UNIVERSTIY OF CAPE COAST

PSYCHOLOGICAL DISTRESS AND SOCIAL SUPPORT ON QUALITY OF LIFE OF NURSES OF HIV/AIDS PATIENTS IN THE CAPE COAST METROPOLIS

DOMINIC KOBINA FORSON

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BY

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Thesis submitted to the Department of Education and Psychology of the Faculty of Educational Foundations of the College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Philosophy degree in Clinical Health Psychology

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: ……..… Date: ……

Name: Dominic Kobina Forson

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature: …….. Date:…….

Name: Prof. Frederick Ocansey

Co-Supervisor's Signature: …….. Date: ……..

Name: Rev. Fr. Dr. Anthony Nkyi

ABSTRACT

The purpose of the study was to ascertain the relationship psychological distress and social support have on the quality of life of nurses who take care of HIV/AIDS patients in the Cape Coast Metropolis of Ghana. One hundred and five (105) respondents were recruited by purpose and census to participate. Depression, Anxiety and Stress variables were screened with DASS-21. Social Support was measured with the Multidimensional Scale of Perceived Social Support while Quality of Life was also measured using WHOQOL-Bref. Seventy-four point three per cent (74.3%) of the respondents were females. Age ranged from 18 – 50, 81 – 25 recorded the highest frequency (57.1%). Seventy-seven point one per cent (77.1%) were never married, and forty-two point nine per cent (42.9%) were not satisfied with their income level. Anxiety and depression were found to have negative correlation with quality of life with anxiety: $r=-0.253^*$, $p<0.05$, and depression: $r=-0.260^*$, $p<0.05$ significant values. Stress was however found to have no significant relationship with quality of life ($r=-0.180$, $p>0.05$) Social support was found to have positive correlation with quality of life ($r=0.503^*$, $p<0.05$). Demographic variables were found to have no relationship with quality of life ($r=0.33$, 0.70, 0.77, 0.67 and 0.56, $p>0.05$ for gender, age, marital status, type of nursing and income level satisfaction respectively). Finally, social support moderated the relationship between psychological distress and quality of life; change in $R^2=3.4\%$ ($0.034x100$; $p<0.05$). It is therefore suggested to policy makers to strengthen the social support of nurses caring for PLWHA. Implications for clinical practice and further studies are discussed.

KEY WORDS

Nurses

Persons Living with HIV/AIDS

Social Support

Psychological distress

Quality of life

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DEDICATION

To my guardian angels who double as my grandparents, Dr. Francis Albert Kobina Saighoe and Mrs Comfort Saighoe.

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LIST OF ABBREVIATIONS

HIV	Human Immunodeficiency Virus
AIDS	Acquired Immune Deficiency Syndrome
QOL	Quality of Life
WHOQOLS	World Health Organization Quality of Life Scale
DASS	Depression Anxiety Stress Scale
MSPSS	Multidimensional Scale of Perceived Social Support
CCTH	Cape Coast Teaching Hospital
UCC	University of Cape Coast
PLWHA	People Living With HIV/AIDS
WHO	World Health Organization
UNAIDS	United Nations AIDS Programme
STDs	Sexual Transmitted Diseases
ART	Anti-Retroviral Therapy
UK	United Kingdom
USA	United State of America
SSA	Sub-Sahara Africa
HRQOL	Health-Related Quality of Life
GHS	Ghana Health Service
MDGs	Millennium Development Goals
GSS	Ghana Statistical Service

CHAPTER ONE

INTRODUCTION

This chapter includes background to the study, statement of the problem, purpose of the study, research hypothesis, significance of the study, delimitations of the study, limitations of the study, definition of terms and organization of the study.

Background to the Study

I observed this true story at the Cape Coast Teaching Hospital (CCTH) during my National Service period in 2013 at the said referral health facility: Meet Ms AR, an avid nurse at the Public Health Unit of CCTH. She is very dedicated, hardworking and compassionate with her work as HIV/AIDS healthcare provider. On one of her routine duty calls she had a needle-prick while attending to a patient living with HIV. Fear suddenly gripped her and almost broke down in tears in the presence of her patient. She had to excuse herself into an empty consulting room and cried her heart out. After a brief while, she made calls to invite her Nurse-in-charge and few other co-workers to the room and informed them of her situation. She was advised to take Post-Exposure Prophylaxis (PEP) for one month despite the fact that she was two (2) months pregnant. The pharmacodynamics of the PEP gave her excruciating bodily pain experience as she described as “completely uncomfortable” amidst horrible nightmares, diarrhoea, severe headaches, dizziness, nausea, sleeplessness, lack of appetite for food, anergia, to mention but few. But for the support from her family and co-workers who voluntarily took over most of her

duties at work and eventually was granted sick-leave to complete her medication; Ms AR would have had a tough time going through her situation alone – endangering her life to HIV infection through her duty call as an HIV/AIDS healthcare provider.

According to the Joint United Nations Programme on HIV and AIDS (UNAIDS) (2018), the 2017 Global HIV Report revealed that 36.9 million people were living with HIV in 2017 globally as compared to an estimate global prevalence of 36.3 million at the end of 2016 and 36.7 in 2015 (WHO, 2016; UNAIDS, 2018). Out of the 2017 global prevalence, 35.1 million of them were adults while 1.8 million of the remaining was children below 15 years. The same report shows that in 2017, 1.8 million people became newly infected – indicating a 47% reduction in new infection since the peak in 1996, and a 16% estimated declining rate among adult from 1.9 million to 1.6 million people as well as 35% decline rate for new infections among children since 2010.

AIDS-related illnesses remain the leading cause of death among women of reproductive age (15–49 years) globally, and they are the second leading cause of death for young women aged 15–24 years in Africa (UNAIDS, 2017). In 2017, 940,000 people died from AIDS-related illness, indicating a 51% reduction since its peak in 2004 which recorded 1.9 million deaths in 2004 and 1.4 million deaths in 2010 (UNAIDS, 2018). The annual number of deaths in South Africa due to AIDS was expected to peak at about 487,000 deaths by the year 2008, and it is expected that by the year 2020, 9.31 million people will have died from AIDS-related causes (Rehle & Shisana, 2003). The UNAIDS (2018) report also indicate that 77.3 million people have become infected with HIV since the start of the epidemic and 35.4 million people have died from

AIDS-related illness since the start of the epidemic. The data also indicates that 21.7 million people were accessing antiretroviral therapy – an increase of 2.3 million since 2016 and up from 8 million in 2010. The report further indicates that 59% of all people living with HIV were accessing therapy – out of which 59% of them were adults aged 15 years and older while 52% were children aged 0 – 14 years.

The world has invested hugely into the fight against this life-threatening infection. It is reported that at the end of 2017, US $21.3 billion was available for AIDS response in low- and middle-income countries (UNAIDS, 2018). The report added that around 56% of the total resources for HIV in low- and middle-income countries in 2017 were from domestic sources. UNAIDS (2018) estimates that US$ 26.2 billion will be required for the AIDS response in 2020.

In Sub-Saharan Africa, an estimated number of PLWHA at the end of 2015 was about 25.8 million, accounting for about 70% of the global burden. The sub region also recorded 1.4 million new infections (UNAIDS 2016). In Ghana, the first case of the disease was detected in 1986 in Accra and since then, it continues to spread throughout the country (Ulasi et al., 2009). The highest national prevalence of the disease was found in the Eastern Region. Initially, this high prevalence was linked to indigenes who had come back to Ghana after being infected in neighbouring countries notably, Cote d'Ivoire (Ulasi et al., 2009).

In 2017, the number of People Living with HIV/AIDS (PLWHA) in Western and Central Africa were 6.1 million whereas newly HIV infected people for the same year in Western and Central Africa were 370,000 (UNAIDS, 2018). Out of the new infection data, 310,000 of them were adults

of 15 years and above and 67,000 were children between and 0 – 14 years. The same UNAIDS report indicates that in the year 2017, 2.4 million PLWHA were accessing ART; while 280,000 AIDS-related deaths were recorded for the Western and Central African regions for the same year. The 2017 HIV sentinel survey in Ghana also shows that 2.1% was the median prevalence in Ghana in 2017; and new infections for the same year rose to 1.5% from 1.1% in 2016.

These records tell us that HIV/AIDS has and is costing the world a great deal of efforts, resources and lives to fight its growth. In the world's quest to realise a total reduction, if not elimination, of the HIV/AIDS menace however, attention should also be paid to HIV/AIDS healthcare providers, who are key stakeholders in the fight against the spread of the Human Immunodeficiency Virus. According to Hall (2004), there are inherent psychological job distresses in caring for People Living with HIV/AIDS (PLWHA). Besides the responsibility of taking care of ill patients, there are physical challenges (providing patient care) and psychological challenges (e.g. coping with human suffering and the death of patients), involved in the profession (Hall, 2004). The impact of HIV/AIDS on the nursing and midwifery workforce has been multi-faceted and complex and, without appropriate intervention, will affect the development of health services very negatively. Apart from an increased workload and high needs of acute care HIV patients, nurses and midwives have to cope with the direct effects of HIV on the nursing and midwifery staff, such as increased illness and deaths. The impact of HIV/AIDS creates complex and self-reinforcing negative influences on the health workforce (Hall, 2004).

The heavy workload fuels burnout and frustration, possibly leading to increased migration. Fear of occupational exposure may be reducing entrants

into the workforce, as well as encouraging current members to leave. Burnout associated with workload and the intensity of care required is suspected to cause increased absenteeism, and infection among health workers has resulted in significant illness and deaths among the very people tasked with assisting the general population to fight the epidemic (Munjanja, Kibuka, & Dovlo, 2005). Furthermore, in Ghana, the AIDS epidemic is such that the numbers of fatalities, the exposure to death and dying, and the stigma attached to the disease may bring about additional challenges in the work environment. Nurses might also be infected themselves, which could add to the complexities of health care provision for HIV/AIDS patients (Hall, 2004).

The first time Acquired Immune Deficiency Syndrome (AIDS) got recognized worldwide was in the early 1980's. AIDS has since then been the most feared infection of modern time (Famoroti, Fernandes & Chima 2013). Today, HIV/AIDS is a global menace and exists in over 150 countries (Champoux & Lawrence, 2004). In Tanzania, there are about 1.6 million people living with HIV/AIDS (Kaijage &Wexler, 2010). The UNAIDS (2015b) in a country progress report about Ghana indicated that 270,000 (230, 000- 330, 000) people were living with HIV/AIDS in Ghana with a prevalence rate of 1.6% (1.3%-1.9%) as in 2015. A study done in Zimbabwe by Campbell, Scott, Madenhire, Nyamukapa, & Gregson (2011) noticed that nurses in poor Zimbabwean Health Care Centres feel frustration over severe resource shortages that needs be solved in order to enable nurses to proceed delivering high quality HIV and ART (antiretroviral therapy) care to those in need in the sub-Saharan Africa. Studies have found that many nurses experience stress,

fatigue and burnout symptoms linked to the care of patients living with HIV (Smit, 2005).

HIV targets and weakens the infected person's immune system makes it prone to lots of other opportunistic infections. As the virus destroys and weakens the function of immune cells, infected people increasingly develop a lack of immune cells. That means that the affected body cannot fight against different infections or diseases. The most advanced stage of HIV is AIDS, which can take from 2 to 15 years to develop depending on the individual characteristics (WHO, 2014). Pratt and FRCN, (2003) identifies sexual transmission, injecting drug use, mother to child, iatrogenic transmission, and occupational exposure as the main modes of transmission of HIV.

To know of one's infection status of HIV, blood test analysis must be done (Champoux & Lawrence, 2004). The test should be voluntary and the individual should know that he or she has the right to decline. It is not acceptable to force the individual to test them since it intrudes on human rights (WHO, 2014). The blood test analysis identifies the antibody of the virus. The lifelong infection is presented by both asymptomatic and symptomatic illness. The symptom of HIV varies; in the early stage, people experience flu-like symptoms; this is the body's way to respond the presence of the virus. If the person living with HIV does not take Anti-Retroviral Treatment (ART), the virus will eventually weaken the immune system (UNAIDS, 2013). The symptoms of AIDS are fever, rash, malaise, aseptic meningitis, lymphadenopathy, arthralgias and hepatosplenomegaly (Champoux & Lawrence, 2004). AIDS can also be diagnosed if HIV develops to one or more of a specific disease like cancer or opportunistic infections such as cryptococcal

meningitis or retinitis (Nilsson & Berg, 2015).

All people can get affected by HIV/AIDS (Libov, 2011). Previous in the 1980´s the "infected groups" was homo- and bisexual males but also injecting drug users. Other groups who also were infected at first were the people suffering from haemophilia and patients cared with blood transfusions. HIV is transmitted from human to human in three ways: sexually, perinatal and by exposure to contaminated blood or body fluids. A study done in South Africa (Ncama & Uys, 2003), investigates the fear of contracting HIV/AIDS among trauma nurses. It describes that the nurses who work in hospitals are the most exposed group. Their results reclaimed that fear is still present among nurses. The main fears are needle stick injuries and the accidental exposure with blood and body fluids and the most common feelings among nurses are anxiety and worries caring for patients with HIV/AIDS, which reminds them of the risk of getting infected. Some nurses ignore the risks while working and some have concerns about the unsafe protective materials.

The best way to decrease the spread of HIV infection is to limit the exposure. To limit exposure, the patient might be aware of the usage of condom, ART, testing and counselling for HIV and STD (WHO, 2014). ART both slow the disease progression and decreases the risk of transmission (Kahn et al., 2013). The shortage of the vaccine or the treatment is a big concern and influences the nurse's work (Osemwenkha & Fadiyimu, 2007). An essential part of health care is prevention of infections to health care workers (Jackson, Lowton & Griffiths, 2014). One finding in the study was that nurses who work close to infected environment11s were introduced with infection prevention policy and the nurses had a desire to avoid recognized dirt and bacteria. A study

conducted by Quinn and Henneberger (2015), about prevention of infectious diseases among healthcare workers, describe how to prioritize the prevention by using standard precautions to reduce transmission, which includes environmental cleaning.

Nurses play a major role in maintaining health status of HIV/AIDS patients and also in achieving the health-related targets of the country (Tawfik, 2006). The various cadres in the health system make nurses an important health workforce from the community to higher levels in the healthcare delivery system. The auxiliary nurse, midwives and public health nurses are the major players in the community. Nurses comprise the largest group of healthcare workers. Most nurses work directly with patients and their families. They are the primary point of contact between the patient and the world of health care, both at the bedside and in out-patient settings. Nurses perform frequent patient evaluations, including monitoring and tracking vital signs, performing procedures such as intravenous placement, phlebotomy and administering medications. Nurses are much more regularly in contact with patients than physicians and usually the first to notice problems or raise concerns about patient progress. They thus have a critical role in health care delivery system (Suresh, 2013).

Nurses are one of the most diverse and largest workforces in the health care system. The word “nurse” originated from Latin word “Nutricius” which means someone who nourishes, fosters and protects. The role of nurses in the health care system is expanding and changing. Their role is not just limited to institutional care but also involves delivery of services at various levels of the health care system. The nurses are one of the strongest pillars of the health care

delivery system in providing safe, affordable and quality services to the people. Mortality, morbidity and disability reduction, health promotion through healthy lifestyles are positive health outcomes in which nurses have a pivotal role (Suresh, 2013).

The World Bank has estimated that a country with a stable 5 per cent adult HIV prevalence rate can expect that each year between 0.5 and 1 per cent of its health-care providers will die from AIDS. In contrast, a country with 30 per cent prevalence would lose 3-7 per cent of its health workers to the HIV/AIDS epidemic (World Bank, 1999). A study done by Shisana et al. (2003), shows that 0.9% to 33.3% of nurses died as a result of HIV/AIDS (through occupational hazards); this could heighten the stress and depression level of the remaining nurses and may adversely affect their quality of life if relevant supports are not provided. HIV/AIDS is found to increase the workload of nurses because of a higher number of patients with AIDS-related diseases, the comprehensive time-consuming care that is needed by many of these patients and the lack of support that is available to them. The secrecy surrounding the disease reduces their productivity, confront them with ethical issues and hinder them in curbing the further spreading of HIV/AIDS. In Lusaka, Zambia, for example, HIV prevalence was 39 per cent among mid-wives and 44 per cent among nurses in 1991-1992 (Whiteside, 2002). Health workers are also susceptible to opportunistic infections that often accompany HIV/AIDS. Studies conducted in South Africa between 1991 and 1998 documented a five-fold increase in the tuberculosis rate among staff. In Zambia, pilot surveys found that mortality among nurses had increased 13-fold between 1980 and 1991, to 2.7 per cent (Buvé and others, 1994).

Nurses can also be infected with the disease, which will ultimately lead to increased absenteeism, stress and lower performance among sufferers and increased workloads and emotional discontent for the remaining workforce (Hall, 2004). According to Tawfik (2006), absenteeism and illness among nurses is a major issue. Tawfik further indicate that to gain insight into the scale of need for training more staff and improve conditions of services for nurses to carry out HIV/AIDS service tasks, information was gathered on the number of staff leaving the health services, by cadre, in a Zambia HIV/AIDS workforce study. Losses were greatest for midwives, the cadre in highest demand and shortest supply. In the Lusaka hospitals and clinics, loss of midwives and nurses was particularly great, with Lusaka Trust Hospital experiencing a 60% loss rate of midwives. A key factor contributing to nursing shortages in Africa has been out-migration (emigration) which, though a long-existing phenomenon, has recently become more important as the numbers have increased significantly (Huddart, Furth & Lyons, 2004). Information received from regulatory bodies in ECSA for this paper indicates significant nurse migration continues to occur to the United Kingdom (UK), United States of America (USA), Canada and South Africa. The "top 20" source countries of nurses into the UK include nine Sub-Sahara Africa (SSA) countries and the trend shows that the number of new nurses registered in the UK in 2002-2003 was three times that registered in 1998; that is, within a short four-year period of time. The principal reason for staff losses is salary, with a large number leaving Zambia for jobs in the United Kingdom and the United States of America (Munjanja, Kibuka & Dovlo, 2005).

A key factor contributing to nursing shortages in Africa has been out-migration (emigration) which, though a long-existing phenomenon, has recently

become more important as the numbers have increased significantly (Buchan & Dovlo, 2004). Information received from regulatory bodies in ECSA for this paper indicates significant nurse migration continues to occur to the United Kingdom (UK), United States of America (USA), Canada and South Africa. The "top 20" source countries of nurses into the UK include nine SSA countries and the trend shows that the number of new nurses registered in the UK in 2002-2003 was three times that registered in 1998; that is, within a short four-year period of time. The number of Ghanaian overseas-trained nurses and registered in the UK (excluding those coming from the European Union) from the year 1998 to 2003 were: 40 nurses between 1998 – 1999, 74 nurses between 1999 – 2000, 140 nurses between 2000 – 2001, 195 nurses between 2001 – 2002, and 255 nurses between 2002 – 2003 (Buchan & Dovlo, 2004).

