) revealed that most methods of coping with occupational related stress are knowing that life outside of work is health, enjoyable and worthwhile and having a stable home life that is kept separate from the work life. The more an individual adopts adaptive coping strategies, the less his/her stress, and the better his/her mental health. As mentioned earlier this means that although job stress is often harmful to an individual or organization, effective coping can often result in substantial benefits.

2. 10 Conclusion

The literature review set the stage for understanding stress among mental health nurses in other parts of the world, Africa and Zambia in general. This chapter covered a broader review of literature on factors associated with stress. It is clear that there are many stressors affecting mental health nurses globally. Although there is a plethora of studies on factors associated with stress among mental health nurses, there was a gap in the information related to stress among mental health nurses working in Zambia. This identified gap supports concerning the objectives of this study.

CHAPTER THREE

METHODOLOGY AND METHODS

3.1 Introduction

Methods refer to the behavior and instruments that are used in selecting and constructing research techniques (Kothari, 2009). Research techniques refer to the behavior and instruments used in performing research operations such as making observations, recording data, and techniques of processing data. According to Kothari (2009) the purpose of the methods chapter was to communicate to the readers exactly what was done to answer the research questions.

3. 2 Research design

The study employed a cross-sectional design that sort to establish factors contributing to stress among mental health nurses. The quantitative approach to gathering information focused on describing a phenomenon across a larger number of participants thereby providing the possibility of summarizing characteristics across groups or relationships. This approach was used to interview 96 individuals and applied statistical techniques to recognize overall patterns in the relations of processes.

3. 3 Study setting

A research setting is the physical location and conditions in which data collection takes place in the study (Polit and Beck**,** 2008). The study was conducted at Chainama Hills Hospital which is a national referral hospital for psychiatry and mental health problems, selected clinics in Lusaka, and Ndola Central Hospital psychiatric unit. The selected health centres were those which had nurses specialized in mental health nursing. These included Chilenje health centre, Chelstone health centre, Matero Referral centre and Prison health centre.

3. 4 Study population

According to Burns and Groove (2009) a study population includes all elements such as individuals, objects, events or substances that meet the sample criteria for inclusion in a study**.**

To this effect the study population included all qualified mental health nurses working at Chainama Hills Hospital, the selected health centres in Lusaka and Ndola Central Hospital psychiatric unit.

3.5 Sampling

Sampling is a process of selecting participants, events, behaviors or elements for participation in a study (Burns and Grove, 2009). Convenience sampling technique, which is non probability sampling method was used to select participants at Chainama Hospital, Ndola Central hospital and the selected health centres. Initially names of all Enrolled and Registered mental health nurses were got from the MOH. Since nurses work different shifts, some were off duty during data collection time, others were on leave and others were out of station for other assignments, only those who were found on duty were recruited. Furthermore, this sampling method was suitable because the number of participants was limited (Burns and Grove, 2009).

3.6 Sample size

The total number was only 104 Mental Health Nurses. Mental health nurses interviewed at Chainama hospital were 59, 10 Mental Health Nurses from the clinics, 13 Mental Health Nurses at Ndola Central Hospital and 14 part time nurses at Chainama hospital.

3.7 Inclusion Criteria

The inclusion criterion is defined as the list of characteristics that are eligible in the target population (Burns and Groove, 2009). Therefore for someone to qualify to participate in this study only Enrolled mental health nurses or Registered Mental health nurses who were attending to patients with mental health problems were interviewed. In addition only nurses who had been working for at least six (6) months qualified to participate in the study because they would have had some experience and contact concerning stress. Similarly mental health nurses who were available at the time of study and were willing to participate were included.

3. 8 Exclusion Criteria

An exclusion criterion is defined as a population that does not possess the required characteristics (Burns and Groove, 2005).

Those who were excluded from participating were Enrolled and Registered mental health nurses not operating from the study sites. Also enrolled and Registered mental health nurses not attending to patients with mental health problems.

3. 9 Data Collection

According to Polit and Hungler, (2008) data collection is the actual method of collection of the required information. Data was collected between 22nd May, 2016 and 18th June, 2016.

3. 10 Data Collection Tool

A data collection tool is a measuring device used in gathering information needed to address a research problem (Burns and Groove, 2009). In this study a structured interview questionnaire adopted from Devilliers, Carsons and Leary (DCL) was used. The structured interview schedule had a set of questions with fixed wording and sequence of presentation, and listing of possible answers to each question, Face-to-face interaction with participants enhanced the quality of the data collected because it was possible to evaluate the trustworthiness and the sincerity of the attention the participants were offering to the exercise. Devilliers, Leary and Carsons (DLC) stress tool is an already established standard scale developed by Devilliers, et al., (2006). It is a 20 item tool that describes situations which have been identified as causing stress for mental health nurses in the performance of their duties. The tool has a five point Likert scale. The respondent indicates his or her rating by making a mark at the appropriate number from one extreme to the other. To each number, an explanation was given as follows. 0= this activity causes me no stress. 1= this activity causes me a little stress. 2= this activity causes me quite a bit of stress. 3= l feel very stressed by this activity. 4= l feel extremely stressed by this activity. The tool was modified for the present study by getting only those questions that were relevant. Therefore, five questions were added to address components pertaining to this study leaving out those that were not required. The five questions which were added addressed Stigma and Stress. In addition the likert scale with five (5) levels has been collapsed into only two (2) levels that is zero to mild representing low and moderate to high representing high.

3.10.1 Plot study

Pre-testing of the data collection tools was done at University teaching hospital clinic six and Chainama health centres respectively. Only nine mental health nurses were interviewed to pretest the tool and the respondents were selected using convenience sampling. The purpose of the pre-test was to; identify any part of the instrument that would be difficult to understand or be misinterpreted.

3. 10.2 Validity

Validity explains whether a measurement instrument accurately measures what it is supposed to measure (Lobiondo-Wood and Haber (2006). To ensure validity in this study, all the independent variables as well as the confounders were considered in this study by capturing them in the interview schedule during data collection and data analysis. In addition the DCL (De Villiers, Carson and Leary) stress scale was used to measure stress levels. The DCL stress tool is a validated tool with Cronbach's alpha coefficient of 0.96. It is a well-known internationally tool used worldwide and is recognized by WHO.

3.10 .3 Reliability

According to Polit and Beck (2006) the instrument's reliability is the consistency with which it measures the target attribute. Reliability was measured by pre-testing it. During pre-testing, participants were asked if there were questions they did not understand. This allowed room for alteration of the questionnaire where necessary. Fortunately participants did not find problems with the questionnaire and therefore managed to answer without difficulties.

3.11 Ethical Consideration

Ethics are systems of moral values that are concerned with the degree to which research procedures adhere to the professional, legal and social obligations to the study participants (Polit and Beck, 2006). Ethical clearance was obtained from (UNZABREC), before collecting data to conduct the study. Permission was obtained from Chainama hills hospital Senior Medical Superintendent, Ndola central hospital Medical Superintendent, the Director of Research from MOH and District medical officer in Lusaka for authority. Informed Consent from participants before an interview was obtained.

In addition participants were asked to sign a consent form if they agreed to participate in the study. Six ethical principles namely, autonomy, beneficence, non-maleficence, veracity, fidelity, and justice was used to uphold moral values in research.

3.11.1 Autonomy

Respondents were informed that they had the right to withdraw from the study at any time and without a penalty.

3.11.2 Beneficence

Participants in this study were interviewed at their convenient time. Appointments were made a day in advance and consent was obtained before an interview.

3.11.3 Non maleficence

Participants were protected from psychological harm by having psychosocial support on standby. The psychological harm could result from being reminded on what they had gone through. The participants were informed that their participation in the study was on voluntary basis and that they would not be under any coercion to participate.

3.11.4 Veracity

Participants were told the truth about the study. They were told that participation was free, no money was available for those that would be interviewed.

3.11.5 Fidelity

Information taken from the participants was not manipulated to suit the outcome of study results. Results have been presented without changing anything as recommended by Brooker and Waugh (2006).

3.11.6 Justice

All individuals in the research project were treated alike, with consideration (being concerned with kindness) and respect (esteem and admiration). Information was treated the same, whether it was coming from registered or enrolled nurses. Similarly individuals were treated equally regardless of sex, marital status, social standing or religious belief.

CHAPTER 4

DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This Chapter presents findings of the study on work related stress among mental health nurses. Ninety six mental health nurses out of the expected 104 participants participated in this study, giving a response rate of 92 percent. Eighty-three participants were from Lusaka District while 13 participants were from Ndola District.

4.2 Data processing and Analysis

Following data collection, each questionnaire was double checked for completeness, consistency, legibility and accuracy. Numerical codes were allocated to each questionnaire. The Statistical Package for Social Science (SPSS) version 22 software package for windows was used for item analysis, extraction of factors, and calculation of internal consistency and cross validation. The results have been presented in frequency and cross tabulation tables starting with demographic characteristics of participants. Pearson's Chi Square test was conducted to establish associations between demographic factors and stress, while Fisher's exact test was conducted to test for any significant association between independent and dependent variables.

