UNIVERSITY OF GHANA BUSINESS SCHOOL
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JOB RELATED STRESS AMONG MENTAL HEALTH NURSES IN GHANA

BY

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DECLARATION

I declare that this thesis, with the exception of the quotations and references contained in published

works which have been identified and acknowledged, 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.

ERNESTINA QUAICOE   **DATE**

………………………………………..   ……………………………………

CERTIFICATION

I hereby certify that this thesis was supervised in accordance with the procedures laid down by the

University of Ghana.

DR. FRANCIS ANDERSON ADZEI   **DATE**
(SUPERVISOR)

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DEDICATION

This thesis is dedicated to Jesus Christ for His wonderful grace, love and protection over me throughout the study of this course. It is also dedicated to my dear husband, Mr. Denis Paa Kwesi Rigglets for his encouragement, support and prayers throughout the period of my study.

This work is also dedicated to my children, Maame Ama Nyame Tease Rigglets and Papa Kweku Adom Nnsa Rigglets for giving me the inspiration through their innocent smiles.

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LIST OF ABBREVIATIONS

APH   Accra Psychiatric Hospital

GHS   Ghana Health Service

TTSC   Transactional Theory of Stress and Coping

IDI   In-depth Interview Guide

ABSTRACT

Despite the fact that mental health nurses are more prone to job stressors, little research has been done on stress in their day to day activities at the hospital. This study therefore identified the causes of job related stress among mental health nurses, assessed the effects of job related stress on mental healthcare delivery and explored coping strategies among mental health nurses. Based on a mixed method approach, the study was based on nurses at the Accra Psychiatric Hospital. The study found that a high proportion of nurses found their work stressful.

The study found that age, rank, ward and shift are background characteristics that influence stress. Aggressive patients, inadequate logistics and low nurse to patient ratio was the major causes of stress. The study also revealed that stress has an effect on the delivery of health services by mental health nurses. Stress was also found to negatively affect the physical health and psychological health of nurses.

In order to cope with the stressful demands of their work, the comparative majority of the respondents indicated that sometimes they go on leave when they realise they needed one. To cope with stress while on duty, the study found that nurses call on their colleagues for assistance in handling stressful situations. It therefore behoves Government to put in measures and policies to regulate and reduce the effects of stress on nurses.

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

Job-related stress has been considered as a public health problem and a threat to occupational health and safety worldwide. An employee's health and organisational productivity is seen to be affected by stress related to the employee's occupation (Yuwanich, Akhavan, Nantsupawat & Martin, 2017). The National Institute for Occupational Safety and Health (NIOSH, 2008, pp1) defines job-related stress as "the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker." Statistics from the Health and Safety Executive (2017) reported that about twelve and a half million working days were lost because of issues of workplace stress and over half a million workers suffered from work related stress resulting in depression and anxiety. Similar findings are noted in the United Kingdom, where job-related stress is estimated to be the largest occupational health problem (Edwards & Burnard, 2003).

The repercussions of unmanaged job stress cannot be underestimated. Its negative effects on both the employee and the organisation have been documented. For instance, job-related stress can result in financial costs for employing organisations. According to the Stress Management Society (2010), the costs of presenteeism resulting from workplace stress is estimated to be 1.8 times higher than the costs of absenteeism. The cost is estimated to range between £1.4 billion to £2.8

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billion annually. Alves (2005) reported that it costs organizations as much as $75 billion a year on stress-related effects including physical injuries at work and absenteeism. The World Health Organisation (WHO, 2002) values the cost of stress and stress-related problems for organisations to exceed $150 billion annually. Studies at the individual level have shown that job-related stress can result in psychological, behavioural and physical reactions. Chronic health problems that are directly associated with job-related stress include cardiovascular disease, musculoskeletal disorders, physical injuries, and cancers. (Cohen, 2004; Juster, McEwen & Lupjen, 2010; Van Der Ploeg & Kleber, 2003).

Job-related stress varies from profession to profession. Some professions by their nature are more stressful than others. Nursing has been identified as one of the stressful professions in the world. Grey-Toft and Anderson (1981) identified that stress among nursing staff could be caused by work load, meeting the emotional demands of patients and the sight of death. Fisher, Kumar & Hatcher (2009) also found that the causes of stress and burnouts among nurses can arise from external, internal or some other interpersonal factors. Kane (2009) also found the causes of hospital staff stress to be primarily staff shortage, conflict with relatives of patients and insufficient remuneration.

Several researchers have investigated the causes of job-related stress among nurses and have argued that nurses are exposed to perceived or actual threat to violence, (Larkin et al,1998), verbal or physical aggression, lack of resources, conflict among nurses, role ambiguity, lack of support, family and work conflict among others (Rowe & Sherlock, 2005). In a study by Chan *et al. (2000),* they found that nurses and engineers alike experience higher levels of stress when it comes to issues associated with bureaucratic processes. Nurses therefore by the nature of their work are

more likely to get exposed to these stressors compared to other professionals like bankers and teachers.

There is evidence to show that the effect of stress and burnout among health workers such as nurses could result in dire circumstances such as higher rates of substance abuse (Dunn, 2005) and suicide (Feskanich *et al.* (2002). Burnout, absenteeism, employee intent to leave, reduced patient satisfaction, and diagnosis and treatment errors are all indirect results of job-related stress (NIOSH, 2008). Thus, job-related stress results in considerable amount of cost to health facilities in relation to patient care, nurse, and patient relationship, loss of productivity, health care resources, lower performance and increased sick leave days (Nakasis & Ouzouni,2008).

Nursing jobs are stressful but some are more stressful than others. Mental health nursing has been considered more stressful than general nursing. Sutherland and Cooper (1990) argued that psychiatric patients might exhibit some form of danger, irregular behaviour, or inept communication and that nurses that work in such hospitals have a lower status than general nurses. Additionally, Barker (1992) proposes that relating with patients at the personal level which is an essential component of psychiatric nursing makes the work a `prospective emotional minefield'. Al-Zayyat and Al-Gamal find that the major source of stress among mental health nurses is from their duties in caring for their mentally challenged patients. Moreover, the psychiatric patient can be more aggressive and violent especially among relapse patients. Mental health nursing is stress intensive and therefore requires much attention from policymakers, healthcare managers, and researchers.

1.1 Problem Statement

Studies have indicated that work-related stress leads to several undesirable consequences for nurses especially mental health nurses. Some of these consequences are physiological illnesses, increased arousal of restlessness or uneasiness among health workers (Adriaenssens, *et al., 2011*). Due to this, sometimes nurses have higher rates of absenteeism and sick leave, reduced performance at work (Adriaenssens *et al.,* 2011), more work-home conflicts and more contemplate whether or not profession compared with nurses who work in other environments (Yuwanich, Sandmark & Akhavan, 2017).

Nonetheless, in Ghana mental health care has not been given the needed attention (Ofori-Atta, Read & Lund C., 2010). Mental health care in the country is characterized by many challenges ranging from policy, practice to research (Ae-Ngibise et al, 2015). There is paucity of research on mental health in Ghana especially, indigenous ones. The few existing studies are carried out by foreign researchers who know little about the Ghanaian culture (Doku et al., 2011). Ghana lacks epidemiological data on mental health making it difficult to establish prevalence and incidence rates for effective mental healthcare planning.

Ghana passed her Mental Health Act in 2012 compared to maternal health care policy which was passed years before the Mental Health Act. The implementation of the mental health policy has been flawed with numerous setbacks such as inadequate funding and logistics. Mental health care has not been well and fully integrated into primary health care in the country. Moreover, the country's few psychiatric hospitals remain under-resourced, lack adequate infrastructural facilities and health workforce. A little over one percent of the 2009's health budget was allocated to mental

health in Ghana (Raja et al., 2010). This has led to high unmet mental health care needs. About 98% of mental health problems are untreated in developing countries like Ghana (Dixon, 2012). As at 2009, Ghana had only three psychiatric hospitals concentrated in urban areas, fourteen practicing psychiatric doctor and few nurses which serve a population of over 24 million, leaving psychiatric doctor-patient ratio at 1:1.7million. The limited mental health workforce is concentrated in the south part of Ghana leaving the northern parts of the country highly deprived (Ministry of Health, 2015; Antwi-Bekoe and Mensah, 2009). Mental health care at the community level is even worse as many primary healthcare facilities lack well equipped mental health units coupled with a lack of community mental health officers.