Rollout of antiretroviral therapy (ART) has been successfully initiated in many countries, but concerns have been raised about the ability to meet treatment needs in areas where there is a high prevalence of human immunodeficiency virus (HIV) infection/acquired immunodeficiency syndrome (AIDS) and where there are severe deficits in human-resource capacity. Many health care workers in resource-poor areas are experiencing burnout, struggling with external and internal stigma, failing to access HIV testing and treatment early, and subsequently becoming sick and dying of AIDS. Although the human-resource deficit is a well-recognized problem, little has been written about the programs that have been established to provide treatment for HIV infected health care workers (Uebel, Nash & Avalos, 2007).

The quality of care of AIDS patients may also suffer because caregivers fear contracting the disease. In a self-administered questionnaire survey among

nurses in a regional hospital in Hong Kong 95% of the nurses had experienced needlestick injury since joining the nursing profession (Tan & Yu, 1987). In the week prior to the survey, 15% of the nurses were injured by needlesticks. During a discussion on needle stick injuries in an October 2004 workshop on health worker safety in Cape Town, a show of hands indicated that nearly a quarter of the participants had experienced a needle stick injury during their careers as nurses, midwives or physicians. Only two of the six people had reported the injury. One of those two shared the frustrations she underwent as a result and how nothing tangible was done about the injury although that was a number of years back (ECSA Regional Health Community Secretariat, 2004). In Burkina Faso, a study found that health-care workers were afraid of contracting the HIV virus and that their fear had led to a decline in the quality of care (Burkina Faso National Committee to Combat HIV/AIDS and Sexually Transmitted Infections, 2003). Although the acute consequence of needle prick injury is usually a temporary disability, there is a serious risk of long-term repercussions which may result in permanent disability. Needle prick injury and cuts from sharp instruments account for 76% of occupational exposure to HIV among health care workers (McCray, 1986)

Infection with Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) have emerged much tensions and anxieties among the public and healthcare providers. In reality, the fear of being infected at workplaces has led to irrational and discriminatory treatment of people living with HIV/AIDS (Adebajo et al. 2003; Kermode et al. 2005). Such fear and many other anxieties induced disorders, coupled with stress and depression could have detrimental effect on the quality of life of these health

care professionals. It is therefore prudent to assess the tolling effect of the psychological distresses and the available social support on their quality of life of nurses caring for PLWHA. This will not only inform policy makers of these unattended issues but also aid them to put the right policies in place to safeguard the quality of life of nurses of HIV/AIDS.

Statement of the Problem

The HIV/AIDS epidemic has increased the demand for medical care worldwide. The need for care and treatment of HIV-related illnesses is rising rapidly. More people also need treatment for illnesses that have become widespread because of HIV/AIDS such as tuberculosis (Whiteside, 2000). Health service workers play an important role in the battle against HIV/AIDS by providing testing, care, and treatment for people living with HIV/AIDS (PLWHA) (Li et al, 2007; Unger, Welz, & Haran, 2002). Nurses are some of the most diverse and largest workforces in the health care system. Nurses face significant occupational challenges such as work-related infection risks, increased demand for services, inefficiency in the HIV care financing system, and the lack of appropriate training for HIV/AIDS treatment (Unger, Welz, & Haran, 2002). The HIV pandemic also indirectly affects the nurses in terms of increasing physical and emotional stress for nurses working with PLWHA (Marchal, De Brouwere, & Kegels, 2005).

Nurses who have physical contact with PLWHA may experience avoidance from their social connections and families (Bennett, 1992a; Bennett, 1992b), which may be connected with their views of being at risk because of the level of anxiety about contracting HIV/AIDS. It is on acceptable fact that HIV/AIDS has been reported to be high among health workers dealing with

patients to the extent that some of the nurses caring for PLWHA get infected and die of the virus (Whiteside, 2002). This has led to an increased in absenteeism, and job quitting among nurses working with people living with HIV/AIDS (Tawfik & Kinoti, 2006). This drop out and quitting of the nursing job by some nurses could contribute to Ghana's widening deficit in the nurses-patient ratio of 22 nurses for every 10,000 people as against the ideal 40 nurses to 10,000 patients by WHO ("Nursing schools given quotas - Admissions to reduce," 2017). Even though Ghana Registered Nurses and Midwives Association revealed in June 2017 that Ghana will need not less than 38,000 nurses and midwives to bridge the nurse-patient ratio, enrolment of people into the nursing profession to augment the widening deficit number in nurses-patient ratio has also seen a significant reduction of about 22 per cent nationwide ("Nursing schools given quotas - Admissions to reduce," 2017). In 2016, 7,335 students were admitted to the various nursing training institutions, but the number was reduced to 5,737 in 2017 ("Nursing schools given quotas - Admissions to reduce," 2017). In Cape Coast for instance, the number of enrolment for Cape Coast Nursing Training College reduced from 229 in 2016 to 91 in 2017 while that of University of Cape Coast was reduced from 100 in 2016 to 75 in 2017 ("Nursing schools given quotas - Admissions to reduce," 2017). It has also been observed that not all the successfully trained nurses who pass out every year get absorbed to the health care system to provide care and support for PLWHA.

In contrast, however, the number of new HIV infection in Cape Coast increased in 2017. A total of 608 new HIV infections had been recorded as at November 2017 against 498 new infection cases in 2016; an increment of 110

cases in 12 months (Annan, 2018). This inverse relation between the numbers of nurses and new infections makes the workload of nurses very high, especially for nurses who work in Cape Coast Teaching Hospital as a referral facility for the whole of central region and beyond, and further makes those who are already in the health care system susceptible to psychological distress in providing care and support for PLWHA.

There are varied literatures that support that nurses face significant psychological distress in caring for PLWHA (Bennett, 1992a; Bennett, 1992b; Tawfik & Kinoti, 2006; Whiteside, 2002). Psychological distress and social support among nurses of HIV/AIDS lacks research in Ghana, yet it remains a great concern in the overall health of these nurses. These psychological distresses are modifiable factors which when present compromise on the health-related quality of life (HRQOL) of nurses and could increase labour turn-over and or mortality among nurses of HIV/AIDS. It was therefore prudent to conduct research assessment on the available social support and the psychological distress on the quality of life of nurses caring for PLWHA to inform nurses and policy makers of the appropriate interventions to safeguard nurses who render healthcare services to curtail the HIV/AIDS menace in Cape Coast.

Purpose of the Study

The purpose of the study is to investigate the psychological distress associated with caring for HIV/AIDS patients and the perceived social support for nurses of HIV/AIDS and how they relate to their quality of life.

Specifically, the study sought to:

1. Ascertain the correlation between HIV/AIDS work related stress and perceived health-related quality of life among nurses of HIV/AIDS
2. Ascertain the correlation between HIV/AIDS work-related anxiety and perceived health-related quality of life among nurses of HIV/AIDS
3. Ascertain the correlation between HIV/AIDS work-related depression and perceived health-related quality of life among nurses of HIV/AIDS
4. Assess the moderation effect of social support between psychological distress and health-related quality of life among nurses of HIV/AIDS
5. Explore the relationship between the demographic variables on perceived health-related quality of life among nurses of HIV/AIDS
6. Assess the correlation between social support and Quality of life the nurses caring for PLWHA.

Hypotheses

Hypothesis is an educated conjecture about the logically developed relationship between two or more variables, expressed in the form of testable statements (Sekaran, 2003). It could also be described as a tentative and formal prediction about the relationship between two or more variables in the population being studied, and translates research questions into predictions of expected outcomes. The study sought to ascertain the following hypotheses:

1. Quality of life of nurses of HIV/AIDS have a negative correlation with stress
2. Quality of life of nurses of HIV/AIDS have a negative correlation with anxiety
3. Quality of life of nurses of HIV/AIDS have a negative correlation with depression

4. Qualities of life of nurses of HIV/AIDS have a positive correlation with social support.
5. There is a significant relationship between demographic variables and quality of life.
6. Social support will moderate psychological distress and quality of life of nurses of HIV/AIDS patients

Significance of the Study

The results of this study have a number of areas of practical usefulness that would help in strengthening the quality of care and the quality of life of nurses that provide care and support for PLWHA. The main emphasis was to help safeguard the quality of life of nurses caring for PLWHA through the assessment of the relationships among the psychological distress, social support and health-related quality of life of nurses caring for PLWHA in Cape Coast Metropolis.

The finding of the study would be helpful to health policy makers to institute social support packages for nurses who care for PLWHA to safeguard their quality of life by minimizing risks and providing support for affected nurses who are affected by risks involved in caring for PLWHA. The findings would also inform nurses of the risks involved in caring for PLWHA as well as the accessible social support services needed to safeguard their quality of life while working to improve the life of PLWHA. Again, as the study sought to improve the quality of life of nurses caring for PLWHA by improving their social support base, the quality of care for PLWHA is also likely to improve. Finally, the study also adds up to the existing literature and fills the gap of the

psychological distress and social support on quality of life of nurses of HIV/AIDS in Cape Coast.

Delimitation

The study was delimited to these variables—depression, stress, anxiety, social support and quality of life of nurses caring for HIV/AIDS patients. The study involved only nurses caring for HIV/AIDS patients in the Cape Coast Metropolis in two selected hospitals in Cape Coast; Cape Coast Teaching Hospital, and Cape Coast Metropolis Hospital. The study was focused on nurses in these selected facilities and also delimited to nurses who have taken care of HIV/AIDS patients for at least two weeks.

Limitation

The study adopted the quantitative research methodology, specifically, the correlational research design; and even though the results showed relationships among the variables studied, it did not establish causal effect among the variable. The study could therefore not attribute any causal reasons to the established relationships among the variables studied. Finally, the study was conducted in two selected hospitals in Cape Coast Metropolis; it therefore cannot be generalized to other hospitals outside cape coast metropolitan assembly.

Definition of Terms

The following are the operational definitions of some terms used in the study;

Nurse: A nurse is defined as an individual who has a master's degree, four-year Bachelor of Science degree, three-year or two-year diploma, and or a certificate in nursing, has a license to practice nursing, and is working

in a position requiring such qualifications. A minimum of six months of work within the profession is required.

Psychological Distress: This refers to the undifferentiated combinations of symptoms ranging from depression anxiety and stress, characterised by low sense of self-worth, loss of interest in pleasurable activities, sleep problems, and other negative physical reactions, e.g. heart palpitation, panic etc. resulting in functional disabilities and behavioural problems.

Person Living With HIV/AIDS (PLWHA): This refers to any individual who is 13 years old and above diagnosed of HIV/AIDS.

Social Support: The process of interaction in relationships which improves coping, esteem, belonging, and competence through actual or perceived exchange of physical or psychosocial resource, (Gottlieb, 2000. p.28)

HRQOL: This incorporates the measure of multidimensional domains of the physical, mental, emotional, and social functioning of an individual.

Organisation of the Study

The study was organised in five broad chapters. The first chapter discussed the Background of the study, statement of the problem, purpose of the study, objectives of the study, research hypothesis, significance of the study, delimitation, and limitation, definition of terms and organisation of the study. The second chapter addresses psychological distress with respect to depression, anxiety and stress, social support and quality of life. It further discusses the theoretical framework of the study and reviews empirical literature on the studied variables (i.e. psychological distress, social support and quality of life) as well as the conceptual framework of the study. The third chapter discusses the research methodological component of the study. The research design,

population, sample and sampling procedure, method of data collection, instruments used for analysing data to test the hypothesis of the study have well been discussed. The fourth chapter discusses in detail, the results of the study according to the research hypothesis. The fifth and final chapter summarises the study, provides conclusion, relevant recommendations and gives future direction of the study.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter reviews literature related to psychological distress, social supports and quality of life of nurses of HIV/AIDS patients. This chapter discusses psychological distress (depression, anxiety and stress), social support and quality of life of nurses caring for HIV/AIDS patients. Conceptual and Theoretical framework have been discussed in this chapter as well as empirical review related to this study.

Theoretical Framework

Eisenhart defined a theoretical framework as "a structure that guides research by relying on a formal theory, constructed by using an established, coherent explanation of phenomena and relationships" (1991, p. 205). The following theories and models were integrated to explain phenomena in the study:

Theoretical Contributions of Stress

General Adaptation Syndrome (Selye, 1936): Hans Selye defined stress as "the non-specific result of any demand upon the body, be the effect mental or somatic". General adaptation syndrome (GAS) is the predictable way the body responds to stress as described by Hans Selye (1907-1982). Hans Selye described three predictable stages the body uses to respond to stressors, called

General Adaptation Syndrome (GAS). The first stage is the alarm stage, which provides a burst of energy. In the second stage, known as the resistance

stage, the body attempts to resist or adapt to the stressor. The last stage is known as the exhaustion stage because energy is depleted.

Stages of General Adaptation Syndrome: During the alarm stage, the body responds to the distress signal sent to the hypothalamus with a burst of energy to help deal with the stressor. If you were walking at night and something jumped out from behind a tree, your hypothalamus would tell the pituitary gland to release glucocorticoids, which are hormones. In response, the adrenal glands release cortisol and adrenaline to help the body react. In addition to an increase in heart rate and breathing rate, blood glucose levels increase to boost energy. Once your body initially responded to the stress of whatever jumped out from behind the tree, it will continue to maintain a level or alertness to help fight or adapt to the stressor. This is called the resistance stage. The adrenal cortex continues to release glucocorticoids to help the body react to the stressor until the stress is resolved or the body can no longer resist. Deep energy reserves are used until the stressor is resolved or reserves are depleted. Because the body's energies are going to the stressor, the body is not able to fight off colds and flu during this time. If the stress continues long enough or intensely enough without resolution, exhaustion will set in when energy is depleted. Chronic stress increases the chance of illness even if it does not progress to the exhaustion stage. During the exhaustion stage, the body shuts down and cannot respond. The body is too weak to resist illness, muscles are weak, and blood pressure is high. Long-term stress can damage the hippocampus. The individual cannot function. Ignored, exhaustion can lead to illness.

The general adaptive syndrome is a natural bodily response to stressor. Nurses who care for PLWHA also experience this syndrome in the face of a

stressor. It is the duty of the autonomic nervous system to trigger such reaction per the interpretation of the receiver of the stressor.

The Stress-response theory (Mcewen, 2002): Stress may be defined as a nonspecific response to perceived environmental threats (called stressors). The stress response theory states that a particular environmental change (a demand or an event) may be perceived by one person as stressful and by another as benign. An examination is, for example, likely to be less stressful for a student who has mastered all homework assignments than it is for a student who waits to cram the night before the test. The generalized feeling of fear and apprehension associated with a stressor is called anxiety (Mifflin, 2016).

Anxiety is typically accompanied by activation of the sympathetic nervous system and increased physiological arousal, which causes rapid breathing, increased heart rate, sweating, and dilation of the pupils. Fight or flight. In the 1920s, Walter Cannon recognized that the autonomic nervous system is activated in response to stress and suggested that stress mobilizes the body's responses in readiness for either attacking (fight) or fleeing (flight) an enemy or threatening situation. Although such responses may have promoted survival when they evolved in human history, they are not productive given the longer periods of stress exposure common in modern life. Such enterprises as keeping a job, going to school, and playing on the soccer team require more complex responses.

Relational regulation theory (Lakey & Orehek, 2011): Relational regulation theory (RRT) was developed by Lakey and Orehek to explain perceived support's link to emotional and affective disturbance in adults and adolescents. The most relevant phenomena are described by diagnostic criteria for anxiety

and mood disorders, as well as self-report measures of anxiety, depression, and general psychological distress. These typically involve high negative affect and, often, low positive affect (Watson, Clark, & Carey, 1988). RRT applies to negative thoughts about the self, world, and future, given that depression and anxiety are strongly linked with such negative thoughts (Dozois & Beck, 2008). RRT also applies to behaviour associated with psychological distress (e.g., crying, support seeking, and drug taking)

Relational regulation theory (RRT) hypothesizes that main effects occur when people regulate their affect, thought, and action through ordinary yet affectively consequential conversations and shared activities, rather than through conversations about how to cope with stress. RRT was developed to explain perceived support's link to emotional and affective disturbance in adults and adolescents. The most relevant phenomena are described by diagnostic criteria for anxiety and mood disorders, as well as self-report measures of anxiety, depression, and general psychological dis-tress. These typically involve high negative affect and, often, low positive affect (Watson, Clark, & Carey, 1988). RRT applies to negative thoughts about the self, world, and future, given that depression and anxiety are strongly linked with such negative thoughts (Beck, 1967; Dozois & Beck, 2008). RRT also applies to behaviour associated with psychological distress (e.g., crying, support seeking, drug taking)

Psychodynamic theory of depression: The psychodynamic theory of depression was propounded by Sigmund Fraud in the early 20th century. It was widely accepted by Psychiatrist and Clinical psychologist as a plausible way to explain and understand human behaviour. The theory hangs on the assertion

that people's personalities are formed as a result of how a person resolves conflict between the conscious and unconscious mind. Freud (1938) divided the unconscious mind into three parts namely the id (primal animal desires), ego (attempts to bridge the other personalities) and super-ego (moral judge). According to the psychodynamic theory the conflict between these personality types can lead to depression if it is not resolved properly. When the desires of the id are not met due to the restriction placed by super-ego and the ego fails to provide a good compensation to the id this disappointment can be turned into depression.

Psychodynamic theory also argues that depression is a result of loss or rejection experienced by a person. This loss or rejection makes the person to think that he or she is worthless. The person then redirects his or her anger toward the self which reduces the person's self-esteem and it results into depression. Psychodynamic theory has evolved over the years giving birth to a modern theory under its umbrella called the object relations theory. This theory postulates that depression is a result of people's failure to develop a healthy relationship with other people. Sigmund Freud described Depression as a consequence of an on-going struggle that depressed people endure in order to try and maintain emotional contact with desired objects (Freud, 1933, 1960). According to the object relation theory, there are two types of depression namely anaclitic depression and introjective depression. Anaclitic depression is as a result of a person grieving over a threatened relationship with others or actual loss of relationship with others due to his or her dependency on such people. Introjective depression on the other hand occurs when a person feels that he or she have failed to meet their own standards or the standards of

important others and hence they regard themselves as failures. Such people are afraid of losing approval and recognition from their loved ones (McLeod, 2015; Nemade, Reiss, & Dombeck, 2007b).

Cognitivist theory on depression: Cognitive behavioral theorists suggest that depression results from maladaptive, faulty, or irrational cognitions taking the form of distorted thoughts and judgments. Depressive cognitions can be learned socially (observationally) as is the case when children in a dysfunctional family watch their parents fail to successfully cope with stressful experiences or traumatic events. Or, depressive cognitions can result from a lack of experiences that would facilitate the development of adaptive coping skills.

Cognitive theories emerge when behaviourists failed to take into consideration the thoughts and feelings of people underpinning human behaviour. Cognitive theory therefore integrates thinking and feelings into behavioural frame work and this served as the basis for the popular cognitive behaviour therapy (CBT). Cognitive theory postulates that depression is as a result of maladaptive, faulty, irrational and distorted thinking about an event.

According to Beck (1976) depressed people have negative beliefs about themselves. These thoughts may be as a result of some negative childhood experiences or traumatic event which predisposes the person to depression. According to Feldman (2008) depressed people who evaluate themselves and their environment negatively end up processing information negatively or making logical errors in their thinking. These illogical thinking patterns are self-defeating and increase the level anxiety and depression in people (McLeod, 2015). Depressed people continue to believe these negative automatic thoughts despite contrary evidence (Nemade, Reiss, & Dombeck,

2007d).