4.3 Presentation of findings

Stress levels in the five factors (Unpredictable Patients, Social Support, Conflict, Shortage of Nurses, and Stigma) were categorized into two stress scores; zero to mild Versus moderate to high. Moderate to high were likely to have high stress scores.

1. Low stress score – covering zero to mild stress
2. High Stress – covering moderate to extreme stress

4.4 Demographic characteristics of participants

The table below shows the characteristics of mental health nurses who participated in the research.

Table 3: Demographic characteristics of participants

Variable	Category	Frequency	Percentage
Sex	Males	30	31.3
	Females	66	68.7
Age	<30 years	22	22.9
	30-40 years	21	21.9
	41 years +	53	55.2
Marital status	Single	33	34.4
	Married	55	57.3
	Separated/divorced	3	3.1
	Widowed	5	5.2
Professional qualification	Enrolled mental nurse	30	31.3
	Registered mental health nurse	66	68.7
Work experience	1-5 years	28	29.2
	6-10 years	13	13.5
	11 years +	55	57.3

Table 3 shows that the majority (68.7%) of the participants were females. Twenty three percent participants were below 30 years and 21.9 % were aged between 30 and 40 years. On the other hand 55.2% participants were above 40 years old. The youngest was 22 years old while the oldest was 67 years old. The mean age was 41.33 years with a standard deviation of 11.69. In addition most of the participants (57.3%) were married while few (42.9%) were single. On professional basis more than half (68.7%) were registered mental health nurses while almost half (31.3%) were enrolled mental health nurses. Twenty-nine percent of participants had work experience of 1-5 years, while 57.3% had worked for over 10 years. The average work experience was 16.24 years (SD = 11.667); the minimum was 1 year and the maximum was 46 years.

Table 4: Unpredictable patients and stress scores among mental health nurses

	Frequency	Percent
No Stress	3	3. 1
Mild Stress	5	5. 2
Moderate Stress	22	22. 9
Extreme Stress	66	68. 8
Total	96	100

Table 4 presents overall results. Three (3. 1%) participants did not experience stress due to the unpredictable behavior of patients; 5 (5 2%) experienced mild stress; 22 (22.95) experienced moderate stress; and 66 (68. 8%) experienced extreme stress due to the unpredictable behavior of patients.

Table 5: Shortage of nurses and stress scores among mental health nurses

	Frequency	Percent
No Stress	Nil	Nil
Mild Stress	Nil	Nil
Moderate Stress	5	5. 2
Extreme Stress	91	94. 8
Total	96	100

Table 5 showed that the majority 91 (94. 8%) f the participants perceived that shortage of nursing staff caused extreme stress among the mental health nurses. Only five (5. 2%) of the participants were of the view that shortage of nursing cause moderate stress among mental health nurses.

Table 6: **Conflicts among professionals and stress scores**

	Frequency	Percent
No Stress	2	2. 1
Mild Stress	9	9. 4
Moderate Stress	31	31. 3
Extreme Stress	54	56. 3
Total	96	100

Table 6 results, with regard to stress associated with conflicts among professionals, showed that 31 (32. 3%) of the participants perceived that they were moderately stressed while 54 (56. 3%) perceived that they were extremely stressed. Nine (9. 4%) of the participants were mildly stressed by conflicts among professionals; only two (2. 1%) participants were not stressed by conflicts among professionals.

Table 7: **Lack of social support and stress scores among mental health nurses**

	Frequency	Percent
No Stress	Nil	Nil
Mild Stress	8	8. 3
Moderate Stress	20	20. 8
Extreme Stress	68	70. 8
Total	96	100

With regard to stress associated with social support, table 7 showed 68 (70. 8%) of the participants perceived that they were extremely stressed, while 20 (20. 8%) perceived that they were moderately stressed. The rest 8 (8. 3%) of the participants were mildly stressed by social support.

Table 8: **Stigma and stress scores among mental health nurses**

	Frequency	Percent
No Stress	38	39. 6
Mild Stress	26	27. 1
Moderate Stress	16	16. 7
Extreme Stress	16	16. 7
Total	96	100

Overall results, with regard to stress associated with stigma, showed that 38 (39. 6%) of the participants reported that they were not stressed while 26 (27. 1%) reported that they were mildly stressed. Sixteen (16. 7%) of the participants were moderately stressed by stigma while another 16 (16. 7%) participants were extremely stressed by stigma.

Table 9: factors associated with stress and stress levels

Factors	No stress		Mild stress		Moderate stress		Extreme stress		Total	
	count	Row N%	count	Row N%	count	Row %	count	Row %	count	Row %
Unpredictable Patients	3	3. 1%	5	5. 1%	22	22. 9%	66	68. 8%	96	100%]
Conflicts	2	2. 1%	9	9. 4%	31	32. 3%	54	56. 3%	96	100%
Shortage of nurses	0	0%	0	0.0%	5	5. 2%	91	94. 8%	96	100%
Social support	0	0%	8	8. 3%	20	20. 8%	68	70. 8%	96	100%
Stigma	38	36. 6%	26	27. 1%	16	16. 7%	16	16. 7%	96	100%

Table 9 shows independent variables and their stress scores in form of counts as well as percentages.

Figure 2: stress levels among participants

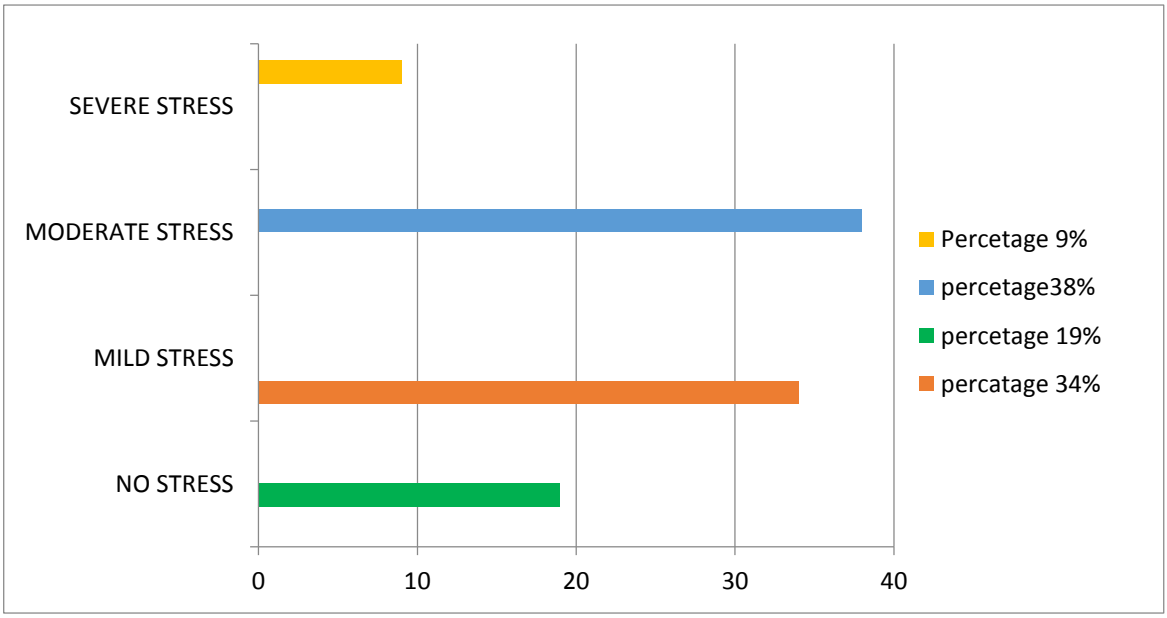


Figure 2 shows that 19 percent of participants had not experienced stress at all, 34 percent had mild levels of stress. Thirty eight percent were moderately stressed while nine percent were extremely stressed.

Table 10: Socio-demographic characteristics of Participants in relation to Stress levels

Variable	Values	Stress score		P – value	Result
		Low	High		
Sex	Male	9 (30%)	21 (70%)	.350	Not significant
	Female	14 (21.2%)	52 (78.8%)		
Age	<30 years	8 (36.4%)	14 (63.6%)	.296	Not significant
	30 -40 years	4 (19. 0)	17 (81.0%)		
	41 years +	11 (20.8%)	42 (79.2%)		
Marrital status	Married	14 (25.5%)	41 (74.5%)	.691	Not significant
	Single	9 (22.0%)	32 (78.0%)		
Professional status	Enrolled nurse	4 (13.3%)	26 (86.7%)	.100	Not significant
	Registered nurse	19 (28.8%)	17 (71.2%)		
Work experience	1 -5 years	9 (32.1%)	19 (67.9%)	.470	Not significant
	6 – 10 years	3 (23.1%)	10 (76. 9%)		
	11 years and above	11 (20.0%)	44 (80.0%)		

Sex – the results show that female respondents with stress levels of moderate to high were more likely to have high stress scores (78. 8% versus 21. 2%.) However the P value shows that there is no significant relationship between level of stress among mental health nurses and sex (P= .350)

Age - the table shows that mental health nurses between 30 and 40 years had moderate to high stress levels and were likely to have more stress scores than those above 41 years (81% versus 19%). The relationship between age and levels of stress was not statistically significant as the P value was not significant (P= .296).