Access to mental health care services is problematic coupled with sporadic shortages of psychiatric medications, beds for patients, unorganized and congested (Antwi-Bekoe and Mensah, 2009). This puts mental health care workers at the mercy of relapsed psychiatric patients. Working conditions for the few mental health workers in the country remains poor, leading to frequent labour agitations. Strike actions among mental health nurses in Ghana remain frequent. The media landscape is always flooded with stories on mental health workers with headlines such as "*psychiatric nurses begin indefinite strike over dangerous working environment*" (www.myjoyoline, 31st October, 2016), "*Strike looms in the mental health sector as government is yet to release GHC 28 million needed*" (www.ghanaweb.com, 16th June 2017). These suggest that mental health care in Ghana is under-resourced, underfunded and lack adequate human resource. Thus, putting too much workload and pressure on the few mental health workers available.

Despite the fact that mental health nurses are more prone to job stressors, little research has been done on the causes, effects and coping strategies they adopt to deal with job stress in their day to day activities at the hospitalss. The available studies focused on general nurses with a little emphasis on mental health nurses (Aziato & Adejumo, 2014; Henry & Mohan, 2003). However, understanding the causes of stress, its effect and coping strategies adopted by mental health nurses is needful, timely and has implications for health policy, practice and research. This study seeks to fill this gap.

1.2: Research Objectives.

The main objective of the study is to assess job-related stress among mental health nurses in Accra Psychiatric Hospital (APH). Specifically, the study hopes to meet the following objectives:

1.   To identify the causes of job-related stress among mental health nurses at APH.

2.   To assess the effects of job-related stress on mental healthcare delivery qat APH.

3.   To explore coping strategies among mental health nurses at APH

1.3: Research Questions.

To meet the objective for the study, the following research questions have been outlined:

1.   What are the causes of job stress among mental health nurses at APH?

2.   What are the effects of job stress on mental healthcare delivery at APH?

3.   How do mental health nurses at APH cope with job-related stress?

1.4 Significance of the study.

The significance of this study cannot be underestimated. Its significance is given in relation to research, policy and practice. This study will add to knowledge on stress in mental health care in general. Specifically, the study will contribute to the limited empirical studies on mental health in Ghana.

The findings of this study will inform health policy, contribute to healthcare research especially mental health care, and influence evidence-based mental health care decisions and practices. Hence, the findings will be needful and timely especially in Ghana's quest to scale-up mental health care in the country. Mental healthcare workers can take advantage of the findings of this research to advise themselves on how to handle stress in the discharge of their duties. This study can therefore serve as a reference manual for mental health workers in dealing with stress and burnout.

1.5 Organisation of the Study

The study is organized in six chapters. The background to the study, statement of the problem, the purpose of the study, objectives of the study and significance of the study are dealt with in the opening chapter. The second chapter discusses the literature on stress, with a focus on the theoretical, as well as the conceptual underpinnings of the study. The third chapter focuses on the methods of the study. Chapter Four contains the results and chapter five contains discussion of the analysis of data collected from the field. The last chapter, which is Chapter six, is devoted to the

summary of the main findings, conclusions, recommendations, and suggestions for further research.

1.6 Scope of the Study

The study aims to assess job-related stress among mental health nurses. The study is limited to mental health nurses at the Accra Psychiatric Hospital (APH). The study includes those mental health nurses who were on duty during the period of data collection. The study includes the job-related stress of nurses and how they manage to cope with stress. However, the study did not cover the individual characteristics of the individual nurses. The information needed was gathered using a questionnaire and an in-depth interview guide. All information and conclusion drawn from this study were obtained only from this particular group of nurses.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter provides a review of both theoretical and empirical literature on stress. In the empirical review, particular attention was focused on related studies on causes of job-related stress among mental health nurses, its effects on mental healthcare delivery and coping strategies adopted.

2.1 Overview of Stress

Stress is a very old construct but is still of relevance to human society. Stress as defined by psychologists is an unpleasant state of emotional and physiological arousal that people experience in situations that they perceive as dangerous or threatening to their well-being (Folkman & Lazarus, 1980). Its first appearance in scientific literature was around the 1930's but became popular in nursing research around the late 1970's and early 1980's. However, its first appearance in the nursing journal was in the 1950's (Lyon & Werner, 1987). Since its inception in the 19th century, quite a number of scholars and researchers have propounded various theories to describe, explain or understand it.

Hans Seyle, (1936) was the first researcher to use the term stress. Seyle, (1936) definition of stress focused on the biological aspects and he referred to stress as a nonspecific response of the body to any demand of change. Also, Seyle, (1936) defined stressors as events that intiate a response from the organism physiologically and psychologically. Stressors are the events that elicit the stress response. Stressors can either be a biological agent, an environmental condition, an external stimulus or an event. Stress can result in a negative or positive condition (Levi, 1971,

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1976). Positive stress (eustress) and negative stress (distress). There are either positive or negative outcomes from the stress experienced by individuals. Psychological health and high job satisfaction are the outcomes of positive stress while negative stress outcomes include psychological ill health, burnout, and low job satisfaction among others. Latter theories include the resource stress theory and psychological stress theory.

2.2 Theoretical review

Several theories have been used to explain stress. The first part of this chapter reviews some of the theories that have been used to explain the concept of stress. The section begins with the transactional model of stress and continues with the theory of work design and the salutogenic model of stress. The section ends with a discussion of the transactional theory of stress which forms the bedrock for the study.

2.2.1Transactional Model of Stress

The model was propounded by Lazarus and Folkman (1984). The model sieved as a coping framework for situations such as stressful events. It is beneficial in many instances such as educating people on health and preventing diseases (Glanz *et al., 2008).* Nurses mostly encounter situations where patients demand care. They are also faced with the trauma that surround deaths of patients as well as working for long hours (Sexton et al. 2009).

According to Lazarus and Cohen (1977), stress is caused by demands that are made within environments that are both internal and external to the victim. this is detrimental to both the wellbeing of the individual in both physical and the psychological sense. The authors therefore proposed a model of stress by considering it to be a transactional problem. Thus, an appraisal of

the stressful situation is done first by the victim of stress to understand its meaning. Then the resources at the disposal of the individual is considered in order to manage the situation.

The appraisal can either be a positive or a negative one. Positively, it is interpreted as something that is necessary. In the negative sense, it can be interpreted to mean a dangerous occurrence or one that has potential threats. Cohen (1984) groups these appraisal forms into primary and secondary appraisals. Primary appraisal describes the individual's judgment about the significance of the situation as one that has stress, whether in its positive or negative sense. The secondary appraisal on the other hand assesses the individual's ability to cope with the situation by evaluating the mechanisms available. The theory therefore seeks to uncover issues that border on the sources of work stress for health workers as well as their coping mechanisms.

2.2.2 Theory of work design

Karasek (1979) developed the theory of work design. This was later modified by Karasek and Theorel (1990) (Dewe, O'Driscoll & Cooper, 2012). The theory identified job demand and job control as the two significant factors that affect work the environment. Karasack (1979) stipulates that job demand acts as the psychological stressor which include finishing the work load, unforeseen tasks and stressors of the job-related personal encounter which have influence on the stress level of employees. Job control on the other hand refers to the employees' ability to have control over their tasks and their demeaner as they embark on their duties (Landy & Conte, 2010; Zirwatul & Ibrahim, 2013). Again, the model posits that the requirements by the employees on themselves are not highly significant factors of stress. But rather the level of stress experienced depends on the level of control they have on the demands of the work.

This interaction was explained as Demand X Control (in terms of discretion or will) on the level of stress (Karasek, 1979). It could also be said that the level of control regulates the effects of demand's pressure on stress (Lund & Conte, 2010). The JDC model postulates that the most hostile effects of emotional drain were indicated to be more significant among people working in high level demand jobs and having less control which results in high job strain (Zirwatul & Ibrahim, 2013). However, the theory also argues that the passiveness or activeness of a job can affect the growth or learning process of an employee. When an employee finds himself in a high demand job and also have control over the job, it affords the employee the opportunity to learn new skills and increase productivity (Dewe et. al. 2012). Passive job employees on the hand work in low demand jobs and have less job control. When tasked with difficult jobs, they are not inspired to partake wholeheartedly and attain novel skills out of them (Rodrigues *et al.*, 2001).