Humanist theory of depression: Maslow (1962) indicated that every human being has a need in life that they want to achieve and when these needs are not met or achieved, they can cause depression to the individual. Anything that blocks the striving to fulfil these needs can result into depression.

Health-Related Quality of Life Theory: Wilson and Cleary propounded HRQOL theory. According to Wilson and Cleary (1995), HRQOL explains and measures the quality of patient care in an illness situation. QOL is the general attitudes, feelings, or the capacity of individuals to perceive an ultimate contentment in a specific aspect of health. This aspect of health life (physical, mental or social), which is recognized by the individual as highly significant to their well-being, in an illness situation, is threatened by the development of disease or health-related dysfunctions. In this model, five domains were identified as fluctuating on a continuum. HRQOL's continuum ranges from biological factors and social factors up to psychological complexity of an individual's health life. In addition to these factors, the individual's personal characteristics and environmental factors seem to affect one's placement on the continuum (Wilson, & Cleary, 1997). The model is comprised of five primary levels of patient characteristics including (1) biological-physiological factors, (2) symptom status, (3) functional status, (4) general health perceptions, and (5) overall QOL. In addition, characteristics of the individual as well as the environmental factors are included in the model as nonspecific predictive variables of symptom status, functional status, general health perceptions, and overall quality of life (Ferrans, Zerwic, Wilbur, & Larson, 2005; Wilson & Cleary, 1995).

At the time this model was developed, Wilson and Cleary did not believe there was a model that described the relationship between clinical variable and health status measures. They developed this model to bridge this gap. Prior to the development of this model, the majority of HRQOL studies had a very limited or no theoretical basis (Sousa & Kwok, 2006). Measuring HRQOL without reference to a conceptual model stalled the expansion of HRQOL knowledge for many years. Wilson and Cleary model placed the concepts in a context and guided the development of new understandings about the relationships among them (Fawcett, 1999) and consequently helped health providers to identify and measure appropriate patient outcomes that reflect quality patient care (Sousa & Kwok, 2006).

Empirical Review

Empirical studies were reviewed on the relationships among the following psychological distress: Stress, Anxiety, Depression, and Social support among nurses of HIV/AIDS

An, Gao, Ma, and Xiao (2015) conducted a cross-sectional survey to assess the relationship between depression, anxiety, and quality of life among female nurses in Shaanxi province. 1700 nurses were recruited, 1570 of whom completed questionnaires. 389 (25%) of 1570 participants had depression. 911 (58%) participants had state anxiety, whereas trait anxiety was reported in 780 (50%) participants. All subscales of SF-36 scores of nurses who had depression were significantly lower than those of nurses without depression (p=0·003). All subscales of SF-36 scores, except physical function, of the nurses with high anxiety scores were significantly lower than those of the nurses with low anxiety scores (p=0·0003). Depression was significantly associated with poor overall

quality of life (β=107·874; p=0·0005) and all other seven domains of quality of life (p=0·016). Significant effects of social anxiety (β=59·760; p=0·029) and trait anxiety (β=57·908, p=0·027) were reported in overall quality of life.

Davhana-Maselesele and Igumbor (2008) conducted a cross-sectional study among 174 conveniently sampled nurses from five (5) hospitals from the Limpopo province to assess the impact of caring for persons living with HIV/AIDS on the mental health (measured against level of burnout, stress and depression) of nurses. The study participants' valuation using the AIDS Impact Scale (AIS) showed that nurses tended to develop strong bonds and relationships with the patients; felt frustrated by their inability to help the terminally ill AIDS sufferers and were subsequently affected by the death of their patients. Personal accomplishments of the nurses remained high (Cronbach's Alpha = 0.84) and the levels of emotional exhaustion and depersonalization levels were low (Cronbach's Alpha = 0.86) and (Cronbach's Alpha = 0.78) respectively. The BDI showed that over 3 out of 4 nurses were experiencing between mild mood disturbance and extreme depression. Higher average scores were noted for items of the depression scale like sadness, dissatisfaction, fatigue and low level of energy.

The study also reports that nurses without professional nursing training agreed that they suffered sigma/discrimination from other staff at the hospital due to the unit in which they work (p = 0.039; A2=4.242). Two-thirds (63%) of the nurses felt that they would end up like their patients and that they had a lot in common with the patients (70%) and that many aspects of the patients' lives reminded them of their own (68%). The majority of the nurses (>80%) reported that they formed good friendships with their patients with HIV and felt a

responsibility to help deal with the impact of AIDS on society respectively. Similar proportions noted that they were distressed by the difficulties faced by PLWHA in their care. A high proportion (89%) of nurses agreed that seeing patients suffer and die was very difficult for them and that they had difficulty coping with the number of deaths in their units and this made them feel powerless because no matter what kind of care they offered, the patients would still die. In the same study using the 21-item Beck Depression Inventory with a scale of 0 to 3, a Cronbach's Alpha of 0.96 was obtained and the mean total score was 26.70 (SD = 20.25). The scores ranged from 0 to 63. Sadness had the highest mean score (1.61) followed by fatigability (1.58), low level of energy (1.56) and insomnia (1.52). Expectation of punishment (0.78), pessimism (0.88) and ideation of suicide (0.89) had the lowest mean scores. There was no significant difference between mean scores of professional nurses and nurses without professional training across all the 21 items of the BDI. Categorizing the total scores into the different levels of depression showed that 34% of the 70 nurses who responded to all of the 21 items suffered extreme depression and 55% of them suffered from moderate to extreme depression. This means that nurses without professional nursing training reported higher levels of depression when compared to the professionally trained nurses. Personal accomplishment (Cronbach's Alpha = 0.84), emotional exhaustion (Cronbach's Alpha = 0.86) and depersonalisation (Cronbach's Alpha = 0.78). With regards to personal accomplishment, about one-third of the study participants felt they dealt with emotional problems calmly, positively influencing other people with their work and could create a relaxed atmosphere with their recipients on a daily basis.

On the other hand, over one-quarter of participants noted that they never felt exhilarated after working closely with patients and never felt that they had accomplished any worthwhile journeys in their jobs. Against the findings of this study Li et al (2007:258) added that meeting the health care needs of persons living with HIV and AIDS is dependent on the wellbeing of health care workers and hence the need to develop measure to ensure the mental and physical integrity of health care workers.

In this regard, Visintini et al, (1996: 192-3) put forward four key recommendations to prevent burnout among health care workers and include: the careful selection of nurses to work in burnout prone areas; provision of specialized training on relationships; development of functional support groups and debriefing programmes; clarification of roles, line functions, institutional support and recognition. The sensitization of workplaces to the implication of stigmatization on the quality of care provided by nurses is crucial given the negative impact of stigma on the quality of care provided by nurses (Li et al, 2007: 262). Institutional support is vital to the process of dealing with the stigmatization and creating a conducive working environment for nurses who cared for HIV-infected persons.

A study conducted by Tawfik and Kinoti in 2006 to assess the impact of HIV/AIDS on the health workforce in developing countries indicated that, within the formal health sector, data from an assessment of health workers in Kenya and Malawi has shown that the major reason for absences from work is related to illness. In Kenya, 34% of absenteeism was due to personal illness and 6% to attending to a sick person (Kenya Ministry of Health et al. 2004). This was followed by 29% unknown, 17% “personal reasons,” and 14% attending

funerals. In Malawi, personal illness was similar at 38%, followed by caring for relatives (27%) (8). Kenyan health workers cited the need for support to deal with the increased number of deaths, grief due to losing family and friends from AIDS, and general fatigue due to work demands. They also highlighted the importance of access to counselling and psychosocial support to deal with the increased number of deaths (Kenya Ministry of Health et al. 2004).

An, Gao, Ma, and Xiao (2015) reports findings of a cross-sectional study conducted to assess the impact of the AIDS epidemic on medical care systems and service providers in China using a representative sample of 478 doctors, nurses, and lab technicians working with people living with HIV/AIDS (PLWHA). Correlation analyses show significant association between internalized shame reported by service providers and their perception of being stigmatized due to working with PLWHA.

Multivariate analyses revealed that the perceived level of institutional support for AIDS care was significantly related to the stigmatization and shame reported by the service providers. The study findings suggest that improved institutional support for AIDS care at the facility level and HIV-related stigma reduction intervention are crucial to maintain a high-quality performance by the workforce in the health care system. The study sample was primarily female (72.8%) and Han ethnicity (68.2%), the racial majority in China. Approximately 23% of the respondents were younger than 30 years old and 31% were 41 years or older.

Approximately one-third of the sample worked in provincial hospitals or city hospitals, and about 45% of the participants were doctors, 42% were nurses, and nearly 13% were lab technicians. The study revealed that at the time

of the survey, about 40% of the sample had a four-year medical education or higher. The demographics of our participants are comparable to the 2003 data reported by the National Bureau of Statistics of China (2004). Correlation coefficients of identified variables were reported. The level of reported stigma and discrimination caused by working with PLWHA was noted to be significantly positively associated with internalized shame (r = 0.32), stress (r = 0.14), age (r = 0.10), and perceived societal stigma (r = 0.10). The Impact Scale had a significant negative relationship with knowledge of HIV (r = −0.10) and institutional support (r = −0.14).

Furthermore, the level of internalized shame was found to be positively correlated with stress (r = 0.15), and negatively associated with knowledge of HIV (r = −0.12) and institutional support (r = −0.10). The stress scale was significantly associated with age (r = −0.11), knowledge of HIV (r = −0.10), institutional support (r = −0.24), and perceived societal stigma (r = 0.12). Those who reported better institutional support for AIDS care in their work, however, tended to report a lower level of negative impact on their life (β = 0.13). Providers who perceived more societal stigma towards PLWHA (β = 0.1) and who felt more stressed in the past month (β = 0.1) also reported a higher level of negative impact of caring for HIV/AIDS patients. The providers who reported less institutional support (β = −0.10) and were older (β = 0.14) experienced a higher level of internalized shame for their work with PLWHA.

In summary, the findings of this study indicate statistically significant positive relationship between social support and quality of life. It also reports statistically negative relationship between stress and quality of life among health care givers of HIV/AIDS. To further discuss the findings of the study, it

was noted that the study examined the negative consequences of caring for PLWHA reported by providers at both individual and institutional levels. Service providers' feelings of being stigmatized and discriminated against due to working with HIV-positive patients and the related internalized shame were the primary foci of this study. The findings of the study help elucidate the negative consequences of caring for PLWHA reported by service providers in China and potential approaches to reduce them and maintain optimal performance of health care workers. The study generally provides clear evidence that institutional support is crucial to reducing service providers' perceived negative consequence of caring for PLWHA and minimizing their internalized shame. Good institutional support promotes a positive psychological state and prevent burn out and departure from the workforce. This finding is consistent with studies in other countries reporting the importance of adequate support with AIDS health workers in reducing personal distress and the role of that distress in reducing dropout (Ross, Greenfield, & Bennett, 1999; Claxton, Catalan, & Burgess, 1998).

A qualitative study conducted by Berg and Nilsson in 2015 among 7 female nurses to describe registered nurses' experiences of caring for patients with HIV/ AIDS in Dares Salaam reported some interesting social support findings. In this study, the authors presented the results in three main thematic categories. The nurses reported that cooperative relationship, confirmatory meetings and challenging and stress in caring for patients with HIV/AIDS are important aspects of their job. Therefore, the results were divided in 3 categories and 6 sub-categories to describe the main feelings of these nurses from the interviews. The following were categories with their respective sub-categories:

1. cooperative relationship; a). To achieve good cooperation b). To create a close relationship 2. Confirmatory meetings; a). To obtain confirmation as a nurse b). Striving to strengthen the patient through education and 3. Challenging and stress in caring for patients with HIV/AIDS; a). To manage heavy workload and stress b). To manage difficult meetings.

Findings in the study showed the importance of having cooperative relations between co-workers and between the nurses and the patients. The subcategories were named as the importance of a cooperative relationship and to achieve good cooperation. A good relation with other staff provides high quality in caring. The nurses experienced good cooperation with their co-workers because they trust each other and they feel free to talk about their problems at work. The nurses feel that they are working in a team. To create cooperative relations between nurses and patients, the nurse's goals are to remove the distance and to build trust. Junger et al., (2007) describes the importance to create a successful cooperation in palliative care. In their study, the most frequently mentioned criteria to achieve a good cooperation was close communication and to succeed with the cooperation, the team must work together as a whole with functioning performance, trust between the team and the functional coordination of workflow. The authors in the study believe that respectable relations among co-workers are important to provide a good cooperation. To work as a team the authors believe that trust is an important key to succeed in the cooperation as well as the communication. The authors believe that by having a successful cooperation between staff, the patients will notice the ambitions and the functional teamwork and by that they also become cooperative in the caring. The high quality in caring can be sustainable if the

cooperation is functional for everyone in the process, as well as the nurses as the patients. Another finding in the study, called to obtain confirmation as a nurse, is about the nurse's role as a counsellor by caring for patients' life and lifestyle. The nurses have big sympathy for their patients and a passion for their work. The nurses also described that they feel they have a big role as a nurse in society and that they are selected from God to care for these patients.

It is reported in the study that the Ministry of Health and Social Welfare in collaborating with the Government in Dar es Salaam (National Guideline, 2012) has performed a national guideline through care and treatment of HIV/AIDS. One of their programs is about counselling. It describes the counselling in were the nurse talk and educate the patient about nutrition, social support, legal support, transmission risks, how to disclose and mental health. It also describes couple counselling and to support healthy behaviours as well as the sexual risks.

A study done in Sweden (Röndahl, Innala, & Carlsson, 2003) describes the attitudes the nurses and the nursing students have towards HIV-infected persons. The study reclaimed that the fear of contagion with HIV still exist among nurses because, among other things, of the insecurity. Despite the fear, the Swedish nurses and nursing students experience a big empathy and strong attachments for the patients. The authors in this study believe that when the nurses absorb the patient's problems, it can affect the nurses psychologically in the long term. The authors believe that the expectations these nurses have seem to be very extensive and overwhelming and it can be seen as an inhumanity working situation. This make the authors wonder how long it will contain successfully for the nurses. The authors believe that the nurse's needs as obtain

confirmation in their work could cost them more psychological problems, because of the high expectations the nurses have on themselves. To continue a good care for patients the authors believe that the nurses need to be in a good psychological condition to be able to give a high-quality care. One of the concerns the authors discussed is how the nurses handles it when or if their patients do not improve their health. The authors believe that the nurses can be too confident to succeed about their patient's improvements since they did not prefer to talk about failure. The authors believe is the most important conclusion in these findings is to strive for a professional level that creates a manageable way of working, instead of focusing on how they experience themselves. One of the findings in this study; To create close relationships, the nurses describe themselves to be more than a nurse to their patients. The nurses in this study describe their relation with their patients as friendly or more. The nurses experienced a positive response from their patients when they created close relations. Melvin (2012) describes that the nurses who work with patients who has big needs as social, psychological, physical and spiritual can cause a risk of professional compassion fatigue. Especially for the nurses who work in palliative care, experienced low psychological and emotional and by that they had to maintain healthy coping strategies to protect themselves. Another study (Pajnkihar, 2009) describes their findings about perspectives of relations among nurses and patients. They concluded that respect, empathy and dignity are important keys for a successful relation. Therefore, they are important ingredients in the professional nurse-client relation which will improve the health of both the patient and the nurse. The authors believe that a professional relation between the nurses who participated in this study and the patients can

be difficult when working with patients who have these special needs. By treating everyone equal on a manageable level, will as well provide the nurses with good psychological and emotional health, the authors believe, influence a great nursing.

The results from the participants were generally satisfied although there were some suggestions who needed to be improved; the lack of space, the lack of staff and the long waiting time. The perceived stress and heavy workload seem to be a common problem among many nurses who are working with patients with HIV/AIDS in Tanzania. That stress can cause psychological and physical illness among nurses is one of the evidences that was found in this study, and the authors believe this can affect the caring. This can lead to an untenable work situation, which the authors believe will affect the entire workforce.

The authors also believe that the lack of space and having patients who are gathered in the same room while counselling, creates a risk that patients feel insecure and exposed which can lead to that nurses losing important information that can facilitate a better care. I believe the absence of relevant information from patient due to unfavourable working environment can frustrate the nurses in their quest to provide better care to their patient and may result their compromised psychological health.

Van Dyk (2007) also reports that stress comes as a result of painful meetings with suffering patients, the heavy workload, the concerns of the extreme poverty among patients, death and dying issues and the emotional involvements. It also mentions that occupational stress-related physical symptoms were headache, fatigue, exhaustion and loss of appetite. Arnold and

Boggs (2007) mean that exerted experiences improve meaningful caring for patients and are an important aspect to build bridges to a high-quality care. The authors believe that the big sympathy the nurses in this study have creates a delicate relationship between their patients and could cause more harm than good for the nurses. The authors believe that the costs these nurses take in believing for a better care, can rather turn into harm for themselves and for the whole caring process. The study concluded that nurses' experiences of caring patients with HIV/AIDS were both psychological and physically experiences. The psychological experiences were the stress, their love for caring, emotional attachment for their patients and good relationships. Their physically experiences is being burned out because of the heavy workload. Although the nurses have a big role in the community for caring for these patients, they believed that they have been chosen to care for patients with HIV/AIDS and to do it with an open heart. Their perceived challenges in the meeting with the patients overcome by their great passion for their job.

A qualitative, explorative, descriptive and contextual study conducted by Ramathuba, Davhana-Maselesele (2013) among 15 nurses in the regional hospital in Vhembe district, Limpopo province, revealed that, nurses caring for PLWHA experience lack of social support from colleague and managers and needed to be assisted to cope with care. The study explored the perceptions of support in caring for PLWHA in Vhembe district, Limpopo province. Specific findings include; Poor organizational support, Poor provision of resource in advocating quality care, Lack of psychological/emotional support, Lack of appreciation and recognition, Poor interpersonal relation, poor educational support and monitoring and lack of in-service training.

As far back as 1994, Buve, Foaster, Mbwili, Mungo, Tollenare, and Zeko, in Zambia showed that mortality rates among female nurses in two hospitals rose from 2 per 1,000 in 1980-85 to 26.7 per 1,000 in 1989-91.The mortality rate among nurses caring for PLWHA has caused more fear and anxiety in those currently in staff. Tawfik and Kinoti (2003) note from World Bank projections that a country with a 15% adult sero-prevalence rate for HIV can lose 1.6 to 3.3% of its health care providers from AIDS annually. They further estimated that absenteeism can take up 50% of the work time of a health worker living with AIDS in their final year of life. In Botswana, it was calculated that, if the average infected health worker lost 60 working days in a year, this would translate in the public health sector to the loss of 23,000 person days in 2003 alone (Abt Associates South Africa Inc. 2000).