Marital Status – Respondents who were single had moderate to high stress levels and were likely to have high stress scores (78.0% versus 22.0%) but there was no statistical significant relationship between stress and marital status (P= .691)

Professional qualification – the table shows that enrolled mental health nurses with moderate to high stress levels were more likely to have high stress scores (86. 7% versus 13. 3 %.) Nevertheless there was no statistically significant association between a registered mental health nurse or enrolled mental health nurse and levels of stress (P= .100)

Work experience – the findings have revealed that those who had worked for 11 years and above scored moderate to high stress levels and were more likely to have high stress scores (80.0% versus 20.0%). Nonetheless there was no statistically significant association between years of experience and stress levels (P= .470)

Table 11 - factors associated with stress among mental health nurses

Factors that may be associated with stress	Stress Score		P- Value	Result
	High	Low		
Care for unpredictable patients	52.7%	47.3%	P=0.113	Not significant
Shortage of Nurses	51.6%	48.4%	P=0.613	Not significant
Conflicts among professionals	57.6%	42.4%	P=0.002	Significant
Lack of Social Support	55.7%	44.3%	P=0.002	Significant
Stigma	84.4%	15.6%	P= 0.001	Significant

Concerning care of patients with unpredictable behavior, the results show that respondents with stress levels of moderate to high were more likely to have high stress scores (52.7% versus 47.3 %,). However the P value shows that there is no significant relationship between level of stress among mental health nurses and caring for patients with unpredictable behavior (P= 0.113). Similarly the second factor concerning shortage of nursing, table 11 shows most of the mental health nurses worried about shortage of nursing staff. Those who were worried about shortage of nursing staff had stress levels of moderate to high and were more likely to have high stress scores. (51.6% versus 48.4 %). The relationship between shortage of nursing and levels of stress was not statistically significant (P = 0.613). However concerning conflict among professionals, table 11 shows that participants with moderate to high stress levels are more likely to have high stress scores (57.6% versus 42.4%.

A significant relationship between staff conflicts and stress levels was therefore evident (P = 0.002. Additionally on Social support, table 11 revealed that respondents who scored moderate to high stress levels were more likely to have high stress scores (55.7% compared to 44.3 %.). There was a statistically significant association between lack of social support and stress levels P = 0.002). Furthermore with stigma, table 11 shows that those who scored moderate to high stress levels were significantly likely to have high stress scores. (84.4 versus 15.6% zero to mild). The analysis reveals a statistically significant association between stigma and levels of stress (P = 0.001).

CHAPTER FIVE

DISCUSSION

5. 1 Introduction

This chapter discusses the findings of the study and is done in light of other studies and literature similar to the study area. Demographic characteristics with association to stress will be discussed. In addition independent factors associated with stress among mental health nurses in Ndola and Lusaka will be discussed will be discussed.

5.2 Demographic characteristics and total stress scores

Under demographic factors, the youngest was 22 years and the eldest was 67 years. Most of the participants were married. It was found out that that there was no statistically significant relationship between stress and all the demographic characteristics (sex, age, marital status, professional qualifications, and work experience).

Regarding gender the current study results are in line with Hashemian et al., (2015) who found no relationship between sex and stress. The purpose of the study conducted by Hashemian et al., (2015) was to survey stress among Iranian nurses in different hospitals. Contrary to the present findings, Yada et al., (2010) conducted a study whose aim was to ascertain the differences in job stress experienced by female and male mental health nurses. The study found that female mental health nurses had significantly higher levels of stress compared to male mental health nurses especially when dealing with patients who were unpredictable. In another study Raftopoulos et al., (2012) explored factors associated with burnout in Cyprus and found that 65 percent of nurses reported that their job was stressful and the prevalence of fatigue was higher in females (93 percent) than in males (87%). In Lusaka and Ndola, the results could mean that mental health nurses are trained in a way that female mental health nurses are able to follow guidelines that enable them to work without problems. This may not have an impact on the quality of care for patients arising from increased absenteeism in fear of caring for patients who are unpredictable. It may also mean that ward managers have strategies that help female mental health nurses care for mentally ill patients without being highly stressed. Further research should investigate on stress level differences among male and female mental health nurses.

The current study results revealed no statistically significant relationship between stress levels and age (P=.296). Meredith et al., (2015) conducted a research to identify the extent of stress and burnout experienced by mental health nurses and to identify demographic characteristics and work situations associated with stress. The results revealed that nurses below the age of 25 years reported high levels of stress and burnout. Similarly Hashemian'**s** (2015) and Zaki (2016) studies found the age of the nurses as a significant factor in explaining stress among nurses where older nurses had 28 percent lower stress than younger nurses. The present finding could mean that in Zambia young mental health nurses do not easily get frustrated when caring for patients with mental illness. It may also mean that they are trained in such a way that they develop defensive mechanisms faster and manage to deal with difficult situations. Another possibility is that time tables are written in such a way that young nurses work with elderly ones making it easy for them to be mentored properly by elderly ones. Future research should be to investigate and compare stressors faced by the young and old mental health nurses.

The present results illustrate that there was no statistically significant relationship between stress levels and marital status (P=.691). This is consistent with Meredith et al., (2015) findings who found no significant relationship between marital status and stress. However, Hashemian et al., (2015) results revealed that married and widowed nurses had higher stress levels than single nurses because single nurses had no extra responsibilities for their home management and had no accountabilities for spouse and children. In the same line, Zaki (2016) reported that married mental health nurses are stressed because they are saddled with most of the house work and child care responsibilities. Conversely, Courtney et al., (2001) found that only divorced and widowed nurses had higher rates of stress. All the studies mentioned above have explained the importance of social support. An environment with no social support increases job stress; hence according to the present findings in Lusaka and Ndola, married mental health nurses and single mental health nurses have family support equally. Whether single or married, with good social support, mental health is promoted and an individual will not feel highly stressed. A research in future should be a comparative study to determine if the pressures are similar between the single, divorced and widowed women or men.

Results of the present study show that there is no statistically significant relationship between stress levels and professional qualifications (P=100). These results are similar to Zaki (2016) and Hancock's (2003) results which highlighted no statistically significant relationship between stress and education level. However Seedat et al., (2000) study revealed that low education was found to be positively correlated with more psychological symptoms. The present results could mean that stress in mental health nurses has nothing to do with how much education an individual has. As long as an individual has problem solving skills, he or she can solve a problem without feeling highly stressed. It may also mean that enrolled mental health nurses and registered mental health nurses work hand in hand such that if any problem arises, it is tackled by both hence not increasing stresses in both enrolled and registered mental health nurses. Further studies should establish if enrolled mental health nurses experience more stress than registered nurses.

The present study results did not show any statistically significant relationship between stress and work experience. (P= .470). Contrary to the present study result, Dawood et al., (2017) identified a positive relationship between age and years of experience where nurses with 6-10 years of experience showed higher level of job stress than nurses with less than 5 years, or more than 11 years' experience. Likewise the findings from Su (2008) recognized that middle aged nurses with 6-10 years' experience are given full accountabilities at work and many roles during this phase. Similarly, registered psychiatric nurses association of Saskatchewan (2016), found that the younger and less experienced showed more psychological symptoms than those who were older and had more experience. This could mean that in Zambia the experienced mental health nurses probably work hand in hand with juniors to help them deal with different problems at any time of day or night. It could also mean that mentorship for juniors start during their training immediately they start going for practical experience, so that at any time when faced with a problem, a mental health nurse will perform because he or she has problem solving skills. It is important for ward managers to balance time tables in such a way that you have juniors and seniors every shift. Future research should be to determine the relationship between years of experience in a psychiatric ward and levels of stress.

5.3 independent variables and stress

Many specific factors may be associated with stress among mental health nurses. However, the chi-square test results show no statistically significant relationship between predictability of patients and stress levels. This suggests that stress in mental health nurses may be compounded by other factors apart from caring for patients with unpredictable behavior such as unsuitable working conditions. Contrary to the present study findings, Currid (2008) study revealed that mental health nurses complained that their jobs were very stressful and were exposed to higher than average levels of stress when dealing with unpredictable patients. The reasons for the present results could be that, despite having difficult patients if mental health nurses are supporting each other, anxieties and fears are reduced. In addition Chainama hospital and Ndola central hospital have part time nurses all the time, similarly the use of nurse assistants every shift is able to beef up allowing mental health nurses managing without so much stress. Subsequent research concerning care for patients who have unpredictable behavior, should be qualitative in essence; it should scrutinize their endurance. It would also be interesting to use another statistical method to check if the findings can be the same.