2.2.3 Salutogenic Model of Stress

Antonovsky postulated The Salutogenic Model (Hanson, 2007). The theory argues that one's health involves several variables and as such specific situations that people find themselves should be considered rather than lumping all of them together. He used the module to study the link between stress and ill-health (Friedman, 2007). The word salutogenesis is made from the word "Salus" and "Genesis" The word "Salus" from Latin which refers to health and the word "Genesis" from Greek which means origin. The model was used to study effect of menopause on women in Israel. These women had experienced very stressful life situations which included the concentration camps during the Second World War (Hanson, 2007).

The study revealed that a portion of the women were able to adapt and cope with the circumstances. This led to the question, "how people after horrible life events such do as wars are able to enjoy a better and happy life?" (Hanson, 2007). The Salutogenic Model argues that answering this question

can be done by using the sense of coherence and general resistance resources. Sense of coherence according to the theory includes the ability to compensate, manage and make meaning while the general resistance resources include money, self-confidence, support and cultural capital (Eriksson & Lindström, 2007). According to Eriksson and Lindström (2007) individuals with good sense of coherence and general resistance resources are able to deal with stressful life events.

2.2.4 Transactional Theory of Stress and Coping (TTSC)

This study is underpinned by the Transactional Theory of Stress and Coping (TTSC) by Lazarus and colleagues (Lazarus, 1966). The TTSC has its roots in psychology and is also known as the psychological or cognitive theory of stress. The theory has gone through major revisions since its inception in 1966. Lazarus' and Folkman's (1986) theory defined psychological stress as a relationship with the environment where an individual appraises as important for his/her well-being and in which the demands exceed available coping resources. In other words, the proponents of this theory argue that stress is a product of a transaction between a person and his/her environment. Suggesting that the environment is a major determinant of stress. The environment can be our workplace, home, family relations etc.

the transactional model is based on the premise that appraisal, whether primary or secondary and its associated coping strategies mediate the relationship between stressor and the stress outcomes of the individual. Two main processes form the pillars of this theory thus; cognitive appraisal and coping. Cognitive appraisal is how the individual interprets environmental events known as stressors. Cognitive appraisal is in two folds, thus primary appraisal and secondary appraisal. Primary appraisal is the stage an individual interprets a stressor as a challenge or a threat.

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Secondary appraisal is where the individual assesses resources at his/her disposal to deal with the stressor. Coping is the cognitive and behavioural efforts to master, reduce or tolerate environmental stressors (Folkman & Lazarus, 1980).

Characteristics of work at the workplace act as environmental stressors while personal characteristics may impact the ability of the individual to perform the appraisal process. Persons who feel they do not have enough resource to deal with the situation may resort to emotion-focused coping such as wishful feeling. On the other hand, persons who feel they have enough resources to confront the situation may resort to problem-focused coping such as analysing the problem in order to take the necessary steps to solve it. Hence, coping is preceded by secondary appraisal. The type of coping adopted by an individual may influence or affect outcomes such as job performance or satisfaction. Coping and appraisal are mediators for the transaction or relationship between an individual and his/her environment (Lazarus, 1966, Lazarus & Folkman, 1984).

Based on the argument of Lazarus and colleagues, this study conceptualizes that job-related stressors (lack of control and lack of support) can trigger stress in mental health workers. Mental health nurses who primarily appraise the stressors as threats or challenges move to the secondary appraisal stage. Mental health nurses who think they have enough resources to deal with the stressors may resort to problem-focused coping. Where they can plan and implement coping strategies to effectively deal with the stressors. This may have a positive effect on the outcome of the services they deliver (Interpersonal Quality of Care).

On the contrary, mental health nurses who think they do not have adequate resources to deal with the stressors are more likely to resort to emotion-focused coping. Nurses who resort to emotion-focused coping are likely to become stressed-up which will negatively affect the interpersonal

quality of care. There is also an inverse relationship between outcome and primary appraisal while coping controls the transaction process. Furthermore, the researcher believes that secondary appraisal is moderated by socio-demographic factors like experience, position, unit type, age, educational level etc. See Figure 2.1 below.

2.3 Conceptual framework

Lazarus and Folkman's Psychological Stress and Coping Models (1984) was adapted as the conceptual framework for this study. This model has two distinct theories; the interactional and transitional. While the interactional focuses on the structural features one's interaction with their work environment, the transactional focus is based on the psychological mechanisms that are forming this level of interaction. This theory was selected because it is the best fit for the objectives of this study which seeks to measure the causes, effects and coping strategies of mental health nurses in dealing with stress.

The theory stated that appraisal of stress occurs when a person considers the factors that contribute in response to the occurrence of stress. These are, threatening tendency of the stress to the individual (primary appraisal) and the assessment of resources available to cope with the stressor (secondary appraisal). The secondary appraisal then gives the individual options as to how to cope with the stressor which leads to the outcome of stress. The outcome here is the effect of stress on the job of the Mental Health Nurse.

The experience of stress is, therefore defined as the realization that the individual nurses are having difficulty coping with demands and threats to their wellbeing, and that finding a way to cope is important however the difficulty in coping worries or depresses them.

Fig 2. 1: Conceptual model for study
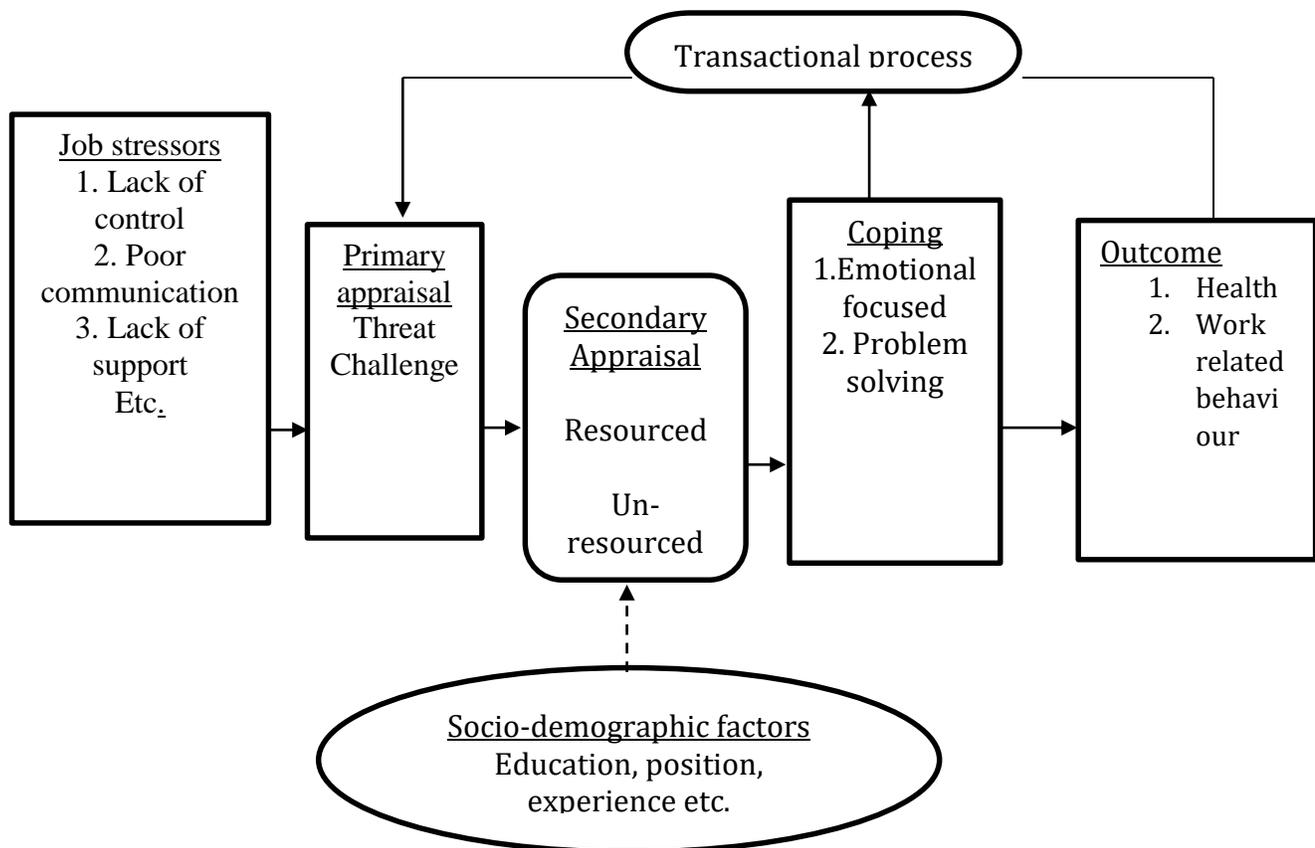
Source: Adapted from Lazarus and Folkman, (1984).