Nagaraja, Reddy, Ravishankar, Jagadisha and Muninarayana conducted a study in 2015 among nursing students who have had experience of working in an HIV/AIDS department to assess the prevalence of depression and its associated factors. Out of the 430 stratified sampled students, the overall prevalence of sadness was found to be 47 (10.9%), among those with symptoms of pessimism is 30 (7%), past failure 15 (3.5%), loss of pleasure 24 (5.6%), and suicidal thoughts are 21(4.9%). Majority of students had mild to moderate degree of depression. This study showed that among 395 females, 45 are very close to sadness of the depressed and among 352 are very close to sadness. According to this study, 18 girls had decided to harm themselves or had suicidal thoughts. The prevalence of depression was significantly more among those with family problems and family history of depression. Much of the Literature in the study examined the extent to which risk factors such as negative

reactivity, sadness, pessimism, low level of social engagement, negative cognitive style, low self-esteem, low trust belief in others predispose adolescents to experience increasing level of loneliness, presumption of failure in their life or feel loss of pleasure, guilty feeling, punishment and suicidal thoughts. Prevalence of depression in college students is an under recognized mental health problem, because they be indecisive to disclose their feelings and seek social and psychiatric help.

Several studies have shown that social support as a coping strategy has a positive effect on well-being and job satisfaction among nurses (Burke & Greenglass 2001). Chang et al (2006) found the three most commonly used coping strategies for Australian nurses were: planned problem-solving, self-control and seeking social support; for Chinese nurses were: positive reappraisal, self-control, and planful problem-solving; and for Japanese nurses were: self-control, seeking social support, and planful problem-solving. Welbourne et al (2007) and Xianyu and Lambert (2006) indicated that nurses used more problem-focused coping rather than emotion-focused coping. According to Lambert et al (2004), nurses who indicated that they were likely to change nursing career found that accepting responsibility and escape-avoidance were their best coping strategies. Boey et al (1997) indicated that nurses in Singapore prefer self-help coping strategies to seeking social support from other nurses or supervisors. American urban nurses according to Bowman and Stern (1995) reported that coping strategy used to deal with work-related stressors depends on the situation and the past successful experience in similar stressful situation.

Experiences of fear, stigma, isolation, discrimination and marginalization related to HIV/AIDS come from: Misinformation about HIV transmission, Fear of contracting HIV, Fear of caring for PLHA when the nurse/midwife fears that she/he too may have the illness, Religious teachings and influences related to sexuality and birth control, The cultural norms of silence regarding sexual practices, Preferences and desires and, Legal issues related to the misuse of legal and illegal substances, particularly intravenous drug use (WHO, 2000. p37). This has resulted in low sense of sexual interest, low self-esteem, and poor caring attitude towards PLWHA among nurses.

Conceptual Framework

The following conceptual framework guided the study:

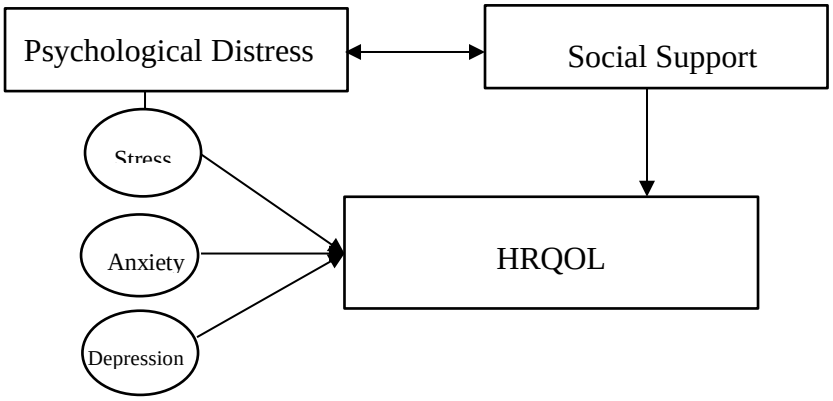

Figure 1-Psychosocial Health Mode

Source: Foreson, 2017

Psychological Distress

Psychological distress has been defined by many authors or researchers in different ways. Psychological distress is a group of emotional and cognitive symptoms that include depression, anxiety and anger (Perrault, 1989), and appears particularly when life events are not desired and or controlled (Suls & Mullen, 1981), as cited by Alhajjar (2013). Kanner, Coyne, Schafer, & Lazarus

(1981), also defines psychological distress as a negative emotional condition that is an adjunct to the appraisal of threat, harm or loss vis-à-vis an important goal. The negative emotion has been described in one particular study as unpleasant, frustrating, irritable, worrisome, and anxious, as cited by Mclean, Strongman and Neha (2007). Consequently, psychological distress ensues from an important demand (stressor) and inadequate resources to mitigate any potential harm, loss or threat (Lazarus & Folkman, 1984). Consequently, psychological distress ensues from an important demand (stressor) and inadequate resources to mitigate any potential harm, loss or threat (Lazarus & Folkman, 1984).

It has been reported that high levels of work stress among nurses' results in increasing rates of turnover and leaving their jobs (Sveinsdottir et al, 2006; Byrne, 2002). Suzuki et al (2004) indicated that the chance of error increases when nurses are under abnormal pressure of work or fatigue, while Olofsson et al (2003) indicated that nursing is a high-risk job regarding stress-related diseases including HIV/AIDS. Severe and prolonged distress is a major contributor to the development of burnout (Maslach et al, 2001; McVicar, 2003; Cooper et al, 2001; Pines, 2002) which generates a feeling of helplessness and hopelessness (Espeland, 2006) if it exceeds the limits of the person's ability to control or cope with stressors (Landeche, 2009; Hutman et al, 2005; Schaufeli, 2003). High psychological distress is associated with the feeling of anxiety and depression, low self-esteem, low ability to concentrate, cope with difficulties, participate in social life and make decisions (Goldberg & Williams, 1991). On a neuro-psychiatric level, sustained high psychological distress may block the ability to cope and thereby inhibit important processes like paying attention and

learning (Ursin & Eriksen, 2010). It has for long been known that increased psychological distress is also associated with increased risk for sick leave among nurses (Nystuen, Hagen, & Herrin, 2001).

The Concept of Stress at the Workplace

Stress is primarily a physical response. When stressed, the body thinks it is under attack and switches to 'fight or flight' mode, releasing a complex mix of hormones and chemicals such as adrenaline, cortisol and norepinephrine to prepare the body for physical action (Stress Management Society, 2017). Stress occur when the person perceives a challenging or threatening change that brings about disequilibrium because the person is unable to adequately adapt to the change.

Workplace stress is very common and nurses do face this type of stress. Nursing staff face several specific occupational stressors that influence their job satisfaction and may lead to increased rate of burnout (Stone & Harahan, 2010) and eventually affect their quality of life. One of such stressors is the high number of residents with dementia who may direct physical and verbal abuse toward staff or other residents. Such incident may not be entirely different from caring for people living with HIV/AIDS. Additional stressors include exposure to the declining health and death of many of their (nurses) service recipients (e.g. PLWHA), care of individuals who are incontinent of urine or faeces, and care to individuals needing different levels of assistance (Hasson & Arnetz, 2008; Morgan, Semchuk, Stewart, & D'Arcy, 2002; Pekkarinen, Sinervo, Perälä, & Elovainio, 2004). Stress among nurses is considered an international phenomenon, but with different levels according to country. Purcell et al (2011) indicated "Staffing and scheduling" as the sources of stress among 197

American registered nurses as indicated by the NSS. Hoolahan et al (2012) indicated that 'Workload' and 'Death and dying' subscales were the most stressful factors among 30 nurses in Medical-Surgical Unit at St Margaret Hospital, Pennsylvania, USA. This result was part of stress reduction programme used by authors and Nursing Stress Scale (NSS) was used to measure occupational stress before and after intervention. According to the cross-sectional, non-experimental study conducted by Welsh (2009), "Workload" was the highest ranked occupational stressor among 150 American female medical-surgical hospital nurses as measured by NSS. Hoffman & Scott (2003) performed a descriptive cross-sectional study among 208 (RR = 30%) nurses working in the state of Michigan. The highest two occupational stressors were 'Workload' and 'Death and dying' subscales as measured by the NSS

Classification of Stress

Stress can be classed by *effects of functioning* (Eustress & Distress) and *duration* (Acute, Episodic & Chronic).

Classification of Stress by Effect of Functioning:

This category of stress is classified according to its impact or effect on one's ability to carry out responsibilities (function) in the face of the stressor. This function may be adaptive (efficient) or maladaptive (inefficient) depending on how the receiver (e.g. a nurse) appraises the stressor (eustress or distress).

Eustress and Distress

Selye introduced the concept of positive stress, namely eustress (Selye, 1974). He extended his work in stress to distinguish eustress and distress in terms of adaptiveness toward stress response, where eustress is healthy, positive, constructive results of stressful events and stress response"

(Kupriyanov & Zhdanov, 2014). Lazarus considers eustress as a positive cognitive response to a stressor, which associated with positive feelings and a healthy physical state (Lazarus, 1998). This literally means that eustress motivates a person to engage in activities that yield expected result and it is usually healthy. For example, caring for HIV/AIDS patients may be stressful to some nurses, however, it may be eustress for others—it enhances the professional skills of nurses' overtime (long serving nurses maybe comfortable caring for people living with HIV/AIDS than student nurses).

On the other hand, distress, also known as negative stress, occurs when one's level of stress is either too high or too low and his/he body and or mind begins to respond negatively to stressors. Selye, (1975) argued that persistent stress that is not resolved through coping or adaptation should be known as distress and may lead to anxiety, withdrawal and depressive behaviour. Andrews et al., (2004) studied the relation of depression and anxiety to life stress and achievement in students. The results showed that 9% of previously symptom-free students became depressed, and 20% became anxious at a clinically significant level. Stress is another distressing symptom among students' nurses. Stress is a universal phenomenon and the student nurses are also not spared. They experience significant stress (it may be being exposed to patients with chronic illness) during their training period and this may contribute to sickness, absence and attrition (Galbraith & Brown, 2011)—that is, if they do not have good coping mechanism. The body itself cannot physically discern between the two is dependent on one's appraisal of the stress, but it is believed that the same stressor may cause both eustress and distress (Kabat-Zinn, 1996).

Classification of Stress by Effect of Duration:

This category of stress is also classified according to the length of time a person perceives a stressor to persist. Such length of time have been grouped into three (3) types namely; Acute (Short-term), Episodic, and Chronic (Long-term).

Acute stress

Acute means short and a rapid onset of an experience that may or may not be severe in course. With this in mind, acute stress could be defined as the kind of stress that brings on a sudden change / immediate threat; also known as the fight or flight response, and requires unwanted, radical adjustment to survive the shock. This is the most common type of stress; however, if acute stress happens frequently, it can cause psychological and physical distress (Lockwood, 2015). Since it is short term, acute stress does not have enough time to do the extensive damage associated with long-term stress (APA, 2017). Retrieved from www.apa.org. Some of the most common symptoms include: *emotional distress*; characterised by some combination of anger or irritability, anxiety and depression, the three stress emotions, stomach distress; characterised by gut and bowel problems such as heartburn, flatulence, diarrhoea, constipation, and irritable bowel syndrome. *Muscular problems* including tension headache, back pain, jaw pain, and muscular tensions that lead to pulled muscles and tendon and ligament problems. *Transient over arousal distress* leading to elevation in blood pressure, rapid heartbeat, sweaty palms, heart palpitations, dizziness, migraine headaches, cold hands or feet, shortness of breath and chest pain (APA, 2017). Retrieved from www.apa.org

Episodic stress

This is the result of experiencing lots of acute stressors in a short period of time. When one has to deal with so many sudden changes other than one, that fellow goes through a difficulty of maintaining his or her normal flow of life. Episodic stress is quite dangerous since it can cause a heart attack, mental paralysis and even death (Myers, 2007). It is common for people who suffer acute stress frequently. Common symptoms of episodic stress include over arousal, short-temperament, irritability, hypertension, heart diseases, anxiety and tension. Episodic stress is often accompanied by the frequent use of "nervous energy" (APA, 2017).

Chronic Stress

While acute stress can be thrilling and exciting, chronic stress is not. This is the most extreme stress situation that is continuous and unrelenting, when the urge for fight or flight has been suppressed. Chronic stress may even be mild, but because it is constant and one has to live with it for a long time without the hope any improvement one, it has a long-term effect on the body and mind. It wreaks havoc through long-term attrition. It is described as the stress of poverty, of dysfunctional families, of being trapped in an unhappy relationship, or in a despised job or career. Chronic stress comes when a person never sees a way out of a miserable situation. It has an unrelenting demands and pressures for seemingly interminable periods of time. Chronic stress is known to stem from traumatic, early childhood experiences that become internalized and remain forever painful and present. The worst aspect of chronic stress is that people get used to it. People easily become aware of acute stress because it is new; they ignore chronic stress because it is old, familiar, and sometimes,

almost comfortable. It kills victims through suicide, violence, heart attack, stroke, and perhaps, even cancer (APA, 2017).

Sources of stress

Stress is said to be derived from two points of sources, namely;

1. Stress from the individual's life: a. Interpersonal relationships i.e. Marital, parenting, extended family issues, divorce etc. b. Financial c. Accommodation d. Life changes e.g. retirement, newly married, starting family etc e. Sickness e.g. family medical/psychological history etc
2. Stress from the line of duty
    a. Accident b. Infection c. Dismissal d. Meagre and or unpaid salaries e. Unfavourable working conditions f. Harassment

The Concept of Anxiety

Anxiety does not have a precise definition and there is little agreement between scholars. It may be perceived, however, as an emotion characterized by tense and physically exhausting alert, focusing a sensation of imminent and inevitable danger (Terra, 2010). Anxiety and stress are interrelated because anxiety is a normal response to stress. Anxiety is an apprehensive state characterized by feelings of dread in response to internal or external stimuli (Lockwood, 2015). Anxiety is part of life. Getting one's HIV status checked for the first time, for example, could throw one into a state of anxiety amidst dreading of the outcome of the result. Fortunately for most of us, our uneasiness is not intense and persistent. If it becomes so, we may have one of the anxiety disorders, marked by distressing, persistent anxiety or maladaptive behaviours that reduce the anxiety (Myers, 2008). Anxiety symptoms (AS) are the most common manifestations of mental health problems in general population

including health care professionals, such as nurses (Taghinejad, Suhrabi, Kikhavani, Jaafarpour & Azadi, 2014). Anxiety disorders are the most common psychiatric disorder. They affect 15 – 20% of the population, occurring more often in women than in men. Most anxiety disorders begin between childhood and early adulthood, although they can also occur at older age. Often anxiety disorders are accompanied by other mental disorders e.g. substance abuse, depression or by physical disorders (Tewiah, n.d., p.1)

Anxiety's negative impact on quality of life (QOL) and disability across multiple illnesses is known, but its specific effect on nurses caring for PLWA is not studied in Ghana.

Types of Anxiety Disorders

Anxiety disorder is a compound name referring to a group of disorders, namely: Panic disorder, Social anxiety disorder, Obsessive-compulsive disorder (OCD), Generalised anxiety disorder (GAD), Post traumatic disorder (PTSD), Specific phobia, and Hypochondria.

Panic Disorder

This could be explained as the presence of recurrent, unexpected panic attacks, followed by at least 1 month of persistent concern about having additional attacks, worry about the implication of the attack or its consequences, or a significant change in behaviour related to the attacks. There are three clusters of symptoms: re-experiencing, avoidance and numbing, and arousal (A Report on Mental Illnesses in Canada, n.d. p60).

According to the Diagnostic Statistical Manual (DSM – V), the essential feature of the panic attack is a discrete period of intense fear or discomfort that is accompanied by at least 4 of 13 physical symptoms, such as: Palpitations,

increased heart rate or pounding heart, Sweating, Trembling or shaking, Sensations of shortness of breath or smothering, Feeling of choking, Chest pain or discomfort, Nausea or abdominal distress, Dizziness, unsteadiness, light-headedness or fainting, De-realization or de-personalization, Fear of losing control or going crazy, Fear of dying, Parenthesis (numbness or tingling sensation), and Chills or hot flashes.

Social anxiety disorder

Social anxiety disorder or social phobia can consist of a fear in one specific situation, like talking in public, but can also be more generalized and occur in different social situations. Mostly these are situations in which one is expected to function socially or to perform. It could also be described by situations in which one could be criticized by others or made fun of, resulting in looking silly due to visible anxiety.

There is an intense fear of shame or being humiliated. Confronted with the fearful situation they will experience intense fear which could lead to a panic attack. Symptoms may include blushing, shaking hands, nausea or the urgent need to go to the toilet. People suffering from this disorder are aware their fear is exaggerated and unreasonable, but will still avoid these situations as much as possible. The avoidance starts to be more and more profound, eventually interfering with daily life.

Obsessive-compulsive disorder (OCD)

The main problems of OCD are the recurrent obsessive thoughts and/or compulsions. Obsessions are repetitive, persistent thoughts or images which cause anxiety. These thoughts or images are perceived to be involuntary, but still a product of one's own mind. The compulsions are repetitive and seemingly

useful actions, which are executed according to specific rules and in a stereotypical manner. The effect of these actions is to neutralize tension or to prevent seemingly threatening situations or events from happening. Such actions may include hand washing, ordering and/or checking, mental acts (such as praying, counting or repeating words). The patient suffers from these symptoms as they can take up a considerable part of the day, or lead to significant dysfunction.

Generalised anxiety disorder (GAD)

People with a GAD are always nervous and tensed. They worry excessively about multiple small, insignificant daily occurrences and have difficulty controlling their worries. Due to this they experience several of the following symptoms: difficulty concentrating or remembering, symptoms related to high muscular tension, irritability, restlessness, sleeping problems, fatigue, etc. The extent of these symptoms leads to problems functioning on a social or profession level such as caring for PLWHA.

Post-traumatic stress disorder (PTSD)

PTSD is a consequence of experiencing a traumatic event in which a person has been faced with death, severe injury, or in which one's physical integrity has been threatened. The experience was accompanied by an intense fear, helplessness or horror. Examples are robberies with violence, rape, abuse, natural disasters, war, witnessing an accident or shooting, etc. Symptoms that occur are re-experiencing the event in the form of terrifying dreams or reoccurring memories and flashbacks. There is a tendency to avoid things or places that are related to the event. In some instances, there is numbing of one's response concerning related topics. When subjected to circumstances

resembling the trauma or aspects of the trauma there is intense mental suffering. Symptoms of increased tension e.g. agitation, loss of temper, frightfulness, problems concentrating, problems sleeping, vigilance, etc. tend to linger for a long period of time. There is often a feeling of detachment or being estranged from others, difficulty showing affection and negative expectations concerning the future.

Specific Phobia

When there is an irrational fear for an object or specific situation we consider that a specific phobia. This relates to fear for certain animals, heights, seeing blood, injections, flying, confined spaces etc. Exposure to the frightening stimulant results in, an increased physical arousal and sometimes to a full blown panic attack. With the blood phobia, the physical arousal is quickly followed by a decrease of hart beat and blood pressure, which can lead to fainting. It is important to know this to avoid accidents. In most cases people are very much aware of their phobia and avoid situations or objects they are afraid of. But in some cases, avoiding the stimulant interferes with their functioning at work, school or in their social life.

If nurses are faced with distressing circumstances that lead the unfortunate formation of any specific phobia as a result, it would obviously impede work performance. This could be manifested in the avoidance of such specific objects or situations even if medical proceedings require that he/she meets up with such objects or events.