Contrary to the present study result which did not show a significant relationship between stress and shortage of nurses, the following researches support shortage of nurses as a major contributor to stress among mental health nurses. Buchanan and Considine (2002) emphasized that the increased turnover and acuity of patients without adjusting staffing levels was a great source of stress for registered nurses. Hamaideh (2012) study measured levels of occupational stress and Jordanian mental health nurses showed high levels of occupational stress regarding client related difficulties, lack of resources and work load. Lower psychiatric nurse staffing levels were associated with a higher risk for nurse burn out. In Zambia nurses from general wards are most of the time asked to go and work as part time nurses. This naturally reduces the shortage of mental health nurses and also reduces the work load and hence explaining the present results. The future research should be done with a larger sample size in all mental hospitals like Kasama, Kabwe, Mansa Mongu and Livingstone. The research should investigate if mental health nurses find poor staffing as stressful.

The result of the present study reveal conflicts as another factor identified by mental health nurses as stressing their psychological wellbeing in their work place (P = 0.002). Sarafis et al., (2016) study conducted in Greece showed a significant inverse association of conflicts between mental health nurses and physicians. Higher levels of perceived stress arising from conflicts with colleagues were related with lower levels of implementation of human presence behaviors. Problems with peers and conflicts with doctors may lead nurses to spend a lot of energy coping with the difficulties that rose from these aspects, holding them at the same time away from focusing on patients. Currid (2008) asserts that conflicts were among the stressors and were associated with anxiety and insomnia. Mental health nurses reported their jobs as very stressful and experiencing higher than average levels of stress. Negarandeh and Nayeli (2009) stated that Iranian nurses' experienced conflict as frequent incident in their work and this caused a lot of stress.

According to the present findings, how nurses perceive conflict influences how they behave or react to it. Therefore Negarandeh and Nayeli (2009) recommended that nurses and nurse managers should encourage any virtues and activity that enhances such understanding and interaction. This approach would benefit the quality of patient care through a health work environment. A reasonable amount of conflict in the form of competition can contribute to a higher level of performance but if not managed properly can disrupt collaborative efforts, leads to unprofessional behaviors, increases psychological stress and emotional exhaustion and results in mistreatment of patients (Negarandeh and Nayeli, 2009). The implication of having unresolved conflicts affects the care of patients (Negarandeh and Nayeli, 2009).

Konstantin's and Ouzouni (2017) study identified significantly lower levels of stress in mental health nurses compared with general nurses. The suggestion for this was attributed to the belief that mental health nurses are assertive and therefore can express their opinions in multidisciplinary team whereas general nurses have fewer opportunities to do this. In addition, the kind of their work appears to protect mental health nurses from the levels of stress and burn out experiences compared to their general nurses' counterparts. Mental health nurses can only express themselves if they are given an environment that is conducive and facilitates discussions without intimidation.

It is unclear whether the job related stressors affecting mental health nurses in Zambia are unique to them or whether nurses from other departments face similar related stressors like conflicts in the organization. It would be appealing if prospect studies would address this issue. The present study showed a statistically significant relationship between stress levels and social support. P=0.002). The present finding is supported by Currid (2008), who investigated experiences of mental health nurses and found that 70 percent of the nurses suffer from physical or mental health problems associated with work related stress due to lack of social support. The present findings are also in agreement with the study which was conducted by Hamaideh (2012). Data were collected from 181 mental health nurses who were recruited from all mental health settings in Jordan. Jordan mental health nurses showed high levels of occupational stress regarding "client related difficulties, lack of resources and workload" social support was one of the predictors of occupational stress among Jordan mental health nurses. This shows that the role of the ward sister is of paramount importance in establishing a cooperative working environment which fosters low stress and high job satisfaction for the staff.

Nakakis and konstatino (2012) investigated job satisfaction in mental health nurses and reported that factors such as 'lack of social support' contributed to low job satisfaction. Similarly Elertsen and Vegsund's (2015) study on social support and stress in mental health recommend the need to ease the workload because a heavy workload appears to reduce the level of engagement in managers, that supervisors are overworked, stressed out, and frustrated by competing demands and pressure from their peers. An overworked manager may also neglect his staff, but staff members should learn how to ask their managers or supervisors for guidance. Hence the importance of good communication skills and assertiveness skills in mental health nurses. This can help mental health nurses in the way they approach their supervisors if they have problems to sort out. A supervisor would appreciate a subordinate who is open to discuss issues in an acceptable and respectable manner. This probably is possible if the supervisor sets up a positive environment and encourages the staff members to seek help if a task appears unsafe or causes pain. Social support consequences are positive health states like personal competence, decreased anxiety, and effective coping behaviors (Omoniyi et al.).

Therefore it is imperative that comprehensive interventions are aimed at minimizing the risk of occupational stress and improving social support if needed. Future research should explore registered mental health nurses perception of social support. The study results also showed a significant relationship between Stigma and levels of stress (P=0. 001). This is supported by Verhaeghe and Bracke's study (2012). The study investigated the associative stigma among mental health nurses. The results revealed that among mental health nurses, associative stigma is related to depersonalization, more emotional exhaustion and less job satisfaction among mental health nurses. Likewise, the findings from Dawood et al., (2016) are in line with the present findings. Dawood et al., (2016) discovered that mental health nurses were moderately stressed (about 61%).

The present findings have discovered that apart from other stressors like poor social support and conflicts in the unit, mental health nurses complain that they get less affirmation from their role. The present results show that mental health nursing as a subspecialty of psychiatry is devalued within the profession of nursing. Part of the trend could be due to the devaluation of relational practice and the prizing of technological skills (Ross and Goldner, 2009). Furthermore, it was postulated that this lower status and prestige within the profession has been conferred in a type of 'stigma by association' or 'courtesy stigma' where by those who are associated with the mentally ill are also judged by the same stigmatizing stereotypes.

Similarly, Sercu and Ayala (2015) investigated if stigma influences mental health nursing identities. A qualitative case-study design was used and ethnographic data were gathered from 33 nurses in 4 wards in two psychiatric hospitals in Belgium. The findings suggested that it does influence mental health nurses identity and that tackling stigma is a particularly important personal motive for nurses to work in mental health care. It is important that mental health nurses understand why some people stigmatize them and hence should work towards helping the community and other nurses understand mental illness. Flaskerud (2007) pointed out that several scholars have noticed recently that mental health nurses in the discipline of psychiatry are recipients of stigma from the public, the media and leads to stress.

According to Flaskerud (2007) the public believe there is something wrong with nurses who work for clients who have mental illness. Leimkuhler et al., (2016) found that the negative images of psychiatry as well as the stigmatization of psychiatric institutions and patients are a strikingly persistent phenomenon. In comparison to nurses in a number of other specialty areas, mental health nurses were seen as the least liable 'to be described as skilled, logical, dynamic and respected' (Halter,2008). With these depictions, Halter (2008) explained that it is not surprising that mental health nursing was found to be among the least favored of the specialty areas, with a relatively few nurses interested in making a career in this area of practice. The present findings suggest that mental health nurses may be stigmatized by association. Stigmatized people suffer from chronic stress, which has additional negative effects on their physical and mental wellbeing. Goader (2012) explained that general nurses' lack of knowledge of mental health nursing was directly predictive of the identified negative attitudes and stigma towards mental illness and consequently mental health nurses.

Likewise mental health nurses should be helped to accept their profession. Mental health nurses should not isolate themselves but should mingle with other nurses to show off their specialty that they like it and help general nurses to know that they are not immune to mental illness. The ministry of health has harmonized the fact that the public does not understand HIV/AIDS and has done a lot of sensitization helping multiple people to have acknowledged and living positively. Future research should be to ascertain from the society what they think of mental health nurses and why. This would give an opportunity to talk about mental illness and fraternize. Likewise mental health nurses should be helped to accept their profession considering the chi square result and should in turn sensitize the community about mental illness and its associates. Awareness programs should be provided for mental health nurses to enable them increase their self-esteem**.**

5. 4 Recommendations and conclusion

5.4. 1 Policy – Makers

The present study revealed a statistically significant relationship between stress levels and social support, therefore it is recommended that annual awareness campaigns on stress management need to be conducted at national level concerning mental health nurses and importance of good social support to avoid anxieties that may lead to burnout.

These awareness campaigns should help supervisors and mental health nurses develop better communication and assertiveness skills to enhance better interactions.

5. 4. 2 Education

The results of this study revealed that there is a significant relationship between stigma and stress levels. Therefore it is recommended that the General nursing council (GNC) establish psycho education programs for mental health nurses to learn how to cope positively with stress in their working environment. During their training, student nurses should be motivated to have interest in what they are doing, to be helped to have confidence in them and increase their self esteem

5. 4. 3 Research

The present results revealed a statistically significant relationship between social support and stress levels. In view of this result, future research on stress among mental health nurses should be qualitative in nature; this would help to explore their experiences. A qualitative research if conducted will help to ascertain how they perceive social the support and identify what they expect to reduce stress.

5.4. 4 Nursing Practice

The study results showed a significant relationship between conflict and levels of stress. Programs or workshops should be implemented for understanding unique stressors and to promote resilience among mental health nurses and increase their self-esteem. Symposiums should be conducted where mental health nurses, doctors and supervisors interact and share ideas in harmony without intimidation.