2.4 Empirical review

This section of the literature review will look at empirical studies that have been conducted on the Prevalence of stress among nurses, the causes, effects of stress and the coping strategies to deal with stress.

2.4.1 Prevalence of stress among nurses

Several studies have been conducted across the globe on stress among workers and more especially, health workers. Fazelzadeh *et al.,* (2008) found that over half of nurses in Iran working in public hospitals had psychiatric distress by using GHQ-28 (cut-off > 4). The response rate of participants was 100% and the majority of participants were females (62.2%). Ardekani, et al (2008) indicated that the prevalence of psychological distress caused by stress among nurses in Iranian public hospitals was 45.4% using Persian version of GHQ-28 (cut-off 6). Of 1396 registered nurses, 1195 (89% of females) completed and returned the questionnaire to the nursing center director with a high response rate (85.6%). A descriptive cross-sectional survey was carried out by Abdi Masooleh, et al (2007) to explore the association between burnout and mental health among nurses in teaching hospitals of Tehran University-Iran. The sample consisted of 200 nurses selected via probable multistage sampling. The prevalence of distress in the GHQ-28 (cut-off 6) was 43%.

Another study was carried out by Arimura et al (2010) which aimed to assess the potential effect of nurse's health on patient services. A self-administered GHQ-28 was used in 454 (420 females) Japanese nurses working in hospitals. Results showed that 65% of the participants had a GHQ-28 score above the cut-off point of 6. The objective of Suzuki et al (2004) study was to

determine the psychiatric distress among 4,407 female Japanese nurses (94.04%) working in 8 hospitals using GHQ-12. Results indicated that 68.8% had psychological distress according to GHQ threshold cut-off (3/4). Again, Matsuoka et al (2001) found that mental distress in 100 nurses who had experienced sexual harassment as measured by GHQ-30 (cut-off > 7) was 41%.

Tham et al (2005) found that prevalence of psychological distress among emergency nurses in Singapore six months after the outbreak of the Severe Acute Respiratory Syndrome (SARS) outbreak was 20.7% by using GHQ-28 (cut-off $\geq$ 5). The researchers concluded that the results might have underestimated actual distress as the study was carried out a few months after the (SARS) outbreak. In another study from Singapore, a cross-sectional survey by Sim et al (2004) was used to evaluate the prevalence of psychological distress and coping strategies among 277 medical staff (91 doctors and 186 nurses) working within a public healthcare setting.

The results from the study showed that the prevalence of psychiatric morbidity was 20.6% as measured by GHQ-12 (cut-off 4). In Taiwan, Tzeng et al (2009) estimated the prevalence of stress among healthcare providers in Taiwan military hospitals. The sample consisted of 65 physicians, 416 nurses, and 304 other specialists. Results showed that nurses had the highest GHQ-12 scores based on a cut-off threshold of $\geq$3 (nurses 32.1%, physicians 28.3% and other 22.4%). Kaewboonchoo et al (2009) conducted a cross-sectional descriptive study of 390 female Thai nurses. The findings indicated that 10.3 % of the nurses had distress as indicated by the Thai version of GHQ-28 (cut-off of 6 or more). Jayawardene et al (2011) measured distress among nurses from 2 hospitals caring for war victims in Sri Lanka. The researchers used a descriptive, cross-sectional study design to collect data from 241 nurses who were selected randomly. At the end of the study, the prevalence of stress was 21% as measured by self-administered GHQ-30 (cut-off 4).

In Nigeria, Yussuf (2007) found that the prevalence of psychological stress among health workers in the country was about 17.9% by using the GHQ-30 (cut-off > 4). Lasebikan and Oyetunde (2012), in their study among Nigerian nurses working in a Nigerian General Hospital to explore the prevalence of burnout and distress indicated that 110 (40.7%) scored positive on GHQ-12 (cut-off 2).

Jones et al (2011) assessed the psychological distress among multidisciplinary staff including nurses working in a cancer center in North East Scotland by GHQ-12. Out of the 168 professionals, which were used for the study, the prevalence of psychological distress was 34.1% when using cut-off 4 or more on GHQ-12. Ross et al (2009) aimed to assess psychological distress among clinical and nonclinical staff in two hemodialysis units in London. Results indicated that the prevalence of distress was 16% by using the GHQ-12 (cut-off 4 or more). Sharma et al (2008) sent booklets to 455 colorectal surgeons and 326 nurses colorectal clinical nurse specialists working in the NHS. The response rate was 55.6% and 54.3% in surgeons and nurses respectively. Psychological distress was similar in the surgeons and nurses as measured by GHQ-12 (30.2% and 30.3% respectively) and using a cut-off threshold of ($\geq$4). Regan et al (2009) found that psychological distress among 87 UK ICU nurses was 9.20% according to GHQ-28 (cut-off 39/40). Edwards et al (2000) indicated that 35% of Wales's mental health nurses had crossed a threshold (2 or more) of psychiatric cases on the GHQ-12. Weinberg and Creed (2000) conducted their study in the UK among health professionals (including nurses) working in a hospital that employed over 6000 staff using stratified random sampling. It was revealed that 132 (26.7%) respondents had scored above threshold on GHQ (4 or more). Again, Patterson and Bell (2000) found that 32.9% of 599 staff of a large Scottish psychiatric service exceeded a cut-off score of four on the GHQ-28.

Similarly, Escot et al (2001) found that psychological distress among nurses of a cancer hospital at Montpellier, France. Thirty-seven nurses agreed to participate and 97% of them were females. Prevalence was 19.4% as measured by GHQ-12 (cut-off 2). Failde et al (2000) concluded that 29.9% of employees (including nurses) working in a university hospital in southern Spain were probable psychiatric cases as indicated by GHQ-28, using a score of >6 as the cut-off point. Of 1104 questionnaire sent, 890 of them were returned (RR = 80.6%).

Bressi et al (2008) aimed to estimate the prevalence of psychological distress among haemato-oncology healthcare professionals in Italy by using GHQ-12. Of 440 questionnaire, 387 (87.95%) were returned. The estimated prevalence was 36.4% in doctors and 28.8% in nurses when using cut-off ≥4 on GHQ-12. Tabolli et al (2006) assessed burnout and psychiatric morbidity among nurses working at the IDI-Sanita in Rome, Italy. Of 545 nurses, 242 completed a self-administered questionnaire, which consisted of Maslach Burnout Inventory and GHQ-12. About 33% of respondents had psychiatric morbidity on GHQ-12 (cut-off 4).

In North America, Edmonds et al (2012) noted that half of health workers including nurses working in specialised departments at major hospital centers in Ontario, Canada had high levels of psychological distress as measured by the GHQ. Also, Nickell et al (2004) assessed the prevalence of psychosocial distress among health professionals (including nurses) in Toronto hospitals during the SARS outbreak and found that 29% of participants were distressed. In the year 2000, Grunfeld et al (2000) explored the prevalence of distress among medical care providers (including nurses) working in medical oncology services in Ontario. The study revealed that the prevalence of distress was 10.4% among the respondents.

In South America, Lindo et al (2006) aimed to assess psychological distress among 212 physicians and nurses at two hospitals in the West Indies, Jamaica. For this purpose, a self-administered General Health Questionnaire 30 (GHQ 30) was used. The results showed that 27.4% of participants had high psychological distress.