Hypochondria

People suffering from hypochondriasis, interpret harmless physical sensations as possible signs of a serious disease. They are preoccupied with the

fear or the conviction of having this disease and the preoccupation remains present after adequate medical evaluation and reassurance. The preoccupation is so extensive that they are unable to focus on work, school or have a normal social life.

In event where a nurse interprets his/her infrequent coughs as haven contracted tuberculosis from a PLWHA, since it is one of most common opportunistic infections of HIV/AIDS, certain amount of worry and/or attitude may be conceived, which may subsequently affect work output.

Causes of anxiety disorders

Like other mental and physical disorders, anxiety disorders seem to be a result of *genetical*, *developmental* and *environmental factors*. These factors influence the brain and how it functions.

Genetical factors determine how the brain is built. But more and more we are finding out that the brain and its functioning is influenced by the way we are brought up (e.g. how you were raised to react in fearful situations) and our environment, the things we experience (e.g. trauma's). In anxiety disorders the main parts of the brain that seem to play a key role are the amygdala and the hippocampus. The amygdala plays a role in processing fear signals and triggering a fear response and it uses memory stored in the hippocampus to do this. Unravelling why the amygdala triggers fear signals, even when there is no real fear and how to influence this is still very much a subject of on-going research.

The concept of Depression

Depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, decreased energy, feelings of guilt or low

self-worth, disturbed sleep or appetite, and poor concentration. Moreover, depression often comes with symptoms of anxiety. These problems can become chronic or recurrent and lead to substantial impairments in an individual's ability to take care of his or her everyday responsibilities. At its worst, depression can lead to suicide. Almost 1 million lives are lost yearly due to suicide, which translates to 3000 suicide deaths every day. For every person who completes a suicide, 20 or more may attempt to end his or her life (WHO, as cited in Marcus, Yasamy, Ommeren, Chisholm, Saxena, 2012).

Depression is a very common disorder, affecting between 10% to 25% of women, and about 10% to 15% of men (Bartha, Parker, Thomson, Kitchen, 1999). An estimated 1 in 20 Canadians, or about 1.5 million people, report some form of depression or anxiety disorder every year, which makes it Canada's fastest-rising diagnosis (Mood Disorders Society of Canada, 2009).

In fact, about 1 in 10 women will experience postpartum depression in the months following childbirth. According to Mood Disorders Society of Canada (2009), though depression affects people of all ages, about twice as many women as men are diagnosed with clinical depression. The age groups with the highest rates of depression are those under 20 years old, with adolescence being the usual age of onset for depression. Depression is also an issue for senior citizens, with those living in long-term care facilities experiencing depression at a rate of up to 9 in 10. Mayo Clinic (2010), outlines other risk factors for developing depression (causes) as: having relatives with depression, having a traumatic experience as a child, having personality traits such as low self-esteem, worrying, being overly dependent on others, perfectionism and hiding your feelings, experiencing stressful life events, such

as the death of a loved one, divorce, the loss of a job, retirement, serious financial problems, and family conflict, experiencing unusual physiological changes such as childbirth, and viral or other infections. Depression is a mental state of altered mood characterised by various aspects of cognition, behaviour, physiology and specific relevant symptoms, including loss of appetite, sleep disturbance, slow movement and diminished ability to concentrate (WHO, 2008). Nurses are more exposed to experiencing high level of stress and depression associated with occupational experiences than are those in other occupations (Weinberg & Creed, 2000; Firth-Cozens, 2003). Depression might be reflected in poor patient care and physical symptom of stress in nurses such as sleep and appetite disturbances (Khalid et al, 2010).

In a recent study conducted in Pakistan, Khan et al (2011) found that out of 700 nurses 97(14%) reported benzodiazepines' use, out of which (71) 73% reported using them by themselves (self-medication). These drugs were used for sleep problems by 62.8% worry 20.6% depression 12.3% and others like pain 4.1%. The findings of Khalid et al's (2010) study indicated that 30% of female nurses working in a teaching Abbasi Shaheed Hospital in Pakistan had mild depressive illness, 42.9% had moderate depressive illness, 8.6% severe depressive illness and only 18.6% had no symptoms of depression measured by the Hamilton Rating scale.

The Diagnostic Statistical Manual-5 (DSM-V) indicates three (3) major types of depression, namely; major depression, persistent depressive disorder (PDD) and bipolar disorder. PDD was formerly classified as dysthymia characterized by sad mood, lack of interest, and loss of pleasure associated with major depression, but less intensely and for a longer period. The duration for

such experiences must be at least two years (Bernstein et al., 2006 as cited by Yirdong, 2016 p28). Bipolar disorder is characterized by episodes of both depression and mania. It was formally classified as manic-depressive disorder with manic symptoms such as abnormally high state of exhilaration, hyperactivity, wildly optimistic (Myers, 2010; Wade & Tavris, 2011 as cited by Yirdong, 2016 p. 28).

The effect of stressor in a hospital environment is mitigated by the number, nature, and intensity of stressors, and the timing, occurrence, and conditions of wellbeing and adaptive ability of nurses within the hospital environment (Moola, Ehlers & Hattingh, 2008 p76). Hence, the psychosocial wellbeing of nurses is affected by stress and can have some impact on the quality of provision of care to PLWHA (Makhado, 2011).

The concept of social support

In order to discuss the role of social support as it pertains to nurses caring for PLWHA, its definition and key features must be known. The term was coined in the second half of the 20th century, its intuitive properties have been written about and extolled for centuries. Darwin (1871/1952) wrote extensively of the benefit of being a social animal. In particular, being part of a cohesive group provided protection from predators and continuation of the species. Darwin also conferred emotions such as love, satisfaction, pleasure, and sympathy on social animal. With reference to sympathy, Darwin stated, “Those communities which included the greatest number of the most sympathetic numbers, would flourish best, and rear the greatest number of offspring” (p. 309 as cited by William, 2005). Social support is a multi-faceted concept that has been difficult to conceptualise, define and measure. Below are a few definitions

to give us a sense of the varying perspectives on the concept of social support; Albert and Adelman (1987) defines social support as "verbal and nonverbal communication between recipients and providers that reduces uncertainty about the situation, the self, the other, or the relationship, and functions to enhance a perception of personal control in one's life experience" (p. 19 cited in Hunt, 2011). The key features of this definition include: Communication, Uncertainty reduction and Enhanced control. Gothleib (2000) defined social support more broadly as the "process of interaction in relationships which improve coping, esteem, belonging, and competence through actual or perceived exchange of physical or psychosocial resources' (p. 28). In the definition the key features of social support are: Interaction, Coping, Esteem, Belonging, Competence, and Exchange. Both definitions suggest that social support leads to improvement in several areas of health and well-being by making individuals feel better about themselves and jobs by raising their sense of self-esteem, reaffirming their association or sense of belonging to a group of people (say nurses of HIV/AIDS) or improve their ability or competence to perform needed tasks. Much of the job stress in nursing is an inherent feature of the job: dealing with the high anxiety exhibited by patients and families in crisis; witnessing human suffering and death; and accountability for life and death decisions (Khalafi, Tangestani and Osanloo, 2014) among HIV/AIDS patients. Because most sources of job stress in nursing, especially among PLWHA, are not irreversible, a means of altering, buffering, or protecting the individual has been considerable in this subject of research. There is a fast-growing body of research evidence that social support is an important protection against the impact of stress on physical and mental health (Khalafi, Tangestani & Osanloo, 2014). The findings

of research focused on the relationship of social support to stress and burnout in caring for PLWHA, however, are scarcely available. The results of exploratory studies suggest that a lack of supportive relationships may enhance one's vulnerability to burnout. And of even more significance, in an atmosphere of occupational and personal stressors, social support may offset the effects of intense and undesirable stressors and contribute to the prevention of burnout (Cronin-Stubbs & Brophy, 1985; Pines & Kanner, 1982; Yasko, 1983)

Chapter Summary

Global and continental literature on psychological distress associated with nursing PLWHA has seen varied prevalence statuses and its relationship with quality of life. While many reported high prevalence of stress, depression and anxiety, others reported moderate to low prevalence with minimal to high effects on quality of life of nurses caring for PLWHA. Notwithstanding these varied reporting on the subject matter, it was established that there was a significant psychological distress and social support that had significant relationship with quality of life among nurses who care for PLWHA (Hall, 2004; An, Gao, Ma, and Xiao, 2015; Welbourne et al, 2007; Lambert et al (2004). The difference however in the reported prevalence could be as a result of the choice of instruments researchers used for the various studies conducted. Measuring depression, anxiety and stress among nurses can be confounded by various factors that the researcher may not have noted. The psychodynamic theory of depression which was propounded by Sigmund Fraud notes that personality type of the individual is can cause depression if it is not resolved properly. The conflict between these personality types can lead to depression. When the desires of the id are not met due to the restriction placed by super-

ego and the ego fails to provide a good compensation to the id this disappointment can be turned into depression. Another reason could be due to the prevalence of HIV/AIDS in the respective study areas. This, I believe could be a determining factor that nurses-patient ratio may result in an increased or decreased workload for nurses in the respective study areas may induce high or low prevalence.

Several literatures show that social support has an inverse relationship with psychological distress and a positive correlation with quality of life (Burke & Greenglass 2001; An, Gao, Ma & Xiao, 2015). Although social support is reported to have effective positive relationship with quality of life, some other nurses preferred to use self-help coping strategies nonetheless, than seeking social support from other nurses or supervisors (Boey et al, 1997). Some literature also identified some effective personal coping strategies that have inverse relationship with psychological distress and positive correlation with quality of life. Some of these coping strategies were planned problem-solving, self-control and seeking social support. Others were: positive reappraisal, self-control, and planful problem-solving; and for Japanese nurses were: self-control, seeking social support, and planful problem-solving (Chang et al, 2006; Welbourne et al, 2007). Xianyu and Lambert (2006) also indicated that nurses used more problem-focused coping rather than emotion-focused coping. According to Lambert et al (2004), nurses who indicated that they were likely to change nursing career found that accepting responsibility and escape-avoidance were their best coping strategies. American urban nurses according to Bowman and Stern (1995) reported that coping strategy used to deal with work-related stressors depends on the situation and the past successful

experience in similar stressful situation. It was identified, however, that, there is sparse and inadequate published literature on the prevalence of psychological distress and social support on the quality of life of nurses who care for PLWHA in Ghana and some part of Sub-Sahara Africa at large. It is therefore necessary to conduct research the subject in Ghana to bridge this gap.

CHAPTER THREE

RESEARCH METHODS

Research Strategy

Research strategy is a general approach to research determined by the kind of research question(s) or research hypothesis that the study seeks to test or to answer (Gravetter & Forzano, 2009). This study used a quantitative research strategy to measure the variables of study.

Correlational and cross-sectional survey was used for the study. Cross-sectional was appropriate because, it helped in capturing information from a pool of participants with varied characteristics and demographics (gender, type of nursing, age, and income levels). However, this survey may have some few shortcomings which may include; the inability of the survey to be used to analyse behaviour over a period of time, as well as inability of the survey to establish cause and effect. Correlational study was used because it provided information about naturally occurring status, behaviour, attitudes or characteristics of a particular group (nurses caring for PLWHA).

Research Design

Research design can be explained as the general plan for implementing a research strategy. A research design specifies whether the study will involve group or individual participants, make comparisons within a group or between groups and how many variables will be included in the study (Gravetter & Forzano, 2009). It provides a general frame work for carrying out a research based on the objective of a study a researcher may decide to use an experimental

design (between groups or within group), non-experimental design or quasi-experimental design, factorial design and single subject design.

The study adopted the non-experimental research strategy using specifically the correlational research design since the study sought to find the relationships among psychological distress and social support on quality of life among nurses without any interest in cause and effect relations. In correlational research, the strength of the relationship between two or more variables is quantified. A correlation does not simply measure causality, but the observed correlation between or among variables. The challenge however is that, data may be either consistent or inconsistent with some currently held theory. Like naturalistic research, a correlation cannot prove a theory, but can negate a theory.

Study Area

According to Ghana Statistical Service (as cited by World Population Review, 2018) the total population of the central region is 143,015. According to the 2016 HIV sentinel survey, Central Region has HIV/AIDS prevalence rate of 1.8%. The region is made up of 17 districts and the primary occupation of the population is farming and fishing. Majority of the population in the region are Christians (83.2%), while Muslims and other religion constitute 8.67% and 8.13% respectively. Cape Coast serves as the regional capital as well as the administrative seat of the region. The Cape Coast Teaching Hospital (CCTH) was selected as one of the sites for the study because it is the only referral health facility in the region. As a result, many nurses are posted there during and after their professional training to practice. The facility is also the largest referral centre for varied health conditions in the region including HIV/AIDS; for

comprehensive medical attention. The second and final health facility selected for the study was the Cape Coast Metropolitan Hospital. This facility also runs Retro clinic for PLWHA and could as well be the next largest government facility in the Cape Coast metropolitan assembly.

Population

A study population is defined as the entire set of individuals of interest to a researcher. A sample is then drawn out of the general population for the study using appropriate sampling procedure. This sample was defined by the researcher's specific interests (Gravetter & Forzano, 2009). The study population was made up of nurses that take care of HIV/AIDS patients in the selected health facilities in Cape Coast metropolis. These health workers include General Health, Psychiatric, Midwives, Public Health and Community Health Nurses. The selected health facilities included Cape Coast Teaching Hospital, and Cape Coast Metropolitan Hospital. The population size was made up of 112 nurses distributed as 77 nurses from CCTH and 35 nurses from Metropolitan Hospital.

Inclusion Criteria

Inclusion criteria of a study can be said to be the attributes of subjects that are essential for their selection to participate. Its function removes the influence of specific confounding variables (Summer, 2010).

Nurses of HIV/AIDS who were not above the age of 60 years were included in the study. The nurses were staff; either full time or part-time in selected health facilities. At the time of data collection, nurses who participated in the study had at least two (2) weeks of clinical HIV/AIDS working experience. Student nurses on clinical internship and nurses who were doing

their national service were also included in the study. Nurses of HIV/AIDS who consented to undertake the study were also included.

Exclusion Criteria

Exclusion criteria is said to be response of subject that requires their removal as subject (Summer, 2010).

Retired nurses of HIV/AIDS, nurse who care for other patients other than PLWHA, Nurses of HIV/AIDS who refused to wilfully participate or offer consent to undertake the study, and nurses with less than two (2) weeks of working experience with PLWHA were excluded from the study.

Sample and Sampling Techniques

A sample is a set of individuals selected from a population and usually is intended to represent the population fairly in a research study (Gravetter & Farzano, 2009; Suen, Huang, & Lee, 2014). Sampling on the other hand involves the process of selecting a portion of the population to represent the entire population (Amedahe, 2000). Sampling enables the researcher to study a relatively small number of units in place of the target population and to obtain data that is representative of the whole population (Sarantakos, 1998)

Two-staged sampling technique was used: Purposive and Census samplings. The first stage will be Purposive sampling method to select participants. This is to first get the required characteristics of the respondents, that is, nurses who take care of HIV/AIDS patients; due to the specialized nature of the study and the selective nature of the sample to suit the study. Census sampling was the second stage of the sampling procedure; this was because the respondents were limited in number (112 nurses of HIV/AIDS) in selected facilities. Purposive sampling is a non-probability sample that is selected based

on characteristics of a population and the objective of the study. The criteria of the elements that are to include in the study is predefined. The purposive sampling is also known as judgemental, selective, or subjective sampling. Census sampling on the other hand is appropriate in event where the entire population is very small or it is reasonable to include the entire population. It is called census because the data is gathered on every member of the population (Crossman, 2017).

Instrument

Four-sectioned self-report questionnaire was used to elicit response from participants.

Section 'A' described the demographic characteristics of the nurses in the areas of Gender, Age, Marital Status, Type of Nursing profession and income level satisfaction.

Section 'B' of the instrument described Depression Anxiety Stress Scale (DASS – 21)

DASS was adapted for the study to capture data on depression, anxiety and stress among nurses caring for PLWHA with Cronbach's alpha of 0.9.

DASS is standardized clinical assessment tool used to isolate and identify aspects of emotional disturbance; for instance, the severity or otherwise of the main symptoms of depression, anxiety or stress. The initial aims of the scale's constructions were to define the full range of core clinical symptoms of depression and anxiety, meet rigorous standards of psychometric adequacy, and develop maximum discrimination between depression and anxiety scales. While DASS can be administered and scored by individuals without psychology qualifications, it is recommended that the interpretation and decisions based on

the results are made by an experienced clinician. Also, empirical studies have provided support for the reliability scores of the scales in terms of Chronbach's alpha scores rate. Lovibond (1995) reports Chronbach alpha of the sub-scales of DASS as follows; Depression = 0.91, Anxiety = 0.84, and Stress = 0.90 in the normative sample. Tran, Tran, and Fisher (2013) also conducted a study to validate the DASS – 21 as a screening instrument for depression, and anxiety in a rural community-based cohort of northern Vietnamese women. They reported that the Cronbach's alpha of each sub-scale and the overall scale were high, ranging from 0.70 for stress sub-scale to 0.88 for the overall scale. Cronbach's alpha for depression sub-scale is 0.72 and Anxiety is 0.77.

For clarity of some test items on the scale, I modified the wording of some of the items. For instance, the first test item on the scale was re-worded from "I found it hard to wind down after getting agitated" to "I found it hard to calm down after getting agitated". Item number 13 also was modified from "I felt down-hearted and blue" to "I felt down-hearted and sad". It is called DASS-21 because it has 21 test items on the scale with each sub-scale bearing 7 test items.

Section 'C' of the instrument described Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet, Dahlem, Zimet & Farley, 1988):

The Multidimensional Scale of Perceived Social Support (MSPSS) is a brief research tool designed to measure perceptions of support from three (3) sources: Family, Friends and a Significant Other. The scale is comprised of a total of 12 items, with 4 items for each sub-scale with overall Cronbach alpha of 0.85 (Zimet, Dahlem, Zimet & Farley, 1988)

The items of this instrument is on a Likert scale, ranging from 1 (very strongly disagree) to 7 (very strongly agree), then participants are asked to indicate how they feel about each statement concerning their social support. Some of the test item statements on the scale include the following, "my family tries to help me", and "I can count on my friends when things go wrong". Across many studies, the MSPSS has been shown to have good internal and test-retest reliability, good validity, and fairly stable factorial structure. The MSPSS has demonstrated a strong psychometric property; coefficient alpha for scales were reported as follows; total score (0.88), family (0.87), friends (0.85) and significant other (0.91). Test –retest reliability of the total score was 0.85. It has been translated into many languages for linguistically-validated translations. I adopted the MSPSS for the study to capture data on perceived social support for nurses caring for PLWHA patients in the Cape Coast Metropolis.

The final section described World Health Organization Quality of Life Scale Short Form (WHOQOL – BREF)

The WHOQOL-100 assesses individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It was developed collaboratively in some 15 cultural settings over several years and has now been field tested in 37 field centres. It is a 100-question assessment that currently exists in directly comparable forms in 29 language versions. It yields a multi-dimensional profile of scores across domains and sub-domains (facets) of quality of life. More recently, the WHOQOL-BREF, an abbreviated 26 item assessment has been developed. The WHOQOL-100 and WHOQOL-BREF have many uses, including use in medical practice, research, audit, policy

making and in assessing the effectiveness and relative merits of different treatments.