5. 5 Limitations of the Study

It was a challenge accessing mental health nurses at certain places. The ministry of health gave the investigator a list of names for mental health nurses and where they were operating from. Upon going to kabwata health centre, Railway health centre and kamwala health centre respectively, the six mental health nurses supposed to be found there were not even known by the sister incharges of these health centres. It was not known whether they had changed names or were just shunning away because of stigma.

5. 6 Dissemination and utilization of findings

The results were presented at the postgraduate seminar week from 15th to 19th August, 2017 held at UNZA School of Medicine. Then the results of the study were presented to the School of Nursing Sciences, University of Zambia (UNZA) on 10th September, 2017. The results will also be presented to various stake holders involved in the provision of mental health services at various fora such as, workshops, seminars and conferences. The results will be published in Medical Journal of Zambia. In addition, five copies of the bound research report were printed and submitted to the following;

1. School of Nursing Sciences
2. UNZA Medical Library and Main Library
3. Ministry of Health
4. Chainama College
5. Researcher

5. 7 CONCLUSION

The current study explored the factors associated with stress among mental health nurses in Lusaka and Ndola. The sample used was 96 mental health nurses conveniently selected. Results of this study suggest that mental health nurses are moderately stressed. Five hypotheses were formulated to test the variables. Lack of social support, professional conflicts and stigma were found to be significant factors that stress mental health nurses. On the other hand, there was no statistically significant relationship between stress and social demographic data of mental health nurses under study. Based on these findings, recommendations have been made for the Ministry of health to establish psycho educational programs for mental health nurses to learn how to cope with job stress in their working environment.

REFERENCES

Abdalranhan, A. A. (2013), **Stress and Coping among Psychiatric Nurse.** Middle East Journal of Nursing. 7 (4): 10 - 16

Aiken. L. H., Clark, S. and Sloan, M. (2002). **Hospital Nurse Staffing and patient mortality.** Available from: http//: www.nursing.upenn.ed/linda,Aiken Accessed on 02/02/2015

Aiken, T. D. (2004). **Legal, ethical, and Political issues in nursing** (2nd edition). Philadelphia: F. A. Davis Company.

Aiken, L. H., Fagin, M. C.,Sloane, D. M., and McHugh, M. C. (2011), **Nurses job dissatisfaction, burnout and frustration.** 30 (2): 202-210 Available from: http//:www.ncbi.nlm.gov/pmc/articles pmc3201822. Accessed on 02/01/2016

Aluwole, D. and Awaebe, J. (2002). **Patterns of Stress, Social Support and Mental Health among Nigerian Women.** Available from: http://www advancing women.com/aw/word press Accessed on 03/04/2015

Akinboye, J.O., Akinboye, D.O and Adeyemo. D.A. (2002), **Coping with Stress in life and work place.** Ibadan: Stirling-Horden Publishers.

Ajala, E.M. (2014). **The influence of workplace environment on workers' welfare, performance and productivity.** The African symposium. 12(1):141-149

American Nurses Association (ANA). **Health and Safety Survey.** (2003). Available from: http://www.nursingworld.org/about/mailroom.htm 200lb Accessed on 23/12/2015

American Psychological Association (2015). **Stress at the work place.** Available from: https://ideas.repec.org/s/sae/indqtr.html Accessed on 18/11/2015

American nurses Association (2012). **Violence in nursing** Available from: http://www.nursing world.org/stressful-incidents-of-physical-violence. Accessed on 10/02/2015

Bachanan j. and Considine. G. (2002). **Stop telling us to cope; a report for the NSW Nurses Association.** S*y*dney. University of Sydney**.**

Ball, R. (2004). **Work place Stress** Vol. 23 (5): 62-63. Available from http://wwwisrj.org/Article.aspx Accessed on 05/11/2014

Ballard, L.P. (2006). **Mental health nursing and stress**. Available from: http://www98.griffith.edu.auldspace Accessed on 05/11/2014

Berkman, Bolger and Amarel (2007). **Social Support.** Available from: http://humrep.oxford journals org. Accessed on 11/01/2015

Beautchamp, T.L and Childless J.F. (2001), **Principles of Biomedical Ethics** (15th edition). New York: Oxford University Press

Bhi, K.S.K., Dinos, S., Stayed, A. S. and White, D. P. (2012). **A synthesis of the evidence for managing stress at work: A Review of the Review's reporting on Anxiety, Depression and Absenteeism.** Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/pmc3306941on Accessed on 17/01/2017

Bickford, M. (2005), ***Stress* in the work place: A general overview of the causes, the effects and the solutions** Available from: heathergood.ca/wp-content/uploads/workplace-stress- Accessed on 18/01/2017

Bimenyimana, E., Poggenpoel, M., and Niekerk, V. (2009). **The lived experience by Mental Health nurses of aggression and violence from patients.** 2 (7): 2222 – 6990

Brennan, P., Sebern, M. and Brown, R. (2000). **Stress in mental health.** Available from: http://www98.griffith.edu.au/olspace/bitstrem/handle/100727419/71238.pdf:jsessionid Accessed on 29/12/2015

Bhat, M. S. and Jose,T. T. (2013), **A descriptive Study on stress and coping of nurses.** 3(1): 10-18 Available from:www.iosrjournals.org Accessed on 6/2/2014

Brooker, C. and Waugh, A. (2007). **Foundations of Nursing Practice**. Toronto: Elsevie

ISBN 10: 0 7234 3356 9

Buerhaus, P. (2005). **American Association of college nursing: Insufficient staffing** Available from: http://www.aacn,nche.edulmedia-relations Accessed on 23/02/15

Bureal of Labour statistics (2006). **Assault of nurses**. Available from: www.hrsa.gov/advisory committee. Accessed on 29/12/2015

Burns, N. and Grove, S.K. (2009**). Understanding nursing research** (3rd edition). Pennsylvania: Saunders publishing Company

Cahil, J. (2006), **Psychosocial aspects of interventions in Occupational Safety and Health: American journal of industrial medicine.** 29 (4): 308 - 318

Cardillo, D. (2011), **seven strategies for managing conflict.** Available from: http:// www.nurse.com /cardilo/seven-strategies Accessed on 06/01/2015

Chainama Hospital (2012). **Proposed Establishment for Nurses**. Lusaka: Chainama Hills Hospital.

Chang, E. and Hancock, K. (2003). **Role Stress and role ambiguity in new nursing graduates in Australia**. Journal of Nursing and Health Science. 5:155-163

Chang, L. (2016). **Longitudinal relationship between two self-efficacy types and stress in active older adults in Taichung city.** Taiwan international journal of mental Health Promotion. 18 (2): 95-105

Chaplin, T.,Hong,K..,and Sinha, R.(2008). **Gender differences in response to emotional stress among nurses. Clinical and Experimental Research.** 32 (7):1242 - 1250

Cheng, Y., Chen, X. L., Lou, C., Sonenstein, L. F., Kalamar, A. (2014). **Journal of Adolescent Health. The well being of adolescents in vulnerable environments study.** 55 (6) : 531 – 538

Cherry, K. (2013). **Face Validity** Available from: psychology about.com/odon /findex/g/face-validity Accessed on 02/01/2016

Chieh, Yuen, Tsai, James, and Liou, J. H. (2015). **Consequences of stress** 18 (1): available from: http://wwweconpapers. Repec.org/article Accessed on 12/03/2015

Clark, S.P., Sloan D. M., Sochalski, J and Aiken, L.H. (2004). **A systemic review of stress among mental health nurses** 135: 788-794

Courtney, M., Yacopetti, J., James, C. and Walsh, A. (2001). **Quensland Public sector nurse Executives: Job Satisfaction and career Opportunities.** Australian Health Review. 28: 83-95

Coyle, Edwards, Burnard and Hannigan (2000). **Burnout in Mental Health Services: A review of the problem**. Available from: http://www.Acbi. Nim.nih.gov/pmc/articles Accessed on 23/01/2015

Crouch, (2002). **How l beat stress at Work: First Choice for Jobs.** Nursing Times journal. 98 (7): 14-22

Currid, T.J. (2008). **The lived experience and meaning of stress in acute mental health nurses.** Nursing Times journal 17 (14): 880-4

Dawood, E., Mitsu, R. and Monica A. (2017). **Perceived Psychiatric Nurses Stress; A cross sectional study.** Journal of Nursing and Health Science. 6(2):37-47 Available from: www.iosrjournals.org Accessed on 10/ 07/2017

Donatelle, R. J. and Davis. L. G. (2000). **Health: The Basics** (2nd edition). London: Alllyn and Bacon ISBN 0-205-26254-6

Dosani, S. (2003). **Stress a problem for mental health nurses**. Available from: http://ebmh.b.com/content Accessed on 25/02/2015

Duhart (2001). **Violence against Nurses: impact of stress. Department of justice, office of justice programs. Available from: http://www medscane. com Accessed on 12/04/2017**

Elaine, L. (2013). **Stress Factors available** from: **www.m.org/resource** Available from: http://www.medscape.com/viewarticle Accessed on 10/02/2015

Elakkuvana, D. B. R. (2011). **Mental Health Nursing.** New Delhi: Japee Publishers

Eliyahu, A. B. (2014). **Difference between qualitative and quantitative approaches.** Available from: http://www.academia.edu/.difference-bet-qualitative and quantitative Accessed on 04/06/2015

Flaskerud, J. and Wilson, B. (1998). **Conceptualizing vulnerable populations in health-related research**. Nursing journal, 47 (2): 60 – 78.