2.4.2 Causes of stress among nurses

Most identified sources of stress associated with mental health nurses are workload, interpersonal interactions among staff, resource issues, patients' issues especially perceived or actual violence, role ambiguity, and role conflict. A systematic review of stress among mental health social workers by Coyle, Edwards, Hannigan. Fothergill and Burnard, (2000) identified workload, the degree of involvement with patients, fulfilling statutory requirements under the UK Mental Health Act (1983), lack of social support, role conflict and role ambiguities as the major stressors experienced by mental health social workers. However, this study was mainly focused on literature (data) from the United Kingdom neglecting other countries which lead to overgeneralization of the conclusions drawn from the study. Edwards and Burnard (2003) studied stress among workers involved in community general mental health nursing. They found that there were various factors that affected the levels of stress of health workers. They included higher workload, time management issues and dealing with potentially violent or suicidal patients. In another study by McVicar, (2003) found that workload, the leadership style of management and the cost of caring were other main sources of stress among the health workers.

In a recent review of research on forensic mental health nursing, Brown et al, (2017) concluded that mental health staff working in a forensic setting experience moderate levels of both stress and burnout. They also found out that elevated levels of stress and burnout have adverse

effects on one's ability to work and consequently there is a financial reason for the management of health service workforces to get involved.

Again, the sources of stress among nurses are related to the nature of the nursing profession. Among the stressors associated with the nursing profession is the intense work environment nurses find themselves and the extended working hours they endure, in addition to the running of shifts on weekends, night shifts and working on holidays. Sources of stress in the working environment of nurses include new technology, nature of work conditions, extra workload, shift work system, ambiguous and conflicting roles in addition to the responsibility of persons that nurses have to bear. (Dorcoo, 2016).

Ruggiero (2003) describes the nature of the nursing profession to be mentally and physically demanding and hence could associate stress with the shift work system among nurses. Intense emotional support required by patients and families alike contributes to the stress placed on nurses. While at work, nurses are exposed to the pain and suffering of patients. The physical and mental traumatic life events around the nurses due to their work add to their stress each day. (Cohen-Katz et al., 2005). These nurses finally become emotionally exhausted. Research shows that psychological distress encompasses others beyond the victims of trauma (Collins & Long, 2003). According to Dunkley and Whelan (2006), health care workers, including nurses are exposed to emotional and spiritual stress as they constantly witness patients undergoing suffering, pain, and trauma. This, as described by Pearlmann and Saakvitne (1995) involves a transformation of the experience of the patient to the carer as he or she attends to the patient, which they termed vicarious traumatization. From the study of French, Lenton, Walters, and Eyles (2000), a nine sub-scales of workplace situations that contribute to stress among nurses was developed. These factors are conflict and misunderstandings with physicians, lack of adequate preparation, relationship

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problems with colleagues, issues with supervisors, discriminatory attitudes at the workplace, too much workload, difficulty in arriving at the decision concerning treatment of patients, the task of having to deal with death and dying patients and putting up with patients and their families. In addition, intra-professional and inter-professional conflicts continue to be a significant source of stress for nurses. Inter-professional conflict, particularly among nurses and physicians, appears to be a major problem (Bratt, Broome, Kelber & Lostocco, 2000).

A study by Kivimaki, Elovainio, and Vahteera, (2000), confirmed that the issue of poor interpersonal conflict among health care professionals also contribute to stress among nurses. Again, the nature of the work environment, in addition to poor interpersonal relationships among nurses and other health professionals, other organizational factors, various roles that nurses have to play, and their personal characteristics have been found to be the major cause of stress to nurses.

Moustaka and Constantinids (2010) revealed that the major determinants of emotional exhaustion include increased demands on the job, staff shortage, lack of career advancement opportunities, lack of autonomy at the workplace and work overload. The Demand-Control Model describes stress in the workplace as a result of the imbalance between psychological demands and the level of control that an individual has over his or her work. This can have an adverse effect on the health of workers. Therefore, the greater the demand that workplaces put on an individual, the less control one has over his/her work, the higher the risk that one will become physically or psychologically stressed (Karasek & Theorell, 1990). Among the major causes of workplace stress among nurses was their lack of preparation in addressing the emotional needs of their patients and this leads to anxiety among the nurses (Sveinsdottir, Biering & Ramel, 2006).

In Ghana, Dapaa (2014) carried out a study to assess the causes of stress among nurses in the Greater Accra Region. The method used to guide her study was the descriptive survey design. The sample size was 369 nurses working in government facilities within the Greater Accra Region. Specifically, the convenient sampling technique was used to select participants for the study. It was shown from the study that the nurses comprised of 108 (29.3%) males and 261 (70.7%) females. The majority (73.3%) of them had more than 15 years' work experience in nursing. The life events theory which explains how individuals and the environment in which they live in effect each other was used to guide the study. Data were analyzed quantitatively using frequencies, mean distributions, and standard deviations. The mean score on the factors contributing to stress among the nurses was 3.96, which suggested that the nurses confirmed that the key items listed in the questionnaire actually contributed to stress among nurses. According to the study, the major factors contributing to workplace stress among the nurses included the number of hours spent at work, financial difficulties, the death of patients and lack of control over their work.

Yeboah, et al. (2014) also carried out an empirical analysis of the determinants of workplace stress among 453 healthcare professionals at the Komfo Anokye Teaching Hospital in Ghana. An examination of the relationships between 6 main organizational factors (demand, control, support, relationships, change, and role conditions) and the level of stress among healthcare professionals was carried out in the Teaching Hospital. It was found that all 6 elements (thus demand factors, control factors, support factors, relationships factors, change factors and role factors) that were assessed had a significant impact on the stress levels of employees. However, it was found that specialist physicians, general practitioners or family physicians, and registered nurses, with the exception of nurse supervisors and nurse managers, had a higher risk of work stress that was relative to that of other healthcare providers.

In Brazil, Urbanetto, et al. (2011) carried out a cross-sectional study on workplace stress among nursing staff. The study was based on the Demand-Control Model. The staff comprised nurses, nurse technicians, and nurse auxiliaries. The aim of the study was to identify workplace stress according to the Job Stress Scale and to compare it with socio-demographic and occupational variables of nursing workers. A convenient sample of 388 participants took part in the study. The Job Stress Scale was used as the data collection tool for the study. The nature of the work of the nurses were classified into job demand (high and low demand) and job control (high and low control). After that, Demand-Control quadrants were classified into 'high strain jobs' (indicating increased psychological demand coupled with workplace control); 'active jobs' (indicating increases psychological demand and more control); 'passive jobs' (indicating reduced psychological demand coupled with reduced control) and 'low strain jobs' (indicating reduced psychological demand in addition to increased control). The total number of health professionals who had low psychological demand was found to be significantly high. Findings showed that auxiliary nurses or health technicians, who have had more than 15 years' work experience, and health workers with low social support had a positive association with and were more likely to be classified as being in the high strain quadrant. Secondly, health workers who were a nursing technician or nurse auxiliaries were more likely to be in the passive job quadrant. However, health workers who have had more than 15 years' work experience were more likely to be in the active job quadrant. Among those with a lower chance of being placed in the active job quadrant were health workers in hospitals or those working in the intensive care unit.

In Sveinsdottir (2006) assessment, the inadequate social support from colleague health workers and the superiors were the main cause of stress among the nurses and health workers in general. And this resulted in in their lack of understanding at the workplace. Gillespie and Melby (2003)

determined the stressors and their effects and concluded that levels of stress among nurses in the medicine environment was higher than those at the accident and emergency environment. Similar results were obtained by Koivu et al (2011). It was found that stress was slightly higher among the 124 nurses who participated in clinical supervision (32.8%) at Kuopio University Hospital in Finland compared with the 204 nonparticipants (26.2%).

In some studies, it has been shown that Personal characteristics are also associated with stress and burnout (Moreira, Magnago, Sakae, & Magajewski, 2009). Different researchers have described age, gender, and marital status, level of education, work experience and whether or not an individual has got formal ICU training as personal characteristics associated with stress. Different authors have described the effect of age on stress differently. Example (Jennings, 2008) in his study on "Work Stress and Burnout among Nurses: Role of the 12 Work Environment and Working Conditions", found that age is inversely related to stress level (stress level decrease with increased age). Conversely (Koivula, Paunonen, & Laippala, 2000) in their study on burnout among nursing staff in two Finnish hospitals found that stress level increases with age. Female nurses are more stressed compared to male nurses due to the nature of their responsibilities. Female married nurses have combined work and home stress (Jennings, 2008). A study done by (Thorsen, Tharp, & Meguid, 2011) on burnout among maternal health staff at a referral hospital in Malawi found that stress level is directly related to the number of children of nurses.