They can also be used to assess variation in quality of life across different cultures, to compare subgroups within the same culture and to measure change across time in response to change in life circumstances. The WHOQOL-100 and WHOQOL-BREF is reported to have strong correlation in their respective four domains: Physical health = 0.95, Psychological = 0.92, Social Relationship = 0.89 and Environmental = 0.94. This means that regardless of which type of scale (BREF or 100) adopted, its validity may not be much different from the other.

Pre-test Results

The instrument was pretested using 30 nurses that care for PLWHA from Effia-Nkwanta Regional Hospital, Takoradi, to ascertain the internal consistency of the adapted instrument. Effia-Nkwanta Regional Hospital was chosen because the respondents shared similar characteristics with the studied population. The facility is also a tertiary referral centre; which means that I had a variety of demographic background characteristics as that of the selected health facilities for the study.

Results from the pre-testing showed that the instrument was internally consistent – with the following as the statistical breakdown of the various sub-scales: Depression Anxiety Stress Scale (DASS) = 0.916, Multidimensional Scale of Perceived Social Support (MSPSS) = 0.932, World Health Organisation Quality of Life Scale Short Form (WHOQOL-BREF) = 0.793 and the overall Cronbach alpha of the instrument showed 0.836 as against the ideal Cronbach alpha of ≥ 0.7 (Cook & Beckman, 2006). The adapted scales were

therefore deemed as reliable and valid to be used for this study. The scales were pretested to enable the researcher to sharpen the instruments by way of rewording and restructuring the items; this was in line with Oppenhem's (1992) statement that pretesting helps to discover possible weakness, ambiguity and problems with the instrument, so that they can be corrected before actual data collection.

Data Collection Procedure

Before the actual data collection, I sent an introductory letter from the Department of Educational Foundations to the administration department of the selected health facilities for consideration and processing. Thereafter, I sought for ethical clearance from the Institutional Review Boards of the Department of Education and Psychology in the University of Cape Coast (see Appendix) and the selected health facilities. The ethical clearance of my department spelt out the purpose of the study, the need for individual participation, anonymity as well as confidentiality of respondent's responses. After that the necessary contact with the heads of the selected facilities was established, permission was sought for the administration of instrument. Upon approval of the study protocol by the selected hospital's administration, ethical clearance was also sought from Committee on Human Research Publication and Ethics (CHRPE) of the selected health facilities. Respondents were briefed on the purpose of the study and given each respondent consent form to sign by way of consent to participate in the study (see Appendix).

I administered the scales personally and this enabled me to re-echo the purposes of the study and established rapport with respondents. Distributions of instruments were done with the assistance of some of the staff of the Punic

Health CCTH Unit. An informed consent and participation leaflet, explaining the purpose of the study and assurance of confidentiality and anonymity to respondents, was attached to the scales. Respondents were met in groups with each session lasting 45 minutes. The data collection process started in May 2017 and ended in July 2017, thus spanning a period of two months. The return rate of the survey instrument was 93.75% with CCTH representing 68.57%, and Metro Hospital giving 31.43%.

Data Processing and Analysis

Generally, the data gathered for the study was analysed statistically. After the data collection the individual question items on the questionnaire were coded in a code book and statistical software tool Statistical Package for the Social Sciences (SPSS) version 20 for window (IBM Corporation, 2011). This was because it offers a full range of descriptive and inferential statistical methods, good editing, and labelling facilities as well as ability to produce output in both table formats and summary form. It is also capable in handling missing data with ease. The scales were first edited, coded and scored.

Serial numbers were given to each scale for easy identification. Items on the section 'A' scale that measured the demographic variable were entered with serial numbers proceeding with 'A', such that the five (5) items on the scale were identified as A1, A2 to A5. Gender, for instance, was entered with serial label 'A1" and its dichotomous options 'Male' and 'Female' were also labelled as '1' and '2' respectively on a nominal scale. 'Age' was labelled 'A2' and its options were grouped in ranges of 18 – 25, 26 – 33, 34 – 41, and 42 – 50; and were labelled as 1, 2, 3, 4 respectively on a nominal scale. Marital status was entered and measured on categorical scale while both Type of

Nursing and Income Level satisfaction were also labelled as 'A4' and 'A5' respectively and measured on nominal scale. The Depression and Anxiety Stress Scale (DASS) was also entered and labelled with a preceding serial letter 'B' to each of its 21 items beginning with 'B1' to 'B21'. The corresponding response options were also labelled with numbers as they appeared on the likert scale. The Multidimensional Scale for Perceived Social Support was entered with preceding serial letter 'C' such that its 12 items were labelled from 'C1' to 'C12'. Its corresponding response options were also labelled with numbers as they appeared on the likert scale from 1 to 7 indicating 'Very strongly disagree' to 'strongly disagree'. Finally, the World Health Organisation Quality of Life Scale was coded with letter 'D' as a proceeding the numbers assigned to the items for easy identification. The corresponding response options for each item were also labelled with numbers as they appeared on the likert scale. The editing procedure was to check whether respondents had followed directions correctly, and whether all items had been responded to. The self-constructed questionnaire was on demographic data of the respondents. These responses were analysed using frequency and percentage tables.

Parametric tests were used to test the study hypothesis. This was because the hypothesis was based on known information about the population studied, and the correlation test used to test the hypothesis was Pearson. Inferential statistics Pearson's Correlation Coefficient was used in testing research hypothesis 1, 2, 3 & 4 since correlation coefficient is appropriate for examining the relationship between continuous variables. Hypothesis 5 was tested using multiple regression analysis. This test is useful in explaining the relationship between one continuous dependent variable (QOL) and two or

more continuous or categorical independent variables (Demographics and QOL). Regression Moderation analysis was used to analyse Hypothesis 6. This is also to help determine the moderating effect of a third variable (social support) on the relationship between a continuous dependent variable (QOL) and continuous independent variable (psychological distress).

Chapter Summary

This chapter explained the research method adopted for this study. A quantitative research strategy was used in determining the correlations among psychological distress, social support and quality of life of nurses caring for PLWHA in Cape Coast. Correlational research strategy was specifically used to analyse the relationship between the independent and independent variables and inferential statistics were used to test the research hypothesis.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

In this chapter, the results of the research have been presented and interpreted. The aim of this study was to discover whether there are correlations among psychological distress, social support and Health Related Quality of Life (HRQOL) among nurses caring for PLWHA in Cape Coast Metropolis, Ghana. Specifically, the researcher sought to test the seven-hypothesis presented at chapter one.

Demographic Data

This part presents and discusses the preliminary data, which consists of the background information of the participants. These include the gender, age, marital status, type of profession, and income level satisfaction.

The table 1 below presents frequency and percentage distribution of gender of respondents who took part in the study.

Table 1-*Gender Distribution of Nurses*

Gender	Frequency	Percentage (%)
Male	27	25.7
Female	78	74.3
Total	105	100.0

Source: Field work, (2017)

Table 1 shows that 78 (74.3%) were females while 27 (25.7%) were males. It can be seen that majority of respondents were females. This was partly because there is a popular opinion in Ghana that nursing is a profession for the female and it is evidenced in the gender distribution in the nursing profession in Ghana. In Ghana in the late 1990s, for example, 59% of all public health staff was female, but this reduced to 33.5% at the Ministry of Health headquarters. Only 17% of doctors were female as compared to 87.4% of registered nurses and 90.2% of enrolled nurses (Dovlo, 1998).

Below is a frequency count and percentage distribution of age range of respondents. The age ranged from 18 years to 50 years in groups of four; 18 – 25, 26 – 33, 34 – 41, and 42 – 50.

Table 2-*Age Range Distribution of Nurses*

Age Range	Frequency	Percentage (%)
18 – 25	60	57.1
26 – 33	32	30.5
34 – 41	9	8.6
42 – 50	4	3.8
Total	105	100.0

Source: Field work, (2017)

Table 2 shows that 60 (57.1%) respondents were in age range 18-25 whiles 4 (3.8%) respondents were in the age range of 42-50. It can therefore be concluded that majority of the nurses were in the age range of 18-25. This was partly because majority of the respondents were student nurses on clinical internship and nurses who were doing their national service in the selected

health facilities. This group of nurses are usually younger as described in the above stated age range.

The table 3 below presents the marital status of the respondents in frequency and percentage. The marital status is described as Married, Never married and cohabiting.

Table 3-*Marital Status of Nurses*

Marital Status	Frequency	Percentage (%)
Never Married	81	77.1
Married	22	21.0
Co-habiting	2	1.9
Total	105	100.0

Source: Field work, (2017)

Table 3 shows that 81 (77.1%) respondents were unmarried whiles 2 (1.9%) respondents were living together with their partners. Therefore, it can be concluded that majority of respondents were never married. This could partly be attributed to the fact that majority of the respondents were student nurses on clinical internship and nurses who were doing their national service and belongs to the younger group in terms in age range distribution.

Table 4 below shows frequency and percentage distribution of respondents by type of nursing. The type of nursing was characterised by General Health Nursing, Psychiatric Nursing, Midwifery, Public Health Nursing and Community Health Nursing.

Table 4-*Distribution of Respondents by Type of Nursing*

Type of Nursing	Frequency	Percentage (%)
General Health Nursing	53	50.5
Psychiatric Nursing	8	7.6
Midwifery	34	32.4
Public Health Nursing	4	3.8
Community Health Nursing	6	5.7
Total	105	100.0

Source: Field work, (2017)

Table 4 shows that 53 (50.5%) respondents were general nurses whiles 4 (3.8%) respondents were public health nurses. It can be concluded that majority of respondents were General Health Nurses while the minority of the respondents are Public Health Nurses. The pattern of the distribution explains the fact that the General Health Nursing forms the majority of the nursing profession in Ghana are also found in almost all departments and units in most hospital facilities.

Table 5 below presents the frequency and percentage distribution of income satisfaction levels of nurses. The satisfaction levels include Satisfied, Fairly Satisfied, and Not Satisfied.

Table 5-*Distribution on Income Satisfaction Levels of Nurses*

Income Level Satisfaction	Frequency	Percentage (%)
Satisfied	28	26.7
Fairly Satisfied	32	30.5
Not Satisfied	45	42.9
Total	105	100.0

Source: Field work, (2017)

Table 5 shows that 45 nurses (42.9%) were not satisfied with their income whiles 28 (26.7%) respondents were satisfied with their income. It can be seen that more of nurses were not satisfied with their income. This income satisfaction pattern can explain the fact that majority of the respondents who were student nurses on clinical internship and nurses who were doing their national service do not actually receive salaries but rather students and national service allowances as a form of token for their services.

The correlation between stress and quality of life:

Hypothesis one

Quality of life of nurses of HIV/AIDS has a negative correlation with stress

This hypothesis sought to establish the correlation between Quality of Life (QOL) and Stress. Before testing this hypothesis, a descriptive statistic of the responses for stress and Quality of Life (QOL) was computed. The responses are presented in Tables 6 and 7.

Table 6 presents distribution of responses in stress among nurses.

Table 6-*Stress Level of Responses* N=105

Statement	Mean	Std. Dev.
I found it hard to calm down after getting agitated	0.76	0.86
I tended to over-react to situations	0.92	0.86
I felt that I was using a lot of nervous energy	0.90	1.01
I felt myself getting agitated	0.86	0.89
I found it difficult to relax	0.90	0.93
I was intolerant of anything that kept me from getting on with anything that I was doing	0.97	0.90
I felt that I was rather sensitive	1.34	0.96

Source: Field work, (2017)

Table 6 shows the means and standard deviations of the responses of the participants indicating their level of stress. The scoring of the questionnaire ranged from 0 to 3 and as such a higher mean closer to 3 implies a higher level of stress and vice versa. From the table it can be seen that the stress levels of the respondents were low since most of the mean scores were less than 1.0. It is however shown that with a mean of 1.34 and a standard deviation of 0.96, the statement 'I felt that I was rather sensitive' was experienced by most of the respondents. Overall, it can be inferred from the table that the respondents experienced low levels of stress. The table shows the means and standard deviations of the responses of the participants showing their level of stress. The scoring of the questionnaire ranged from 0 to 3 and as such a higher mean closer to 3 implies a higher level of stress and vice versa. From the table it can be seen that the stress levels of the respondents were low since most of the mean scores were less than 1.0. It is however shown that with a mean of 1.34 and a standard deviation of 0.96, the statement 'I felt that I was rather sensitive' was experienced by most of the respondents. Overall, it can be inferred from the table that the respondents experienced low levels of stress.

The means and standard deviations distribution of responses in the Quality of life (QOL) of the respondents is shown in Table 7 below.

Table 7-*Distribution of responses on Quality of Life of nurses*

Question	Mean	Std. Dev.
How would you rate your quality of life?	4.03	0.78
How satisfied are you with your health?	3.99	0.85
How much are you bothered by any HIV/AIDS work-related physical problems?	2.93	1.36
How much do you enjoy life?	3.50	0.96
To what extent do you feel your life to be meaningful?	3.67	1.25
How much do you fear the future?	2.41	1.35
How much do you worry about death?	2.48	1.44
How well are you able to concentrate?	3.48	1.11
How safe do you feel in your work as HIV/AIDS care provider?	3.16	1.11
How healthy is your physical environment?	3.41	1.12
Do you have enough energy for everyday life?	3.60	1.27
Are you able to accept your bodily appearance?	3.70	1.10
Have you enough money to meet your needs?	2.87	1.13
To what extent do you feel accepted by the people you know?	3.37	1.13
How available to you is the information that you need in your day-to-day life?	3.27	1.09
To what extent do you have the opportunity for leisure activities?	2.79	1.13

Table 7: Continued

How well are you able to get around?	3.62	0.85
How satisfied are you with your sleep?	3.44	1.03
How satisfied are you with your ability to perform your daily living activities?	3.78	0.9`
How satisfied are you with your capacity for work?	3.70	0.96
How satisfied are you with yourself	3.92	1.04
How satisfied are you with your personal relationships	3.90	0.99
How satisfied are you with your sex life?	3.82	1.04
How satisfied are you with the support you get from your friends and co-workers?	3.46	0.97
How satisfied are you with the conditions of your living place?	3.49	1.09
How satisfied are you with your access to health services?	3.58	1.02
How satisfied are you with your transport?	3.19	1.13
How often do you have negative feelings such as blue mood, despair, anxiety, depression?	2.92	1.02

The scoring of this portion of the questionnaire ranged from 1 to 5. It is seen from the table that the mean scores for most of the items were beyond 3.0. It is clear that the responses for how the respondents rated their quality of life recorded the highest mean of 4.03 and standard deviation of 0.78. This implies that most of the respondents viewed their quality of life as good.

This is confirmed in the frequency and percentage analysis of the ratings of the respondents concerning their quality of life. This is shown in Table 8.

Table 8-*Overall Quality of Life of Respondents*

Rating	Frequency	Percentage
Poor	4	3.8
Neither Poor nor Good	18	17.1
Good	54	51.4
Very Good	29	27.7
Total	105	100

It can be seen from table 8 that majority of the respondents (51.4%) rated their quality of life as good while only four respondents viewed their quality of life as poor.

Table 9-*Pearson Correlation Matrix of Stress and Quality of Life*

		STRESS	QOL
QOL	Pearson Correlation	-.180	1
	Sig. (2-tailed)	.066	
	N	105	105

P>0.05 (2-tailed)

The table shows that there was no statistically significant negative correlation between Quality of Life and Stress (r= -.180; n=105; p>0.05). Even though the correlation was negative, it was not found to be statistically significant. This implies that the relationship between the stress levels of the respondents and their quality of life is not significant. Therefore, causality cannot be assumed.

From the results, the hypothesis that states that there is a significant negative correlation between Quality of life and Stress among nurses caring for HIV/AIDS was not supported by the data.

The correlation between anxiety and quality of life:

Hypothesis Two

Quality of life of nurses of HIV/AIDS has a negative correlation with anxiety

Before testing this hypothesis, a descriptive statistic of the responses for anxiety was computed. The results are presented in Table 10 below.

Table 10-*Levels of Anxiety of Respondents*

Statement	Mean	Std. Dev.
My mouth feels dry after a hard day's work	1.08	0.94
I experienced breathing difficulty (eg, excessive rapid breathing, breathlessness in the absence of physical exertion)	0.66	0.95
I experienced trembling (eg, in the hands)	0.70	0.96
I was worried about situations on which I might panic and make a fool of myself	1.05	1.05
I felt I was close to panic	0.83	0.84
I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing beat)	1.00	1.05
I felt scared without any good reason	0.86	0.87

The scoring of this portion of the questionnaire ranged from 0 to 3. A mean score closer to 3 implies a high level of anxiety. It can be seen from the table 10 that most of the statements recorded means less than 1.0. The statement 'My mouth feels dry after a hard day's work' recorded the highest mean of 1.08 and a standard deviation of 0.94. Thus, most of the respondents subscribed to

this question item. Overall, it can be inferred from the results in the table that the respondents had low levels of anxiety.

The Pearson Correlation table below shows the relationship between anxiety and quality of life.

Table 11-*Pearson Correlation Matrix of Anxiety and Quality of Life*

		ANXIETY	QOL
QOL	Pearson Correlation	-.253**	1
	Sig. (2-tailed)	.009	
	N	105	105

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

The table 11 shows that there was a statistically significant negative correlation between Quality of Life and Anxiety (r= -.253; n= 105; p<0.05). There is an inverse relationship between quality of life and Anxiety among nurses caring for HIV/AIDS patients. This means the higher the quality of life, the lower the anxiety among nurses caring for HIV/AIDS patients. In contrast, the lower the quality of life, the higher the anxiety among nurses caring HIV/AIDS patients. Hence, the hypothesis that states there is a negative correlation between quality of life and anxiety among nurses caring for HIV/AIDS patients was supported by this data.

This result indicates that the hypothesis should be accepted since p value is less than 0.05. Since it was realised from the descriptive statistics that respondents had low levels of anxiety and good quality of life (Table …), the results for the correlation analysis was understandable.

Hypothesis Three

Quality of life of nurses of HIV/AIDS has a negative correlation with depression. To accurately test this hypothesis, descriptive statistics analysis was carried out for the responses concerning depression.

Table 12 shows a descriptive presentation of the trend of responses on the levels of depression of respondents.

Table 12-*Trend of responses in Levels of Depression of respondents*

Statement	Mean	Std. Dev.
I couldn't seem to experience any positive feeling at all	0.81	0.81
I found it difficult to work up the initiative to do things	0.89	0.84
I felt like I had nothing to look forward to	0.70	0.96
I felt down-hearted and sad	1.10	0.90
I was unable to become enthusiastic about anything	0.94	0.92
I felt I wasn't worth much as a person	0.69	0.94
I felt that life was meaningless	0.63	0.94

The scoring guide used for of this section of the instrument ranged from 0 to 3. A mean score closer to 3 implies a high level of anxiety. It can be seen from the table 12 that most of the statements recorded means less than 1.0. The only statement which recorded a mean score more than 1.0 was 'I felt down-hearted and sad (M=1.10, SD=0.90)'. Therefore, it can be inferred from the results in the table that the respondents had low levels of depression.

The result of the correlation analysis of the relationship between depression and quality of life is shown in Table 13.