Flaskerud, J. H. (2017). **Stigma and Psychiatri/ Mental Health Nursing**. Available from: www.tand frontline.com/doi/abs/10.1080 Accessed on 16/03/2017

Gates, M., Gorden, L. G., and Paul, S. (2006). **Violence against Nurses and its impact on stress and productivity** 29 (2): 59-67

Gerberich., Francis.L.F.and Scriven, L. F. (2004). **Violence against Nurses**. Journal 48(3): 437-451

Goalder, N. and Schulze, L. (2006). **Mental Health Nurse Burnout and stress: Options for prevention** Available from: **http://www** journals.sfu.ca/hneh/index.php/hneh/article Accessed on 20/10/2014

Gupta, M.K (2010). **Heart: Care (**6th edition). New Delhi: Pustak Mahal. ISBN 978-81-223-0117-7

Garrosa, E., Moreno, B. Jimenez, Liang, Y. and Gonzalez, Jose L. (2006). **The relationship between social demographic variables, job stressors, burnout and hardy personality in nurses : An exploratory study.** Madrid

Habaghery, A. M.,Khamechian and Alavi, M. N. (2012). **Perceptions of Occupational Stress and its influencing factors: A qualitative study.** Iranian journal of Nursing and Midwifery Research 17(5):325-359

Halter, M. J. (2008). **Perceived Characteristics of psychiatric Nurses: Stigma by Association. Archives of Psychiatric Nursing.** 22 (1): 20. Available from: https://wwwdoi.org/10.1016/.npnu Accessed on 12/06/2017

Hamaideh, H. S.(2012). **Occupational Stress, Social Support and Quality of life among Jordanian Mental Health Nurses** Available from: https://dx.doi.org/10.3109/01612840 33(1): 15 - 23 Accessed on 06/05/2017

Hanrahan, N. et al (2010). **Relationship between Psychiatric Nurse Work Environments and Nurse Burnout in Acute Care General Hospitals**. 3:198-207 Available from doi 10.3109/01612840903200068 Accessed on 9/06/2017

Happel, B. (2008). **Stress, Burnout, and job Satisfaction in rural psychiatric nurses:** A Victorian study**.** Australian Journal of Rural Health 12: 120-125.

Hengst, A. (2014). **Understanding work place stress_ Human Resources. Available** from: http://www.google.com Accessed on 29/12/2015

Hoff (2001). **Mental health nursing and stress** Available from: http://www 98.grffith.edu.au/dsace Accessed on 12/03/2015

Hushemian, M. S. (2015). **Stress Among Iranian Nurses in Critical Wards.** Iran Red Crescent Med 17(6): 22612

Jenkins, R. and Elliot, P. (2004). **Stressors, burnout and Social Support in acute mental health Settings:** Journal of Advanced Nurse 48 (6): 622-631

Jennings, B. M. (2014). **Work stress and Burnout among Nurses: Role of the Work Environment and Working conditions** Available from: bmjennings@cox.net Accessed on 02/02/2014

Jolley, J. (2013). **Nursing and Health: Research Skills**. London: Pearson Education Limited.

Kane, P. P. (2009). **Stress causing psychosomatic illness among nurses** 13 (1): 28-32 Available from: www.ijoem.com Accessed on 10/06/2017

Keltner, N. L., Schwecke, L.H and Bostron, C.E.(2003). **Psychiatric nursing** (5th edition). St Louis: Mosby. ISBN-10:0-323-03906

Konstantinos, N., and Ouzouni, C. (2008). **Factors influencing stress and job satisfaction of nurse working in psychiatric units: A Research Review.** Health science journal (4):183-189

Kothari, C. R. (2009). **Research Methodology: Methods and Techniques** (2nd edition). New Dehi: New Age International Publishers. ISBN : 978-81-224-1522-3

Kozier, B., Erb, K., Berman, A., Snyder, S., Lake, R. and Harvey, S. (2012). **Fundamentals of Nursing Concepts**, **Process and Practice.** Harlow: Pearson Education Ltd.

Lambert V. and Lambert C., Yamase H. (2004). **Workplace stressors, ways of coping and demographic characteristics as predictors of physical and emotional health of Japanese hospital nurses** international journal of nursing studies. (41):85 - 97

Leifer, M. (2004). **Mental health nursing and stress.** Available from: http://www98.griffith.edu. au/dspace Accessed on 21/03/2015

Leimkuhler, A. M. M., Moller, H. J. and Maler W. (2016). **Guidance on improving the image of psychiatry** journal of mental health 266 (2): 139-154 Available from: https://www.ncbi.nim.nih.gov/labs/articles/26874959 Accessed on 10/04/2017.

Liu. C., Spector, E., and Shi, L. (2008). **Use of both qualitative and quantitative approaches to study job stress in different gender and occupational groups**. Journal of Occupational Health Psychology. 13 (4): 357-370

Lobiondo-Wood. and Haber, J. (2008). **Nursing Research: Methods, Critical Appraisal and Utilization.** New York: Mosby.

Magarey, J. (2013). **Burden taking its toll on stressed mental health nurses** Available from: http;// www.stress.org/what is stress Accessed on 16/02/2015

Magnavita, N. (2014). **Workplace violence and Occupational stress in health care workers: a chicken and egg situation** Available from onlinelibrary.wiley.com/doi/10.111/jnu.12088 Accessed on 17/01/2017

Matsiko and Kiwanuka (2003). **Shortage of trained Manpower** journal of mental health 14 (1): 3 – 12

Maxon, R. (2015). **Occupational stress.** Available from: http://www.fdu.edu/newspubs/magazine/99su/stress.html Accessed on 22/03/2015

McCulloch, A. (2014). **Mental Health Foundation report**. Available from: http://www.mentalhealth.org.ok/our-news/news-archive/2013-news-archive/13018-stress/ Accessed on 22/02/2015

Mental Health Council of Australia (2005). **Mental Health Council of Australia's Submission to the productivity commission health workforce study.** Available from: http://www.pe.gov.au /study/health care/subs/sub Accessed on 20/03/2015

Meredith,P., Yang, S. and Khan, A. (2015). **Stress and burnout among health care professionals working in a mental health setting in Singapore**. Available from: http://dx.doi.org/10.1016/j.aip Accessed on 20/06/2017

Ministry of Health (2004). **Analysis of mental health Staffing levels: A Special Position Paper.** Lusaka. Zambia.

Ministry of Health (MOH). (2005). **Mental Health Policy**. Lusaka: MOH.

Ministry of Health (MOH) (2006). **National Health strategic Plan**, Lusaka: MOH.

Negarandeh, R. and Nayeri, D. N. (2009). **Conflict Among Iranian Hospital Nurses: A qualitative Study.** Available from: www.who.int/mental/evidence/who-report-iran.pdf. Accessed on 12/06/2017

Needleman, Healy & Mckay. (2000). **Shortage of nurses.** Available from: http://www8.gsb.columbia.edu Accessed on 10/03/2015

Ng, S., Kessler, L., Srivastava, R., Dusek, J. and Duncan, D. (2010). **Growing practice specialists in mental health: addressing Stigma and recruitment with a nursing residency programme, Nursing Leadership**: Nursing journal 23: 101-112

Nurses Association of Saskatchewan (2016***). Factores affecting Post Traumatic Stress in Psychiatric Nurses***. Available from: www.rpnas.com/about/papers/pmd-rpn Accessed on 3/06/2017

Omoniyi, O. S.,Aliyu, D., Adeleke, T. I., Ndu, A.and Paul, K. M. (2016). **Perceptions of Nigerian Mental Health Nurses towards Community Mental Health Nursing practice in Nigeria.** World journal of preventive medicine 4 (2): 25-31. Available from: www.pubs.sciepub.com/gpas/4/2/1 Accessed on 24/02/2017

Ozba, E., Johnson, D., Dimoulas, E., Charney, D. and Southwick, S. (2007). **Social Support and Resilience to Stress** 4 (5): 35-40 Available from: https://www.ncbi.nm.nil.gov Accessed on 22/02/16

Polit, D. F. and Beck, C. T. (2008). **Generating and Assessing Evidence for Nursing Practice.** (8th edition). Philadelphia: Lippincott Williams and Wilkins.