Nurses with bachelor degree and specialists are more stressed compared to nurses with diploma and certificates. Nurse specialists' expectation when they are employed as having different duties and roles compared to ordinary nurses. So, when they find again they have to carry out dusting, patient transferring to other wards, urine emptying, and night shifts, they get demoralized and emotional exhaustion leading to burnout (Mbuthia, 2009). Work experience is

also a determinant of stress having an inverse relationship (stress decrease with the increased number of years at work) (Al-Turki et al., 2010; Mbuthia, 2009; Raja et al., 2007). Raja and colleagues (Raja et al., 2007) in their study on the prevalence of stress among ICU nurses in Malaysia also found that nurses who received post basic ICU course had a low-stress level as compared to those with no post basic ICU course.

2.4.3 Management issues and stress

Management issues are also found to have a significant effect on nurse stress level (Gurses et al., 2009; Mims & Stanford 2004; Mkiga, 2013). Some of the management issues include; staff motivation, participation in decision making on policy and protocol development; job description (unclear work or conflicting roles and limits of work), poorly resourced and understaffing of departments. Nurses can be motivated financially or non-financially. Financially they can be motivated through appreciable remunerations or allowances. Non-financially, they can be motivated by the show of appreciation, provision of feedbacks participation in decision making and career advancement opportunities.

This increases morale of work and minimizes the levels of stress (Mbuthia, 2009). Demoralization occurs when nurses are always treated as recipients of what has been decided by the organization even if it affects their work performance and quality of care. Having clear job description can minimize anxiety, physical, and emotional exhaustion to the nurses especially those with bachelors and specialists because they find themselves in a well of multiple tasks when they are at workplace. Workplace factors causing stress can be categorized as those to do with the content of work and those to do with the social and organizational context of work (Michie, 2002). Those that are inherent in the job include but not limited to working long hours, pressure at work, daunting tasks with low levels of variety and poor physical working conditions.

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Again, stress is caused by not knowing one's exact roles and the limit to which a person can function. (Mkiga, 2013). Career development opportunities play a significant role in dealing with the following contributor of stress; under promotion, lack of training, and job insecurity (Michie, 2002). Relationships among nurses and the organizational culture are other sources of stress. Working as a team in a positive social dimension at work proves to reduce stress while critical, demanding, unsupportive or bullying managers create stress. An organizational culture of unfair remuneration of overtime causes stress. On the other hand, a culture of inculcating people in decisions, making sure they are informed on happenings within the organization, and providing recreation facilities and necessary amenities reduce stress. Organizational change, especially when consultation has been inadequate, is a huge source of stress. Such changes include mergers, relocation, restructuring or "downsizing", individual contracts, and redundancies within the organization (Michie, 2002).

2.4.4 Effects of stress

Individual and organizational effects of stress are numerous, as per research findings. In most organizations the cost of stress consequences has become a huge burden on organizations; for instance, work stress costs employers over £25.9 billion in the UK annually (Buss, 2012; Harding et al., 2013). Other negative consequences of stress are the dissatisfaction with work, works absenting themselves from work and employee withdrawal. These pose further threats such as lower work turnover and can possibly lead to loss of jobs and loss of productivity (Dorrian et al., 2011).

It is a general view that stress leads to physical illness. Various physical ailments and complications have been associated with stress such as: high blood pressure and acute coronary diseases, indigestion, weight gain, sleeping disorders, memory and concentration problems,

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anxiety, depression, infectious diseases and other physical problems (Reed, 2013; Rana & Upton, 2009; Buss, 2012; Harding et al., 2013; Dorrian et al., 2011). Nurses are exposed to higher risk of getting infected and spreading infectious diseases. Nurses are at higher risk or catching contamination because they take care of the patients who have gotten to the peak infectious stage of their infection with numerous symptoms, which include spewing, coughing diarrhoea, or haemorrhage. Thus,they have a higher exposure to these infections and a higher chance of being infected. Nurses aid the patients with their hygiene and do other procedures such as respirational intubation, kidney dialysis, among others which place them at a higher risk of contact with bodily fluids (Rana & Upton, 2009).

2.4.5 Stress and Physical Health

Stressful situations can lead to job burnout which has adverse effect on professional efficacy and quality of care. (Wu, Li, Tian, Zhu, Li, Wang, 2001). According to a study by Sarafis et al. (2016), it was found that work-related stress can be associated with many physical health problems such as migraines, muscle pain, back pain, joint pain, long-term physical illnesses, hypertension, irritable bowel syndrome and duodenal ulcer, and immune and endocrine system illnesses.

Stressful situations can also lead to rising in blood pressure temporarily. All through the stressful circumstances, the body produces a flow of hormones that escalates the blood pressure by triggering the heart to beat more rapidly and causes narrowing of blood vessels. This short-term associated stress rises in blood pressure, over a time might place a person at danger of developing long-standing high blood pressure (Reed, 2013; Stress Management Health Centre, 2016).

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Stress places a person at the risk of developing heart attack, heart failure and damage to heart arteries as a result of high blood pressure. Continuous exposure to stress increases the blood pressure. Stress also changes the way blood clots, which makes one more likely to get a heart attack. (Berman & Snyder, 2013).

Additionally, some people consume more alcohol, smoke or eat more unhealthy foods, use drug, in stressful situations, which surges the danger of high blood pressure, stroke and heart attack. Nurses' night shifts make them more disposed to developing cardiovascular problems such as heart attack, stroke, and other coronary disorders. Night shift work also is known to be a danger factor for increasing chance of hypertension particularly among those who are doing night shifts for a long time (Reed, 2013). Cavalheiro, Moura Junior, and Lopes (2007), found that occurrence of stress associated with nursing undertakings in intensive care units was positively related to cardiovascular symptoms among nurses employed in intensive care unit.

Stress was found to also affect the quantity and kind of food we are eating. When we are less stressed it influence the chances to eat healthier. We might consume more bad or high calories to fulfill our emotional needs when stressed. This is as a result of stress which increases the release of cortisone hormone and insulin in our body. This pushes our body to desire for fatty and surgery foods. Long-standing chronic stress increases the hunger. Some might even eat while they are not hungry (Creagan, 2016). This is called emotional or stress eating. Nursing work is acknowledged to be stressful with diverse working shifts. Stress and working shifts affect how and what foods nurses eat and escalates their risk of weight gain and obesity (Buss, 2012; Harding, et al, 2013; Creagan, 2016; Block, Zaslavsky, Ding & Ayanian, 2009).

2.4.6 Stress and Psychological Health

Depression could be as result of too much protracted stress. Stress whether chronic or acute can result in depression. The body's mechanism to response to stress gets overworked and leads to a reduction in hormones such as dopamine, serotonin and neurotransmitter which cause depression. Dopamine, serotonin and neurotransmitter are hormones responsible for regulation of sex drive, appetite, sleeping and manifestation of good moods. Depression can be the outcome of futile attempts to deal with stressing events and or chronic stress (Hall-Flavin, 2014; Martin, 2016).

People react to stress by being anxious. Nonetheless, anxiety disorder can result from extreme stress. This makes a person become aggressive to stressful circumstances. Physical illness can also manifest in the body as a result of anxiety disorder. Nurses record high rate of depression and anxiety as a result of their exposure to high stressful situations (Khalid, Irfan, Sheikand Faisal, 2010; Cheung & Yip, 2015, and Abbas, Abu Zaid, Hussaein, Khaled, AlHamdan, & Bin Abdulaziz, 2013).

To balance the psychosocial behaviour of humans, sleeping has an important role to play. It is sometimes difficult to sleep as a result of stress from school, family, work issues keep the mind busy during the night. The level of stress hormone (cortical) increases with too much stress and this upsets the normal sleeping patterns of a person (Da Rochal & De Martino, 2010). This could result in burn out from job and emotional exhaustion. Insomnia and short sleep was found to be a resultant of occupational stress (Utsugi, Saijo, Yoshioka, Horikawa, Sato, Gong & Kishi, 2005). Busy and stressed people have less sleep. Emotional exhaustion, high level of stress and low job satisfaction are common among nurses. This is mainly because nursing is a stressful and

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challenging profession with lots of night shifts, sleep deficiency and responsibilities (Dorrian, Paterson, Dawson, Pincombe, Grech & Rogers, 2011).