Table 13-*Pearson Correlation Matrix of Depression and Quality of Life*

		DEPRESSION	QOL
QOL	Pearson Correlation	-.260**	1
	Sig. (2-tailed)	.007	
	N	105	105

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

Table 13 shows that there was statistically significant negative correlation between Quality of Life and Depression (r= -0.260; n=105; p<0.05). The result shows an inverse relationship between quality of life and depression. This means that the higher the quality of life, the lower the depression among nurses caring for HIV/AIDS patients. On the other hand, the lower the quality of life, the higher the depression among nurses caring for HIV/AIDS patients. Hence, the hypothesis that states there is a negative correlation between quality of life and depression among nurses caring for HIV/AIDS patients was supported by this data.

The result is an indication that the hypothesis should be accepted since p value is less than 0.05. The implication of this result is that, nurses with high quality of life caring for HIV/AIDS patients have less depression whiles nurses with low quality of life caring for HIV/AIDS patients experience high depression. From the descriptive statistics presented, the results could be explained to be because the respondents had low levels of depression and good quality of life.

Hypothesis Four

Qualities of Life of nurses of HIV/AIDS has a positive correlation with social support.

Descriptive statistics analysis was computed for respondents' level of social support. The results are shown in Table 14.

Table 14 shows descriptive analysis of the trend of responses of the levels of social support of the respondents.

Table 14-*Trend in Responses of Levels of Social Support*

Statement	Mean	Std. Dev.
There is a special person who is around when I am in need	4.67	2.07
There is a special person with whom I can share my joys and sorrows	4.79	2.01
My family really tries to help me	5.08	1.96
I get the emotional help and support I need from my family	4.99	1.94
I have a special person who is a real source of comfort to me	4.77	2.04
My friends really try to help me	4.04	1.89
I can count on my friends when things go wrong	3.40	1.86
I can talk about my problems with my family	4.41	1.96
I have friends with whom I can share my joys and sorrows	4.06	1.99
There is a special person in my life who cares about my feelings	4.79	2.14
My family is willing to help me make decisions	4.72	1.95
I can talk about my problems with my friends	3.70	1.99

The questionnaire for measuring social support was on a scale of 1 to 7. A mean score closer to 7.0 implies that most of the respondents agreed to the statement. It is seen in Table 14 that most of the items had mean scores more than 4.0. Thus, most of the respondents agreed to most of the statements. Specifically, the statement 'my family really tries to help me' recorded a mean of 5.08 and a standard deviation of 1.96. This implies that the statement had higher levels of agreement among the respondents.

The relationship between nurses' level of social support and quality of life is shown in Table 15.

Table 15-*Pearson Correlation Matrix of Social Support (SS) and Quality of Life*

		SS	QOL
QOL	Pearson Correlation	.503**	1
	Sig. (2-tailed)	.000	
	N	105	105

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

The table 15 shows that there was a statistically significant positive correlation between social support and quality of life ($r= 0.503$; $n=105$; $p<0.05$). The result indicates that nurses with higher social support and caring for HIV/AIDS patients have higher quality of life. On the other hand, nurses with low social support and caring for HIV/AIDS patients have low quality of life. Hence, the hypothesis that states there is a positive correlation between social support and quality of life among nurses caring for HIV/AIDS patients is backed by this data.

This result indicates that the hypothesis should be accepted since p value is less than 0.05. Its implication is that nurses with low social support caring for HIV/AIDS patients have low quality of life whereas nurse with high social support caring for HIV/AIDS patients have high quality of life. The descriptive statistics analysis showed that the respondents had good quality of life and high level of social support. This explains the statistically significant positive relationship found between social support and quality of life.

Hypothesis Five

There is a significant relationship between demographic variables and quality of life of nurses of HIV/AIDS.

Table 16 below shows the relationship between demographic variables and quality of life of respondents.

Table 16-*Multiple Regression of demographic Variables and Quality of Life*

Demographic variables		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	104.734	11.625		9.010	.000
	Gender	-3.777	3.824	-.102	-.988	.326
	Age	-.105	.271	-.040	-.388	.699
	Marital Status	1.048	3.612	.031	.290	.772
	Type of Nursing	.584	1.346	.044	.434	.666
	Income Level Satisfaction	-1.144	1.951	-.060	-.586	.559

Dependent Variable: Quality of Life Compute

Table 16 shows the significance in relationship between demographic variables and quality of life. From table 16, gender, age, marital status, type of nursing and income level satisfaction have significant values of 0.33, 0.70, 0.77, 0.67 and 0.56 respectively which are greater than 0.05. This indicates that none of the variables is significant. Therefore, there is no statistically significant relationship between demographic variables and quality of life. The hypothesis that there is a significant relationship between demographic variables and quality of life among nurses caring for PLWHA is rejected for the null hypothesis: there is no statistically significant relationship between demographic variables and quality of life among nurses caring for PLWHA.

This implies that, no personal characteristics (age, gender, type of profession, marital status, and income level) have any good or adverse impact on the quality of life of nurses caring for PLWHA.

Hypothesis Six

Social support will moderate psychological distress and quality of life of nurses of HIV/AIDS patients.

In testing this hypothesis, moderation analysis was computed for the data. In doing this, the social support, which was on a continuous scale, had to be converted to a categorical scale. Therefore, dummy coding was done for the social support scale. After this the moderation analysis was computed for how social support moderates the impact of psychological distress on quality of life. Table 17 shows the moderation of social support on psychological distress and quality of life.

Table 17-*Model Summary of Moderator Analysis of social support on psychological Variables and Quality of Life*

				Std. Error of	Change Statistics				
M	R	R Square	Adjusted R Square	the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.434[a]	.188	.172	13.846	.188	11.831	2	102	.000
2	.471[b]	.222	.199	13.623	.034	4.369	1	101	.039

From the model summary above as shown in Table 17, model 2, which is the model that incorporates social support as the interaction term is the model to be considered for interpretation. Table 17 shows that a change in R^2 is 3.4% (0.034 x 100= 3.4%), which is a percentage increase in the variation explained by the addition of the interaction term. The table shows that this increase is statistically significant ($p< 0.05$). Therefore, it can be concluded that social support moderates the relationship between psychological distress and quality of life. Therefore, it implies that the level of impact that stress, anxiety and depression have on quality of life can be moderated by the level of social support received by the nurses. Thus, a change in social support will affect the relationship between psychological distress and quality of life.

Discussion of Research Findings

This section discusses the findings of the study in relation to;

1. the relationship between stress and quality of life among nurses caring for PLWHA.

2. the relationship between anxiety and quality of life among nurses caring for PLWHA.
3. the relationship between depression and quality of life among nurses caring for PLWHA.
4. the relationship between social support and quality of life among nurses caring for PLWHA.
5. the relationship between demographic variables and quality of life among nurses caring for PLWHA.
6. social support as a moderator of psychological distress and quality of life among nurses caring for PLWHA.

The Relationship between Stress and Quality of Life among Nurses caring for PLWHA

The first research hypothesis was formulated to ascertain whether there was a negative correlation between stress and quality of life among nurses caring for PLWHA. The result shows that even though stress has a negative correlation with quality of life of nurses caring for PLWHA, it was not statistically significant. This means that the stress levels of nurses who care for PLWHA does not have any significant negative effect on their quality of life. Thus, HIV/AIDS work-related stress in clinical practice among nurses caring for PLWHA, have no significant impairment on their physical, psychological, social relationships and environmental health.

This study disagrees with the findings of a cross-sectional study conducted by Davhana-Maselesele and Igumbor (2008) to assess the impact of caring for persons living with HIV/AIDS on the mental health (measured against level of burnout, stress and depression) among 174 conveniently

sampled nurses from five (5) hospitals from the Limpopo province. Low quality of life was reported among majority (more than 80% of them) of the nurses were reported to have experienced distress by their difficulties in coping with the number of HIV/AIDS related deaths recorded under their care. These distresses were characterized by the sense of powerless; since no matter the kind of care offered, the patients would still die.

The reason for the disparity between these two studies could be the social support factor. Social support was recorded high among nurses caring for PLWHA in Cape Coast Metropolis, found to have statistically significant positive relationship with their quality of life and also moderated the relationship between psychological distress and quality of life of the nurses caring for PLWHA. The social support of nurses from Limpopo province were however not assessed but was rather reported that the nurses were unable to cope with their stress levels. This could partly be the reason why stress was found to have negative correlation with their quality of life. Chances were that if the social support base of nurses caring for PLWHA in Cape Coast Metropolis were poor, the relational effect of their stress levels would have adversely impacted on their quality of life as it was found in Davhana-Maselesele and Igumbor's (2008) study.

This finding is also congruent with the finding of a study conducted by Fako, Wilson, Linn and Forcheh, (2013) to assess the relationship of HIV/AIDS care, coping strategies and work environmental stress for nurses working in an African country (Botswana) with a significant epidemic. Data for the study was reported to have been obtained through questionnaires completed by a randomly sampled 201 nurses working in different types of health facilities in rural and

urban areas of Botswana. The results show that 65% of the nurses frequently provided care to client with HIV/AIDS. Only 35% of the nurses provided care to clients with HIV/AIDS infrequently. The study further revealed that nurses who often worked with patients infected with HIV reported significantly ($p<.05$) more likely to include taking food supplement; an implication for professional stress and burn out among HIV/AIDS caregivers in developing societies. The study also found that nurses who infrequently provided HIV/AIDS care (24%) were much less likely to experience high levels of role demand stress than all other nurses. The study added, however, that greater participation from nurses and families in caring for patients with HIV/AIDS does not produce significant reported stress increment. In other words, greater team work among nurses in caring for HIV/AIDS patients reduces stress levels experienced by nurses.

The relationship between anxiety and quality of life among nurses caring for PLWHA

The second hypothesis examined the relationship between anxiety and quality of life among nurses caring for PLWHA. The result shows that there is a statistically significant negative correlation Anxiety between anxiety and quality of life ($r= -0.253$; $n= 105$; $p<0.05$) among respondents. This means that nurses who report high level of anxiety associated with caring for PLWHA have low/poor quality of life while nurses with low level of anxiety associated with caring for PLWHA have high/good quality of life.

This finding is consistent with the finding of a study by An, Gao, Ma, and Xiao (2015) who conducted a cross-sectional survey to assess the relationship between depression, anxiety, and quality of life among female

nurses in Shaanxi province. 1700 nurses were recruited, 1570 of whom completed questionnaires. 911 (58%) participants had state anxiety, whereas trait anxiety was reported in 780 (50%) participants. All subscales of quality of life (SF-36) scores, except physical function, of the nurses with high anxiety scores were significantly lower than those of the nurses with low anxiety scores (p=0·0003). Significant effects of social anxiety (β=59·760; p=0·029) and trait anxiety (β=57·908, p=0·027) were reported in overall quality of life.

In line with An, Gao, Ma and Xiao's (2015) findings, nurses caring for PLWHA experience significant impairment in their quality of life as a result of the anxiety associated with the clinical role as a health care provider.

This study is also consistent with a descriptive, comparative quantitative study done in Sweden by Röndahl, Innala and Carlsson (2003), which describes the attitudes nurses and nursing students have towards HIV-infected persons. The study included nurses and assistant nurses from one infectious disease clinic in central Sweden and reclaimed that the fear of contagion with HIV still exist among nurses because, among other things, is their insecurity. The study revealed that 36% of the professional nurses and 26% of the student nurses who participated in the study would refrain from caring for HIV-infected patients if that possibility existed. The study also stated that despite the fear, the Swedish nurses and nursing students experience a big empathy and strong attachments for the patients. The authors in this study believe that when the nurses absorb the patient's problems, it can affect the nurses psychologically in the long term.

Series of other consistent literature includes Buve, Foaster, Mbwili, Mungo, Tollenare, and Zeko (1994), who reported that in Zambia, mortality

rates among female nurses who provide care for PLWHA in two hospitals, rose from 2 per 1,000 in 1980-85 to 26.7 per 1,000 in 1989-91; adding that mortality rate among nurses caring for PLWHA has caused more fear and anxiety in those currently in staff. They further estimated that absenteeism can take up 50% of the work time of a health worker living with AIDS in their final year of life. In Botswana, it was calculated that, if the average infected health worker lost 60 working days in a year, this would translate in the public health sector to the loss of 23,000 person days in 2003 alone (Abt Associates South Africa Inc. 2000).

The relationship between depression and quality of life among nurses caring for PLWHA.

The third hypothesis ascertained whether depression has a negative relationship with quality of life among nurses caring for PLWHA. The result shows that there is statistically significant negative correlation between Quality of Life and Depression ($r= -0.260$; $n=105$; $p<0.05$). This inverse relationship means that the higher the quality of life, the lower the level of depression among nurses caring for HIV/AIDS patients. On the other hand, the lower the quality of life, the higher the level depression among nurses caring for HIV/AIDS patients.

This finding is consistent with the findings of a study by An, Gao, Ma, and Xiao (2015) who conducted a cross-sectional survey to assess the relationship between depression, anxiety, and quality of life among female nurses in Shaanxi province. 1700 nurses were recruited, 1570 of whom completed questionnaires. 389 (25%) of 1570 participants had depression. All subscales of quality of life (SF-36) scores of nurses who had depression were

significantly lower than those of nurses without depression (p=0·003). Depression was significantly associated with poor overall quality of life (β=107·874; p=0·0005) and all other seven domains of quality of life (p=0·016).

The study is also consistent with a study by Davhana-Maselesele and Igumbor (2008) who conducted a cross-sectional study among 174 conveniently sampled nurses from five (5) hospitals from the Limpopo province to assess the impact of caring for persons living with HIV/AIDS on the mental health (measured against level of burnout, stress and depression) of nurses. In the same study using the 21-item Beck Depression Inventory with a scale of 0 to 3, a Cronbach's Alpha of 0.96 was obtained and the mean total score was 26.70 (SD = 20.25). Categorizing the total scores into the different levels of depression showed that 34% of the 70 nurses who responded to all of the 21 items suffered extreme depression and 55% of them suffered from moderate to extreme depression. The scores ranged from 0 to 63. Sadness had the highest mean score (1.61) followed by fatigability (1.58), low level of energy (1.56) and insomnia (1.52). Expectation of punishment (0.78), pessimism (0.88) and ideation of suicide (0.89) had the lowest mean scores. Insomnia, pessimism, and suicidal ideation are said to be elements of quality of life. These elements were captured in the scale of quality of life as energy for everyday life, sleep satisfaction, worrying about death, and sense of worth. It can therefore be deduced that since patient scored low in all of these elements, their quality of life is as well compromised.

Nagaraja, Reddy, Ravishankar, Jagadisha and Muninarayana also conducted a study in 2015 among nursing students who have had experience of working in an HIV/AIDS department to assess the prevalence of depression and

its associated factors. Out of the 430 stratified sampled students, the overall prevalence of sadness was found to be 47 (10.9%), among those with symptoms of pessimism is 30 (7%), past failure 15 (3.5%), loss of pleasure 24 (5.6%), and suicidal thoughts are 21(4.9%). Majority of students had mild to moderate degree of depression. This study showed that among 395 females, 45 are very close to sadness of the depressed and among 352 are very close to sadness. According to this study, 18 girls had decided to harm themselves or had suicidal thoughts. The prevalence of depression was significantly more among those with family problems and family history of depression. Much of the Literature in the study examined the extent to which risk factors such as negative reactivity, sadness, pessimism, low level of social engagement, negative cognitive style, low self-esteem, low trust belief in others predispose adolescents to experience increasing level of loneliness, presumption of failure in their life or feel loss of pleasure, guilty feeling, punishment and suicidal thoughts.

Relationship between social support and quality of life among nurses caring for PLWHA.

This hypothesis sought to ascertain whether social support will have positive correlation with quality of life among nurses caring for PLWHA.

The result shows that social support has statistically significant positive correlation with quality of life among nurses caring for PLWHA ($r=0.503$; $n=105$; $p<0.05$). This means that good social support among nurses who care for HIV/AIDS patients have corresponding good quality of life. On the other hand, nurses who care for PLWHA with poor social support also have corresponding poor quality of life.

The study is consistent with the findings of An, Gao, Ma, and Xiao (2015) who reports findings of a cross-sectional study conducted to assess the impact of the AIDS epidemic on medical care systems and service providers in China using a representative sample of 478 doctors, nurses, and lab technicians working with people living with HIV/AIDS (PLWHA). The study reports that Those who reported better institutional support for AIDS care in their work, however, tended to report a lower level of negative impact on their life (β = 0.13). The providers who reported less institutional support (β = −0.10) and were older (β = 0.14) experienced a higher level of internalized shame for their work with PLWHA.

Good institutional support will promote a positive psychological state and prevent burn out and departure from the workforce. This finding is also consistent with studies in other countries reporting the importance of adequate support with AIDS health workers in reducing personal distress and the role of that distress in reducing dropout (Ross, Greenfield, and Bennett, 1999; Claxton, Catalan, and Burgess, 1998). Several studies have also shown that social support as a coping strategy has a positive effect on well-being and job satisfaction among nurses caring for PLWHA (Burke & Greenglass 2001).

Relationship between demographic variables and quality of life among nurses caring for PLWHA.

This hypothesis explored whether there is a statistically significant relationship between demographic variables and quality of life among nurses caring for PLWHA. The result shows that there is no statistically significant relationship between demographic variables and quality of life among nurses who care for HIV/AIDS patients (r=0.33, 0.70, 0.77, 0.67, & 0.56 for gender,

age, marital status, type of nursing and income level satisfaction respectively). This implies that, no personal characteristics (age, gender, type of profession, marital status, and income level) have any good or adverse impact on the quality of life of nurses caring for PLWHA.

Erin, Woodhead, Northrop, And Edelstein, (2014) also revealed similar findings when they investigated the relations between job demands (occupational and personal stress), job resources (sources and functions of social support), and burnout in a sample of nursing staff at a long-term care facility (N = 250). Hierarchical linear regression analyses revealed zero-order correlations between demographic variables; sex, age, education, position, occupational stress, and personal stress, with the three components of burnout. Older age was associated with less emotional exhaustion and depersonalization.

Social support as a moderator of psychological distress and quality of life among nurses caring for PLWHA.

The hypothesis explored whether social support moderates the relationship between psychological distress and quality of life among nurses who care for PLWHA. The result showed that social support moderates the relationship between psychological variables and quality of life (change in R^2 is 0.034 x 100 = 3.4%; $p<0.05$). This implies that, social support interferes interrupts, or alters the interaction between the psychological variables (stress, anxiety and depression) and quality of life among nurses who provide care for PLWHA.

This finding is consistent with a cross-sectional survey conducted by Li et al (2017) to explore the moderating effects of coping strategies on the relationship between work stress and job performance among 852 nurses from

four tertiary hospitals in Heilongjiang Province in China. The participants of the study were predominantly female (96.6%) with average age of 28years while majority of them (54.5%) were single, separated or divorced. The results showed that three subscales of work stress were negatively related to job performance. Positive coping strategies moderated patient care and job performance while negative coping strategies moderated workload and time and performance, and between working environment and resources and performance. It was concluded that positive coping strategies reduce or buffer the negative effects of work stress on job performance and negative coping strategies increased the negative effects. It was recommended that nursing managers should employ multiple coping measures to help nurses reduce work-related psychological distress to improve their quality of life.