Polit, D. and Hungler, B. (2OO8). **Nursing Research: Principles and Methods (**5th edition**).** Philadelphia: Lippincott Williams and Wilkins: SBN-13: 978-039755138

Raftopoulos, V., Charalambous, A. and Tulias, M. (2012). **The factors associated with burnout Syndrome and fatigue in cypriot nurses: a census report**. Available from: https://wwwbmcpublic health.biomedcentral.com/articles/10.1186/1471-2458 Accessed on 6/ 06/ 2017

Roberts, R., Paula L., Grubb,, James W. and Grosch. (2012). **Alleviating Job Stress in Nurses.** Available from: http://www Disclosures Accessed on 08/02 /14

Robinson, M.M. (2014). **Vicarious trauma and burnout** Available from: https://www.netce.com/course content Accessed on 29/12/2015

Ross, C. A. and Goldner, E.M. (2009). **Stigma, negative attitudes and discrimination towards mental illness within the nursing profession: a review of the literatur*e.*** Journal of psychiatric and mental Health Nursing (16): 558-567

Sarafis, P., Rouski, E., Tsounis, A., Malliarou. M., Lahana, L., Bamidis, P., Niakas, D. and Papastavron, E.(2016). **Mental Health in Greece.** Available from: https://www.ncbi.nlm.nih.gov/pubmed/27708546 Accessed on 10/07/2017

Saunders, M. N. K., Lewis, P., and Thornhill, A. (2000). **Research Methods for Business Student*s*** (3rd edition). Harlow: Financial Times Prentice Hall.

Seedat, S. and Stein, D. (2000). **Traum**a **and Stress disorder in women: a review in international clinical psychopharmacology.** Journal of mental health nursing. 15: 525-533

Semple, D., Smyth, R., Burns, J., Darjee, R. and Mcintosh, A (2006). **Oxford Handbook of Psychiatry.** New York**:** Oxford University Press. ISBN 0 19 85283 7

Sercu, C. and Ayala, R. (2015). **How does stigma influence mental health nursing identities*?*** 52 (1):307 – 316 Available from:

http;//www.sciencedirect.com/science/article/in/5002074891400203 Accessed on 12/02/2017

Shapard, L. and Brewer, E. and Clippard, L.F. (2004). **Age and Experience in mental health nurses**. 3 (2): 15 -337-358

Silva, E. C., Clark, J., W, T.,Wilson, Arrington, P and Nkabyo, G. (2008). **Stress at Work: Membership Workforce Study.** Washington: National Association of Social Workers.

Stuart, G. W and Luraia M.T. (2005). **Principles and Practice of Psychiatric nursing** (8th edition). Lois Missouri: Mosby. ISBN- 10: 0-323-02608-7.

Su, M. H. (2008). **Emotion Regulation in the Work place of Nurses**. National Tapei University of Technology Institute of Commerce Automation and Management.

Teresa, J. Bhat, M. (2013). **A descriptive Study on stress and coping of nurses.** 3(1): 10-18 Available from: www.iosrjournals.org Accessed on 6/2/2014

The Health and Safety Executive (HSE) (2002). **Facets of work stress**. Available from: http://www.hazards.org/stress/distressingfailure.htm Accessed on 12/2/2015

Totman, J., Hundt, G. L., Eearn, E., Paul, M. and Johnson, S. (2011). **Factors affecting Staff Morale on inpatient mental health wards in England: a qualitative investigation.** Available from: https://bmcpsychiatry.biomedcentral.com/articles/10.1186/1471-244x-11-68 Accessed on 20/05/2017

Treece, E. W, and Treece, J. W, (2002). **Element of Research in Nursing (**5th edition). St. Louis, Missouri: Mosby Company.

Tully, A. (2004). **Stress, sources of stress and ways of coping among mental health nursing students.** Journal of psychiatric and Mental Health Nursing. 11 (1): 43-47**.**

Tysona, P.,Pongruenghant, R., and Aggarwal, B. (2002. **Coping with Organisational Stress among hospital nurses in Southern Ontario.** International journal of Nursing Studies. 39. 453-459.

United Nations (2002). **Magnitude of Stress: 20th century disease**. Available from: http://link.springer.com/article/1023%2FA%3a1014375026332 Accessed on 15/02/2015

University of Pennsylvania School of Nursing (2004). **Shortage of nurses.** Available from: http://www.webcrawler.com/info.wbcrwl.301.18/search/web?q=pennsylvania+nursing+schools&ad.network=s&ad.keyword=pennsy Accessed on 10/12/2015

Vegsund, H., Innstrand, S. T., and Eilertsen, M. B. (2015). **Relationship between Social Support from workload, autonomy and work engagement among Nowegian nurses**. Available from: http://www.ehps.net/ehplindeex.php/contents/article Accessed on 10/08/2017

Verhaeghe, M. and Bracke, P. (2016). .**Associative Stigma among mental health professions: implications for Professional and Service User wellbeing**. Available from: http hsb.sagepub.com/content Accessed on 03/01/2017

Wang , C. (2016). **Relationship between social support and self efficacy in women psychiatrists.** Chinese Nursing Research, 2: 103-106

Weller, B. (2009). **Bailiere's Nurses' Dictionary: for nurses and health care workers**. London: Baillliere Tindall ISBN 978-0-7020-3234-9

Wickett , D., Mcutcheon, H.and Long, L. (2003). **An Australian perspective**. Journal of adv. Nursing. 43: 343 - 345

White, A. R. (2006). **Perceive**d **Stressors, Coping Strategies and Burnout pertaining to psychiatric Nurses.** Available from: http://commons.emich.edu/thesis Accessed on 8/02/14

William, K. (2014). **Achieving safe- Staffing victory: Mandating a one to one nurse-to-patien**t Available from: http:// Journals./www.com/ajouline/full text 114 (10): 15 Accessed on 29/12.2015

World Health Organization (WHO). (2006)**. Mental Health: New Understanding.** New Hope: Geneva**.** Available from: http://www.who.int/whr/2001/en/whr01_en.pdf Accessed on 10/03/ 2014.

Yada, H., Omoni, H., Abe, H. and Katoh, T. (2014). **Differences in job stress experienced by female s and male Japanese**. Available from: https://www.research gate.net/publication/262845965 Accessed on 02/03/2017

Zaki, R. A. (2016). **Job Stress and Efficacy among Psychiatric Nursing Working in Mental Health Hospitals at Cairo, Egypt** 7 (20): 103 – 113 Available from: www.uste.org Accessed on 04/03/2017

Zaghloul, A. A. (2008). **Public Health Association.** The Journal of Egyptian public health association 83 (3): 224

APPENDIX 1

INFORMATION SHEET FOR RESPONDENTS

TITLE OF STUDY: Factors associated with Stress among Mental Health Nurses in Lusaka and Ndola.

INTRODUCTION

My name is Beatrice Chisashi Mwansa; a student of Masters of Science in Nursing at the University of Zambia who is kindly requesting for your participation in the research of study mentioned above. Your participation in this study is entirely voluntary. You may choose to participate or not. You are allowed to withdraw from the study at any time or seek clarification without any penalty whatsoever. No monetary favors will be given in exchange for information obtained. However, I hope that the results of the study will help in improving the working conditions for mental health nurses and consequently care of patients. Furthermore, the information which will be obtained will help generate data that can be used as a basis for subsequent studies as well as policy makers.

If you are willing to participate, you will be asked to sign a consent form.

PURPOSE OF THE STUDY

The study will explore factors associated with Work Related Stress among Mental Health Nurses in Lusaka and Ndola. The findings of the study are intended to help mental health nurses to identify factors that may contribute to stress in their work places. The generated data of the study will also help by informing policy makers about staff management, manpower and development by addressing the problems based on scientific grounds. This consequently may benefit the society as a whole as they will be attended to by mental health nurses who are mentally health with good attitudes towards the patients and the community, as the saying goes “there is no health without mental health”.

PARTICIPATION

If you agree to participate in the study and upon signing the consent, you will be interviewed with a use of a questionnaire as a guide. The questionnaire consists of section A with five (5) questions on demographic information; the other questions with 20 questions are on stress. You may take about 10 to 15 minutes to answer the questions.

RISKS AND DISCOMFORTS

This study hopes not to pose any risk of harm to you as a result of participation in this study though part of your time will be utilized to answer some questions. If you need further discussion, it will be offered to help you understand the topic more.

CONFIDENTIALITY

Your research records and any information you will give will be kept confidentially. Confidentiality will be upheld by maintaining anonymity of clients and using code numbers on the questionnaires and not the names except for the consent only. This means you will be identified by a number and not your name. The excellence in Research Ethics or the School of Medicine may review your records again but this will be done with confidentiality. You are kindly requested to answer all questions in the questionnaire as sincerely as you can. Thank you for taking time to read this information sheet. If you consent to be part of the study, please complete the attached consent

Should you require any further information regarding the study or your rights as a

study participant, you are free to contact the following:

1. The investigator, Beatrice Chisashi Mwansa, School of Medicine, University of Zambia, Telephone number 097 9 875574

2. The Head of Department, University of Zambia, School of Medicine, Department of Nursing Sciences, P.O.Box 50110, Lusaka. Telephone Number - Cell: 0979 093 045.

3. The Chairman, Research Ethics Committee, University of Zambia. P.O. Box 50110, Lusaka. Phone no. 260- 1- 256067

APPENDIX 11

INFORMED CONSENT FORM

Consent to participate in a research on factors associated with Work Related Stress among Mental Health Nurses in Lusaka and Ndola. I have read and understood the purpose, the benefits, risks and confidentiality of the study. I further understand that if l agree to take part in this study, l can withdraw at any time without having to give an explanation and that taking part in this study is purely voluntary.