The sexual desire of an individual is affected when the person can't handle workload that is more than he can handle. It affects the person's self-esteem and sexual drive. There is therefore a tendency of turning their back to their sexual needs (Seliger, 2016). Also, some mental health conditions such as depression and anxiety subdue sexual desire. The end result of stress is anxiety and depression. The sexual harmony of nurses is affected by stress (Lee, Lung, Kao, & Lanlee, 012). In order to maintain and improve caregiving quality, officials of hospitals should assist nurses in handling work stress by making positive changes that will impact positively on the sexual accord and quality of life of nurses (Lee, Lung, Kao, & Lanlee, 2012).

2.4.7 Stress and memory and concentration problems

The modern life style of people inevitably results in stress. This upsurges the stress hormone (cortical) affecting the functioning of the brain which places an individual at danger of various mental health problems. The continuous risen of stress hormones does not only negatively affect our physical body but it also negatively affects the brain (Alban, 2016). The cortical hormone influences the functioning of the brains and causes some brain related stress symptoms such as concentration problems, memory problems and anxiety. This can result in the shrinking and discontinuation of new neurons in the hippocampus of the brain, which serves as reservoir for memories. The hippocampus is also relevant for emotional harmony, learning, memory and closing the stress response to a stressful condition when it ends (Alban, 2016). In comparison to other professions, nurses encounter a higher rate of job stress which could lead to cognitive failure. This places the safety of patients and the health of the nurses themselves at risk by affecting their physiological rhythm (Reed, 2013).

The study of Mipark and Souk young (2013), which included 279 nurses that have worked for a minimum of 6 months in five general hospitals in Korea indicated that job uncertainty, job stress, and lack of job autonomy were the main factors triggering nurse's cognitive failure. Patient safety incidents also were affected by cognitive failure, shift work, and job stress. Kane, (2009) also found that Stress related to shortage of staff, work deadlines, insufficient pay, conflict with patient and relatives were the factors leading to psychosomatic disorders like stiffness in neck and shoulders, acidity, cognitive problem, back pain, anger and worried among Indian nurses.

2.4.8 Coping strategies towards stress

According to Lazarus and Folkman, (1984), coping and appraisal are mediators for the relationship between an individual and his/her environment. In the medical setting like mental health facility, stress associated with the job of practices abounds and may vary or occur in different degrees and therefore different strategies can be used to cope with the situation.

In dealing with job related stress that mental health nurses frequently faced in their quest to deliver effective medical care to the mental challenged and patients, they devised strategies and coping mechanisms of effectively managing the situation as pointed by Lazarus (1966). Their ability to cope depends on several factors that could be resources availability, socio-demographic factors such as age, level of experience, education, position and the unit of service.

There are abundant means of managing stress at the workplace. Physical exercises and therapies have been proved to be effective tools in managing stress at the workplace. Cohen (1984) however, argues that there is no one size fits all strategy for managing stress. The management of stress therefore varies one source and nature of job to another. This notwithstanding, it is believed that

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the best ways for reducing stress is through healthy coping strategies. The first step to effective stress management is to understand oneself better and to appreciate what constitutes stress and how one reacts to stressful situations.

To cope according to the Online Dictionary is "to face and deal with responsibilities, problems, or difficulties, especially successfully or in a calm or adequate manner". In the nursing context, managing the demands that arise from the stressful nature of the job effectively is also seen as coping with the stress. Lockley et al. (2007) argue that establishing work limits for health workers is ideal in preventing fatigue and stress arising from their tasks.

Stress can be associated with working hours at the hospital. According to Fielden and Peckar (1999), stress is higher related to the number of hours that doctors, nurses and other health workers take at the hospital. Also, the provision of social support is seen as an ideal way with coping of stress or even preventing it outright.

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: a 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 & Lambert (2006) indicated that nurses used more problem-focused coping rather than emotion-focused coping. According to Lambert et al (2004a), nurses who indicated that they were likely to change nursing career found that accepting responsibility and escape-avoidance were their best coping strategies.

The results of the study by Lee (2003) indicated an inverse association between direct coping strategies and occupational stress, and a positive association between perceived health status and

coping. The previous studies indicate that the better use of coping strategies, the less occupational stress experienced. Healy & McKay (2000) has suggested that problem-focused strategy is associated with better mental health when coping with occupational stress. Boey et al (1997) indicated that nurses in Singapore prefer self-help coping strategies to seek social support from other nurses or supervisors. American urban nurses according to Bowman & Stern (1995) reported that coping strategy used to deal with work-related stressors depends on the situation and the past successful experience in the similar stressful situation.

Prolonged stress without effective coping strategies affects not only nurses" work life but also their nursing skills (Lee et al, 2005). On the other hand, nurses who apply effective coping strategies when dealing with occupational stressors will increase their job satisfaction (Welbourne et al, 2007). Dorrian et al (2011) found that about 60% of Australian nurses and midwives who participated in their study reported using sleep aids. About 20% of participants reported taking prescription medications and 44% of nurses and 9% of midwives reported alcohol use to help in sleeping more than once during the study.

Lambert et al (2004b) indicated that, regardless of country, the following four coping strategies were utilized: self-control, seeking social support, planful problem solving and positive reappraisal. The effective coping when individual faced with loss or adversity is called resilience (Tugade & Fredrickson, 2004: 320) which indicates the ability of the individual to overcome negative situations. It is characterized by the ability to absorb high levels of upsetting change while showing minimal dysfunctional behavior (Werner, 2004) to undergo individual change allowing the person to survive (McGee, 2006). Different factors that may affect one's ability to cope include social, organizational support (Ekedahl & Wengstrom, 2006; Fitch et al, 2006), attitudes and

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circumstances (Hinds et al, 1994), personal and professional experiences and resilience (Ablett & Jones, 2007).

Some nurses can cope with stress effectively, while others cannot (Quattrin et al, 2006). Resilience is one of the individuals and collaborative factors that mediate stress among nurses (Cunningham, 2003; Sherman et al, 2006; Ablett & Jones, 2007), and can be either physiological or psychological mediator (Tusaie & Dyer, 2004). Resilience in nurses had a negative association with occupational stress and had a positive association with occupational satisfaction (Kim et al, 2011; Judkins & Rind, 2005), and positive correlation with a lower prevalence of PTSD, anxiety or depression, and burnout (Mealer et al, 2011). It is highly recommended that nurses should develop resilience to overcome effectively the professional obstacles they face in their work (Jackson et al, 2007). Understanding how nurses can cope and the presence of resilience among them will help to offer better support to nurses in order to prevent the results of exposure to high levels of stress (Zander et al, 2010).

The extent to which nurses experience occupational stress is determined by the success of stress coping mechanisms adopted by the nurses to be able to cope with stressors related to their job situation (Sveinsdottir et al., 2006). Coping strategies include problem-focused coping (which involves the act of confronting or dealing directly with the source of stress); reappraisal (thus reflecting on the import of actions taken to deal with workplace stress); avoidance coping (thus actions taken to avoid or get one distracted from the problem at hand); and then emotional coping (thus actions geared towards addressing or controlling how one responds emotionally to stressful situations). If nurses are able to manage their stress well, they will be able to have a more positive impact on the lives of people around them and the stressors from other persons will have a less negative effect on them (Dapaa, 2014).

Callaghan, Tak-Ying, and Wyatt (2000) found that the most frequently used coping strategy among nurses was venting to, giving and receiving social support. They identified certain harmful coping strategies that nurses adopted. These coping strategies included smoking, the excessive use of drugs or other medicinal substances and the consuming of alcohol. Hope, Kelleher, and O'Connor, 1998) also posited that nurses resort to eating food in order to cope with stress. According to Sullivan (1993), coping strategies that were found to have been adopted by nurses to relieve their stress and level of dissatisfaction included, but it was not limited to, problem-solving techniques, acceptance of responsibility, having positive thoughts about situations in life and avoiding stressful situations entirely.