Chapter Summary

In this chapter, the results of the analyses were discussed by considering each hypothesis. The relationships between pairs of variables studied were interpreted and discussed. These relationships ranged from significant to non-significant ones. All the psychological variables were found to have significant negative relationships with quality of life among nurses caring for PLWHA. Social support was found to have positive relationship with quality of life. However, social support was found not have played any moderating effect between the psychological factors and quality of life among nurses caring for PLWHA. Demographic variables were also found to have no relationship with quality of life.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of the Study

The study was descriptive in nature and used a cross-sectional correlation survey to explore the correlation between psychosocial factors and social support on quality of life among nurses who take care of HIV/AIDS patients in the Cape Coast Metropolis of Ghana. Principally, the study focused on stress, anxiety, depression, social support and quality of life as well as their relationships. The relationship between stress and quality of life, anxiety and quality of life, depression and quality of life, demographic variables and quality of life, and social support and quality of life were explored. Lastly, the moderating effect of social support between psychological distress and quality of life was also ascertained.

The study was conducted in two (2) hospitals in the Cape Coast Metropolis of the Central Region of Ghana. Two staged sampling techniques; purposive and census sampling, were used to recruit 105 respondents, aged between 18 and 50 for the study. Respondents above the age of 60 years and nurses who are not caring for PLWHA were not part of the study.

Summary of Key Findings

The hypothesis formulated in this study focused on whether there are significant relationships among the variables; stress, anxiety, depression, social support, demographic characteristics, and quality of life. The main purpose of this study sought to ascertain the correlation between psychological distress and

quality of life among nurses who provide care for PLWHA in Ghana. The following are the main findings drawn from the data analysis:

1. The study established that stress had no statistical relationship with the overall quality of life among nurses caring for PLWHA in Cape Coast metropolis. The relationship between stress and quality of life showed no significant relation.
2. The study showed a relationship between anxiety and the overall quality of life among nurses caring for PLWHA in Cape Coast metropolis. The relationship between anxiety and quality of life was found to be negative.
3. According to the study, the relationship between depression and overall quality of life among nurses caring for PLWHA was negatively correlated statistically.
4. The study revealed a statistical relationship between social support and overall quality of life of nurses caring for PLWHA in the Cape Coast Metropolis. The relationship between social support and quality of life was found to be a positive relationship.
5. Demographic variables, according to the study, had no statistical relationship with the overall quality of life of nurses caring for PLWHA in the Cape Coast Metropolis.
6. The study showed that there was a moderating effect of social support on the relationship between psychological distress and overall quality of life among nurses caring for PLWHA in the Cape Coast Metropolis.

Conclusions

Caregiving for the chronically ill is often an emotionally intense and physically demanding experience which is characterised by persistent stressful demands (Land & Hudson, 2002. pg.147). These tasks may be more burdensome because of the complexity of illness as PLWHA often require multiple services to promote disease management. The concept burden draws attention to the caregivers' appraisal of the disruptions caused by the caregiving activities, and the effects of these disruptions on her or his life (Ramathuba, & Davhana-Maselesele, 2013). However, to know the relationships among these stresses, the available social supports and the quality of life of the nurses who care for PLWHA, this study was conducted.

This study has helped in revealing the indicators of the burden in caring for PLWHA and their bearing on quality of life of nurses caring for PLWHA in the Cape Coast Metropolis. The indicators identified in this study include stress, anxiety, depression and social support. Stress, anxiety and depression have been found to have detrimental effects on quality of life of nurses in Cape Coast who provide care and support to HIV/AIDS patients. Some of the end results of the compromised quality of life of nurses caring for PLWHA were reported by some studies as absenteeism, shortage of staff as a result of sickness, deaths, and migration of staff to Europe for better working conditions (Huddart, Furth, Lyons, 2004; Buchan and Dovlo, 2004). Social support, however, was found by this study to have a positive correlation with quality of life of nurses caring for PLWHA. Social support was found to have a moderating effect on the detrimental relationship between the psychological distress and quality of life.

Therefore, quality amount of it could strengthen the quality of life of nurses as it buffers the effect psychological distress has on quality of life.

The findings of this study have therefore provided evidence base report for policy makers to ensure capacity building for nurses caring for PLWHA in the area of social support and improved working conditions, to maintain, if not restore the quality of life of nurses caring for PLWHA.

Recommendations

The following recommendations were made based on the study with the expectation that they could help improve upon the quality of life and the negative effect of psychological distress among nurses who provide care and support for PLWHA in the Cape Coast Metropolis:

It is recommended that, salaries/remunerations for nurses be reviewed and improved since majority of the respondents (42.9%) reported of dissatisfied income level. This, I believe will enhance their financial resources to meet their financial needs.

It is recommended that hospitals should be resourced with Clinical Health Psychologists to provide psychological interventions to nurses with or prone to psychological disorders. This is particularly important to help provide scientific and evidence based therapeutic interventions to outwith, if not restore, their compromised quality of life.

It is also worthy of note that in the quest of the nurses to provide emotional needs to their patients, they end up getting attached to the patients' needs that they tend to forget to care for themselves. This was noted as one of the ways nurses break down when their efforts seem not to have solved their patients' problems. I must add that caring for PLWHA requires a

multidisciplinary team. It is therefore recommended that facilities that provide care for PLWHA should be resourced with the right number of multidisciplinary team; including enough nurses, clinical and health psychologists, dieticians, physicians, laboratory technicians, and social workers—to provide care and support to both staff and patients.

It is also recommended logistics for working be made readily available to facilitate provision of care for PLWHA. This was found to cause a number of frustrations among nurses which eventually affected work output.

More so, it also recommended that comprehensive educational programmes be organised for health care workers who do not care for PLWHA. It was found that lack of knowledge about HIV/AIDS among non-HIV/AIDS care providers cause them to stigmatize nurses caring for PLWHA. This was found to demoralize nurses and affects their attitudes.

Finally, future research should target a larger group to make a fair representation of national report on the study.

Implication for clinical health practice

Clinical practitioners who care for the persons living with HIV/AIDS should utilize social support system to safeguard their own health while caring for their patients. Practitioners should also work as a team rather than leaving the work for few to perform. This has been found by to cause a psychological drain on nurses and clinicians caring for PLWHA.

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APPENDICES

APPENDIX A

QUESTIONNAIRE

UNIVERSITY OF CAPE COAST

DEPARTMENT OF EDUCATIONAL FOUNDATION

INFORMED CONSENT FORM

Title: Psychological Distress and Social Support on Quality of Life of Nurses of HIV/AIDS in Cape Coast Metropolis

Principal Investigator: Mr. Dominic Kobina Forson

Address: Faculty of Educational Foundations, Department of Psychology and Education.

General Information about Research

The main purpose of this study is to examine the psychological distress and perceived social support on quality of life of Nurses of HIV/AIDS in Central Region using Cape Coast as a case study. The Depression Anxiety Stress Scale (DASS – 21), Multidimensional scale for perceived social support and the World Health Organisation Quality of Life Scale will be used to assess the psychological distress, perceived social support and the Quality of Life of research volunteers in Central Region. Answering the questions will take about 15 minutes to complete.

To validate these hypotheses, your participation in this research is highly invited. If you accept this invitation, you would be required to complete the questionnaires which will be supervised by Mr. Dominic Kobina Forson, and Ms Agatha Marcus-Kwofie.

You are invited to take part in this study because your role in health care delivery is very crucial and the nature of it could have your quality of implicated. I will therefore want to find out how your quality of life fares with the distress and social support. This will inform policy makers on the reality of the psychological distress and social support on your quality of life as a professional care giver of HIV/AIDS patients.

If you do not wish to answer any of the questions included in the survey, you may skip them and move on to the next question. The information recorded is considered confidential, and no one else except the principal investigator and the two thesis supervisors will have access to your response.

Possible Risks and Discomforts

During your participation in completing this questionnaire, the discomforts and harm or dangers to you are anticipated not to be greater than those you find in your own daily contacts with others. Sometimes people feel nervous when completing a questionnaire. You are free to leave the interview at any time if you feel uncomfortable.

Also, you are free to stop participation in the study at any time.

Possible Benefits

Others may benefit from your participation in the study because the findings from this research will help practitioners, policy makers, and other authorities to structure health care interventions, do risks assessments and provide right social support for health professionals who care for persons living with HIV/AIDS.

Alternatives to Participation

The alternative/other choice is not to participate in this study.

Confidentiality

The information you give to the researcher in this study will be kept confidential. Your name will not be used in any reports or advertisements. Your name will appear only on this consent form which will be kept in a locked file cabinet by the investigator conducting this study. The survey results will be analysed by researcher alone and no one will have access to the information without your consent.

Compensation

There are no direct benefits from being in this study.

Additional Cost

The only cost to you is the time you spend completing the survey which we estimate to be no longer than 15 minutes.

Voluntary Participation and Right to Leave the Research

Taking part in this study is voluntary-it is your free choice. You may choose not to take part at all. If you start the study, you can stop at any time. Leaving the study will not result in any penalty or loss of any benefits you would otherwise receive.

The University of Cape Coast Institutional Review Board for Ethical Treatment of Human Subjects is the committee that protects the rights of people in research studies. This review board may study records from time to time to be sure that people in research studies are being treated fairly and that the study is being carried out as planned.

Termination of Participation by the Researcher

The researcher may take you out of this study if he believes that you are upset in some way due to your participation in completing the study survey.

Contacts for Additional Information

If you have questions about the study right now, please ask them. If you have questions about the study later on, please call the principal investigator, Mr. Dominic Kobina Forson at 0209-067-053

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research ***(Psychological Distress and Social Support on Quality of Life of Professional Health Care Givers of HIV/AIDS in Cape Coast Metropolis)*** has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

_____ _____

Date Name and signature or mark of volunteer

UNIVERSITY OF CAPE COAST

FACULTY OF EDUCATIONAL FOUNDATIONS

DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Research Questionnaire

SECTION A

Demographic Data:

1. **Gender:** Male ( ) Female ( ) 2. **Age:** ……

3. **Marital Status:** Never married ( ) Married ( ) Living together ( ) Divorced/separated ( ) Widow ( )

4. **Type of Nursing** General Health Nursing ( ) Psychiatric Nursing ( ) Midwifery ( ) Public Health Nursing ( ) Community Health Nursing ( )

5**. Income Level** Satisfied ( ) Fairly satisfied ( ) Not satisfied ( )

SECTION B

DASS: This section is designed to measure the severity of a range of symptoms common to Depression, Anxiety and Stress. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all – NEVER (N)

1 Applied to me to some degree, or some of the time – SOMETIMES (S)

2 Applied to me to a considerable degree, or a good part of time – OFTEN (O)

3 Applied to me very much, or most of the time - ALMOST ALWAYS (AA)

Please read each statement and indicate the number 0, 1, 2 or 3 applicable to you over the past week for each statement.

		No.
1	I found it hard to calm down after getting agitated	
2	My mouth feels dry after a hard day's work	
3	I couldn't seem to experience any positive feeling at all	
4	I experienced breathing difficulty (eg, excessive rapid breathing, breathlessness in the absence of physical exertion)	
5	I found it difficult to work up the initiative to do things	
6	I tended to over-react to situations	
7	I experienced trembling (eg, in the hands)	
8	I felt that I was using a lot of nervous energy	
9	I was worried about situations on which I might panic and make a fool of myself	
10	I felt like I had nothing to look forward to	
11	I felt myself getting agitated	
12	I found it difficult to relax	
13	I felt down-hearted and sad	
14	I was intolerant of anything that kept me from getting on with anything that I was doing	
15	I felt I was close to panic	
16	I was unable to become enthusiastic about anything	
17	I felt I wasn't worth much as a person	

18	I felt that I was rather sensitive	
19	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing beat)	
20	I felt scared without any good reason	
21	I felt that life was meaningless	

SECTION C

MSPS: Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988)

Instruction

Circle the "1" if you **Very Strongly Disagree**

Circle the "2" if you **Strongly Disagree**

Circle the "3" if you **Mildly Disagree**

Circle the "4" if you are **Neutral**

Circle the "5" if you **Mildly Agree**

Circle the "6" if you **Strongly Agree**

Circle the "7" if you **Very Strongly Agree**

Please read each statement and indicate the number 1, 2, 3,4,5,6 or 7, applicable to you over the past week for each statement.

1	There is a special person who is around when I am in need	
2	There is a special person with whom I can share my joys and sorrows	
3	My family really tries to help me	

4	I get the emotional help and support I need from my family	
5	I have a special person who is a real source of comfort to me	
6	My friends really try to help me	
7	I can count on my friends when things go wrong	
8	I can talk about my problems with my family	
9	I have friends with whom I can share my joys and sorrows	
10	There is a special person in my life who cares about my feelings	
11	My family is willing to help me make decisions	
12	I can talk about my problems with my friends	

SECTION D: The WHOQOL Group (1997) – updated; 2014

This assessment asks how you feel about your quality of life, health, or other areas of your life. Please answer all the questions. If you are unsure about which response to give to a question, please choose the one that appears most appropriate.

In the last two weeks, to what extent were you bothered by each of the following? *(Circle one number on each row)*

		Very Poor	**Poor**	**Neither Poor nor Good**	**Good**	**Very Good**
1	How would you rate your quality of life?	1	2	3	4	5
		Very dissatisfied	**Dissatisfied**	**Neither dissatisfied nor satisfied**	**Satisfied**	**Very Satisfied**
2	How satisfied are you with your health?	1	2	3	4	5

Please read each statement and indicate the number 1, 2, 3, 4 or 5, applicable to you over the past week for each of the following statements.

1. Not at all 2. A little 3. Moderate amount 4. Very much 5. Extreme amount

3	How much are you bothered by any HIV/AIDS work-related physical problems?					
4	How much do you enjoy life?					
5	To what extent do you feel your life to be meaningful?					
6	How much do you fear the future?					
7	How much do you worry about death?					
8	How well are you able to concentrate?					
9	How safe do you feel in your work as HIV/AIDS care provider?					
10	How healthy is your physical environment?					
11	Do you have enough energy for everyday life?					
12	Are you able to accept your bodily appearance?					
13	Have you enough money to meet your needs?					
14	To what extent do you feel accepted by the people you know?					
15	How available to you is the information that you need in your day-to-day life?					
16	To what extent do you have the opportunity for leisure activities?					
		Very Poor	**Poor**	**Neither poor nor good**	**Good**	**Very Good**
17	How well are you able to get around?	1	2	3	4	5

Please read each statement and indicate the number 1, 2, 3, 4 or 5, applicable to you over the past week for each of the following statements.

1. Very dissatisfied 2. Dissatisfied 3. Neither satisfied nor dissatisfied 4. Satisfied 5. Very satisfied

18	How satisfied are you with your sleep?	
19	How satisfied are you with your ability to perform your daily living activities?	
20	How satisfied are you with your capacity for work?	
21	How satisfied are you with yourself	
22	How satisfied are you with your personal relationships	
23	How satisfied are you with your sex life?	
24	How satisfied are you with the support you get from your friends and co-workers?	
25	How satisfied are you with the conditions of your living place?	
26	How satisfied are you with your access to health services?	
27	How satisfied are you with your transport?	
1. Not at all 2. A little 3. Moderate amount 4. Very much 5. Extreme amount		
28	How often do you have negative feelings such as blue mood, despair, anxiety, depression?	

APPENDIX B

ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: CES-ERB/ucc.edu/17/44

Your Ref: .....

Date: 16 03 2017

.....

.....

.....

Chairman, CES-ERB
Prof. J. A. Omotosho
jomotosho@ucc.edu.gh
0243784739

Vice-Chairman, CES-ERB
Prof. K. Edjah
kedjah@ucc.edu.gh
0244742357

Secretary, CES-ERB
Dr. (Mrs.) L. D. Forde
lforde@ucc.edu.gh
0244786680

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

The bearer, Mr. Dominic Kobina Forson ..... Reg. No ED/CHP/15/0012 ... is an M.Phil /Ph.D student in the Department of Education and Psychology. ....., College of Education Studies, University of Cape Coast, Cape Coast, Ghana. He/She wishes to undertake a research study on the topic Psychological distress and social support on quality of life of nurses of HIV/AIDS patients in the Cape Coast Metropolis .....

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed the proposal submitted by the bearer. The said proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/her study. The ERB would be grateful if you would give him/her the necessary assistance that may be needed to facilitate the conduct of the said research.

Thank you.
Yours sincerely.

Dr. (Mrs.) Linda Dzama Forde
(Secretary, CES-ERB)

APPENDIX C

INSTITUTIONAL CLEARANCE FROM CCTH

CAPE COAST TEACHING HOSPITAL
ETHICAL REVIEW COMMITTEE

In case of reply the reference number and the date of this Letter should be quoted

Our Ref.: CCTH

Your Ref.:

P. O. Box CT.1363
Cape Coast
Tel: 03321-34010-14
Fax: 03321-34016
Website: www.ccthghana.org
email: info@ccthghana.com

25th April 2017

Dominic Kobina Forson
Department of Education and Psychology
Faculty of Educational Foundations
College of Education Studies
University of Cape Coast
Cape Coast

Dear Mr. Forson,

ETHICAL CLEARANCE – REF: CCTHERC/RS/EC/2017/21

The Cape Coast Teaching Hospital Ethical Review Committee (CCTHERC) is glad to inform you that you have been granted permission to carry out your study at CCTH for your research on the topic, **"Psychological distress and social support on quality of life of prefessional health care givers of HIV/AIDS (Nurses) in Cape Coast metropolis"**

Please note that any modification of the project must be submitted to the CCTHERC for review and approval before its implementation.

You are also required to submit **a copy of your final report to the Research and Development Secretariat of CCTH.**

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

RESEARCH & DEVELOPMENT UNIT CAPE COAST TEACHING HOSPITAL CAPE COAST

DR. ERIC NGYEDU
MEDICAL DIRECTOR

CC: Biostatistician
Head, Public Health

APPENDIX D

INSTITUTIONAL CLEARANCE FROM METRO HOSPITAL

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
FACULTY OF EDUCATIONAL FOUNDATIONS
DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Telephone: 233-3321-32440/4 & 32480/3
Direct: 033 20 91697
Fax: 03321-30184
Telex: 2552, UCC, GH.
Telegram & Cables: University, Cape Coast
Email: edufound@ucc.edu.gh

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref:

Your Ref:

15th March, 2017

The Director
District Hospital
Cape Coast

CAPE COAST METROPOLITAN HOSPITAL
RECEIVED
24/04/2017
P.O.BOX 174, CAPE COAST

Dear Sir/Madam,

LETTER OF INTRODUCTION: MR. DOMINIC KOBINA FORSON

The bearer of this letter Mr. Dominic Kobina Forson is an M.Phil Clinical Health Psychology student at the Department of Education and Psychology, UCC.

He is at the thesis writing stage writing on the topic: *"Psychological distress and social support on quality of life of professional health care givers of H.I.V./AIDS (Nurses) in Cape Coast Metropolis"*.

We are by this letter kindly asking that he is given the necessary assistance.

All information retrieved would be treated confidentially.

Thank you.

(Georgina Nyantakyiwaa Thompson)
Principal Administrative Assistant
For:Head