Kindly indicate by signing at the end of this information your willingness to participate in the study.

I_____ agree to take part in this study

(Names)

Participant's signature: _____ Date: _____

Witness (Researcher) signature: _____ Date: _____

APPENDIX 111 DATA COLLECTION TOOL

THE UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF NURSING SCIENCES

Devilliers, Carson, and Leary (DCL) Stress Scale – Factors associated with stress among mental health nurses in Lusaka and Ndola Districts

Structured interview :

Place of interview **:**

Name of interviewer :

Serial number **:**

INSTRUCTIONS FOR THE INTERVIEWER

1. Self introduction

2. Explain the reason for the interview

3. Confidentiality and anonymity assured

4. No names to be written on the interview schedule

5. Choose and circle the most appropriate response to the question

6. Encourage the participant to ask questions before or at the end of the interview

7. Thank the participant at the end of the interview

SECTION A: DEMOGRAPHIC DATA

1) SEX

A; Male

B; Female

2) Marital Status

A; Single

B; Married

3) **Religion**;

A; No religion

B; Christian

C; Buddhist

D; Muslim or Islam

E; Others

4**) Age;** Indicate in the box provided

5) **Years of Experience**; write in the box provided

6) **Academic profession;**

A; Enrolled Mental Health Nurse

B; Registered Mental Health Nurse

MORDIFIED DCL STRESS SCALE **OFFICIAL**

Devilliers, Carson, and Leary (DCL) Stress Scale

The following items have all been found to be potential sources of pressure or stress at work. Pressure/stress can be understood as problems you find difficult to cope with, resulting in you feeling worried or anxious. Please work through the questionnaire carefully; circling the number next to each item which best indicates the extent to which each item causes you stress. Be sure to answer every item.

0 = This activity causes me no stress

1 = This activity causes me a little stress

2 = This activity causes me quite a bit of stress

3 = I feel very stressed by this activity

4 = I feel extremely stressed by this activity

How much stress does each of the following activities cause you?

The following statements address issues in dealing with patients who are unpredictable

1

Having to deal with disturbed and unpredictable patients ------ 0 1 2 3 4

2

Inadequate security measures on Wards/units -------- 0 1 2 3 4

3

Dealing with physical and verbal abuse from patients or others -------- 0 1 2 3 4

4

Having to deal with potentially suicidal patients ------ 0 1 2 3 4

The following Statements address Conflicts among professionals

5

Conflicts not being settled ------- 0 1 2 3 4

Within the organization

6

Having to deal with colleagues ------- 0 1 2 3 4

who do not do their share of the

workload

7

Difficulty in working with ------- 0 1 2 3 4

Particular colleagues

8

Dealing with disagreements within the

team about patient's treatment -------- 0 1 2 3 4

The following are statements on Shortage of Nurses

9

Having to meet the demands of ---------- 0 1 2 3 4

too many patients

10

Knowing that individual patient -------- 0 1 2 3 4

Care is being sacrificed due to

Lack of staff

11

Having too little time to plan and -------- 0 1 2 3 4

Evaluate treatment

12

Inadequate staffing coverage in -------- 0 1 2 3 4

Potentially dangerous situations

(**The following are statements on Social Support**

13

Not being notified of changes ------- 0 1 2 3 4

Before they occur

14

Lack of positive feedback ------- 0 1 2 3 4

From supervisors

15

Lack of consultation from -------- 0 1 2 3 4

Management about influential

Structural changes

16

Lack of interactions with relatives -------- 0 1 2 3 4

And friends

The following are Statements on Stigma

17

Community perceives mental health ------- 0 1 2 3 4

Nurses as evil people

18

General nurses believe they are more -------- 0 1 2 3 4

Knowledgeable in health matters than

Mental health nurses

19

The idea than l am a mental health nurse ------- 0 1 2 3 4

20

Caring for mentally ill patients makes

Mental health nurses mentally unhealthy -------- 0 1 2 3 4

End of the interview.

Thank you for your co-operation and time.

MH/101/23/10/1

THE NATIONAL HEALTH RESEARCH AUTHORITY
C/O Ministry of Health
Haile Selaisse Avenue,
Ndeke House
P.O. Box 30205
LUSAKA

8th June 2016

Ms. Beatrice Mwansa
P. O. Box 33794
Lusaka

Dear Ms. Mwansa

Re: Request for Authority to Conduct Research

The National Health Research Authority is in receipt of your request for authority to conduct research titled **"Factors associated with work related stress among Mental Health Nurses in Lusaka and Ndola."**

I wish to inform you that following submission of your request to the Authority, our review of the same and in view of the ethical clearance, this study has been approved to carry out the above mentioned exercise on condition that:

1. The relevant Provincial and District Medical Officers where the study is being conducted are fully appraised;
2. Progress updates are provided to NHRA quarterly from the date of commencement of the study;
3. The final study report is cleared by the NHRA before any publication or dissemination within or outside the country;
4. After clearance for publication or dissemination by the NHRA, the final study report is shared with all relevant Provincial and District Directors of Health where the study was being conducted, and all key respondents.

Yours sincerely,

Dr. P. Chanda-Kapata
For/Director
National Health Research Authority

THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE

DEPARTMENT OF NURSING SCIENCES

Telephone: 252641
Telegrams: **UNZA**

P.O Box 50110
Lusaka

23rd May, 2016.

The Director,
Ndola Central Hospital,
Ndola.

Dear Sir/Madam,

RE: REQUEST FOR PERMISSION TO CARRY OUT A RESEARCH STUDY

Beatrice Chisashi Mwansa is a current masters Nursing Student at the University of Zambia, School of Medicine in the Department of Nursing Sciences.

The student is required to carry out a research study in partial fulfillment for the Master of Science Degree in Nursing. Her research title is **"Factors Associated with Work related Stress among Mental Health Nurses in Lusaka and Ndola"**. She would like to interview mental health nurses at Ndola Central Hospital Psychiatric Wing.

The purpose of writing is to request your office to allow the student to conduct the research at your institution.

Your support is highly appreciated.

Yours Faithfully,

Dr. Ionia Mwape
LECTURER /SUPERVISOR

Cc: Dean, School of Medicine
Head, Department of Nursing Sciences

REPUBLIC OF ZAMBIA

All correspondence should be addressed to the
Senior Medical Superintendent
Ndola Central Hospital
Postal Agency
NDOLA

Telephone: 611585-9
Fax: 612204
E-mail: *nch @ zammet.zm*

MINISTRY OF HEALTH
NDOLA CENTRAL HOSPITAL

9th June 2016

Ms. Beatrice Chisashi Mwansa
University of Zambia
LUSAKA

Dear Ms. Mwansa

RE: ACADEMIC RESEARCH

Reference is made to your letter regarding the above subject matter.

Iam pleased to inform you that Management has no objection for you to come and do your research titled " Factors Associated with Work Place Stress Among Mental Health Nurses in Lusaka and Ndola".

While at this institution, you will not be entitled to any salary or accommodation and you will also be expected to abide by Ndola Central Hospital Disciplinary Code and Regulations.

You are kindly advisedto report to Human Resources Department as soon as you arrive at the hospital.

Yours sincerely
NDOLA CENTRAL HOSPITAL

CHIPO C.S.SIKE
SENIOR HUMAN RESOURCES MANAGEMENT OFFICER
For/ SENIOR MEDICAL SUPERINTENDENT

CC: Senior Medical Superintendent
Human Resources – Training

All correspondence should be addressed to the District Medical Officer

Tel: +260-211-235554
Fax: +260-211236429

In reply please quote

No:.....

REPUBLIC OF ZAMBIA
MINISTRY OF HEALTH

LUSAKA DISTRICT HEALTH OFFICE
P.O.BOX 50827
LUSAKA

16th June 2016

Beatrice C. Mwansa (Ms)
University of Zambia
School of Medicine
Department of Nursing Sciences
P. O. Box 50110
LUSAKA

Dear Ms. Mwansa

RE: AUTHORITY TO CONDUCT RESEARCH IN LUSAKA DISTRICT

We are in receipt of your letter over the above subject.

Please be informed that Lusaka District Health Office has no objection for you to conduct research on **"Factors associated with work related stress among Mental Health Nurses in Lusaka"** for academic purposes only.

Please ensure that a copy of the summary of findings is also provided to Lusaka District Health Office at the end of the study.

By copy of this letter, the In-Charges for Chelstone, Chilenje, Kabwata, Railway, Matero Ref and Prisons Health Centres are herewith informed.

Yours sincerely,

Dr. Lendy Kasanda
ASSISTANT PRINCIPAL CLINICAL CARE OFFICER
For/DISTRICT MEDICAL OFFICER

C.C: The In-charges: Chelstone, Chilenje, Kabwata, Railway, Matero Ref and Prisons Health Centres
C.C: The Lecturer/Supervisor: Dr. Lonia Mwape