2.4.9 Summary of Literature Review

In summary, the literature review touched on the overview of stress to look at some of the definition of stress. Theories such as the transactional model of stress (Lazarus & Folkman, 1984), theory of work design (Karasek, 1979), salutogenic model of stress (Hanson, 2007), and transactional theory of stress and coping (Lazarrus, 1966) were also reviewed to aid in the development of the conceptual framework to guide the study. The empirical review touched on prevelance of stress among nurses, causes of stress, management issues and stress, effects of stress, stress and physical health, stress and psychological health, stress and memory and concentration problem, and coping strategies towards stress. Although, much has been done on the issue of stress in the health sector, focus has not been placed on psychiatric health workers. There is also paucity on literature pertaining to Ghana.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methods that were followed in carrying out this research. The issues covered in this chapter are the research paradigm, research methods, research design, study area, population sample and sampling procedure, sample size determination, sampling method, inclusion and exclusion criteria and instrument for data collection. It further explains the procedures that were followed in data collection, processing, and analysis. Ethical considerations are also discussed.

3.1 Research Paradigm

A research paradigm is "a set of beliefs, values and techniques which are shared by members of a scientific community and which acts as a guide or map dictating the kind of research problems scientists should address and the type of explorations that are acceptable to them" (Kuhn, 1970) cited in Boateng (2016). Identifying philosophical ideas in research is very important. Despite the fact that philosophical underpinning remains largely hidden, the research can be influenced by it (Slife and Williams, 1995). Therefore, it is necessary that every research work relates to a particular scientific community and share in its' ideologies and assumptions.

In this regard, this study was based on the Pragmatic paradigm. Pragmatism as a worldview is a belief in actions, situations, and consequences rather than antecedent conditions (Cherryholmes, 1992). The Pragmatists argue that in conducting a research, emphasis should be placed on the problem and outcomes, not the methods and procedures (Creswell, 2003). Moreover, Pragmatists argue that research occurs in a context and should aim at changing phenomena. The Pragmatic worldview does not limit researchers to a particular method but gives them the opportunity to choose the methods that best fit their study. The Pragmatic philosophy has been recommended for mixed methods studies (Creswell, 2009).

3.2 Research Methods

There are three research methods: qualitative, quantitative and mixed methods. Qualitative researchers adopt an inductive style to explain or understand the meaning individuals or a population giveaq to a particular social phenomenon (Creswell, 2013). Quantitative researchers, on the other hand, adopt a deductive approach to research. They focus on testing hypotheses, theories and measuring relationships between variables (Creswell 2013). The proponents of mixed methods approach believe in doing what 'works within the rules of research to investigate, to predict, to explore, to describe and to understand a phenomenon (Johnson & Onwuegbuzie, 2004; Teddlie & Tashakkori, 2003).

Specifically, the concurrent mixed methods approach was adopted for this study. This approach allows the researcher to collect both quantitative and qualitative data at the same time and then combines the information in the interpretation of the overall findings (Creswell, 2009). This approach was adopted based on the assumption that collecting both sets of data will help to better

understand the research problem better. Furthermore, it is believed that all research methodologies have weaknesses, therefore adopting a mixed method would help the study to eliminate the weaknesses of both quantitative and qualitative research methodologies (Johnson & Onwuegbuzie, 2004).

3.3 Research Design

A research design has been defined as "a plan and a procedure for research that span the decisions from broad assumptions to detailed methods of data collection and analysis" (Creswell, 2013). In other words, a research design is a logical structure for scientific investigation. Conserving the nature of the research problem at hand, Cross-Sectional Survey research design was adopted for this study. The cross-sectional design allows the researcher to study a particular phenomenon within a population at a particular point in time (Creswell, 2009). Bhattacherjee, (2012) also argues that a survey design involves using a standardized research instrument such as questionnaires to collect data about people, their perception, preferences, thoughts, and behaviour. Unlike other research designs, the survey is a flexible research design and can elicit both quantitative and qualitative data depending on how it is structured and administered (Creswell, 2013). In addition, surveys permit comparative analysis of subgroups within a population. Surveys use more convenient instruments that are easier to administer due to its unobtrusive nature. Bhattacherjee, (2012) argued that a survey is an ideal design for collecting data from a large population that will be too difficult to study directly. Finally, survey design is less costly since it allows the researcher to collect the different and large amount of data at a point in time.

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3.4 Study Area

Accra Psychiatric Hospital (APH) was the setting for this study. It is among the three major psychiatric hospitals in Ghana that provides mental health care to the people of Ghana. The hospital houses various mental health care professionals such as psychologists, psychiatrists, psychiatric nurses, counsellors etc. However, this study concentrated on only psychiatric nurses because they are many and also spend more time with clients than other mental health care professionals. The choice of the Accra Psychiatric Hospital was due to its strategic location and it being the largest among the three psychiatric hospitals in Ghana.

3.5 Population, Sample and Sampling Procedure

The population for this inquiry was all nurses in Accra Psychiatric Hospital. Psychiatric nurses constitute a larger proportion of the mental health care workforce at APH. The hospital has an estimated nursing population of about five hundred. Respondents were sampled from this population. Sampling is a process of selecting a portion, piece, or a segment that is a representative of a whole (Onwuegbuzie and Collins, 2007). Sampling makes it possible for the researchers to infer or generalize the research findings to the larger population.

3.5.1 Sample Size Determination

The sample size for the quantitative aspect was calculated with the aid of Open Epi Info software (Open Source Epidemiologic Statistics for Public Health) version 3.01. Open Epi is an open source software for Epidemiological statistics and other health related disciplines. The software calculates the sample size using the design effect, population size, the estimated proportion and desired

absolute precision. The design effect is measured as the ratio of the variance of the estimate of the actual design used to produce the estimate to the variance of the estimate assuming the same data to have come from a simple random sampling (Henderson, R. H., & Sundaresan, 1982). The design effect is important when the sampling technique is cluster sampling since it assumes that the sampling technique is simple random. Therefore, in situations where simple random sampling is used, the design effect used can be small since sampling errors have been compensated for by the simple random sampling technique (http://www.openepi.com/SampleSize/SSPropor.htm).

The sample size was calculated using a design effect of one, and an estimated proportion of 50%, and a population size of 450. The predetermined sample size for the study is 185 nurses. To cater for non-responses and data uncertainties, 10% of 300 was added to the calculated sample size making a total of 215 nurses. The formula and Table 3.1 below shows how the sample size was predetermined.

Formula for sample size.

$$n = deff \times \frac{Npq}{\frac{d^2}{1.96^2}(N-1) + pq}$$

n= sample size

deff= design effect

N= population size

p= estimated proportion

q= 1-*p*

d= desired absolute precision /absolute level of precision.

Table 3. 1: Sample size determination

Description	Value
Population size (*N*) (For finite population correction factor)	450
Hypothesized % frequency of outcome factors in the population (*p*)	50% ± 5
Confidence limits as % of 100 (absolute ± %) (*d*)	5%
Design effect (simple random sampling) (*DEFF*)	1
Sample size (*n*) for 95% confidence level	215

Source: Open Epi version 3.0, open source calculator (SSpropper).

The choice of a sample size for the in-depth interview was guided by the need to obtain rich data. Thus, thirty nurses were purposively selected for the study with the concept of saturation in mind. An interview is of the essence in getting diverse information from individuals. Marshall *et al.,* (2013) found no evidence that studies with over 30 interviews yielded significantly more impact. Hence, 30 samples were selected for the study. In spite of this, the sample size was adjusted in the course of the data collection bearing in mind the concept of saturation and adequacy in qualitative data collection (DiCicco-Bloom & Crabtree, 2006). The sample size that was employed in this study provided the grounds to engage in a critical data analysis. It has been suggested that qualitative study can obtain detail understanding of issues from comparatively fewer respondents using the right methods (DiCicco-Bloom & Crabtree, 2006). Unlike quantitative studies that

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require that samples are large enough for statistical inferences that will result in the generalization of the findings, qualitative studies are not concerned about generalization. At the 20th respondent, new ideas and themes stop emerging from the data. As such, this study considered views from a total of 20 respondents, drawing from the principles of saturation.

3.6 Sampling Method

Two sampling techniques were adopted in this study. Within the selected healthcare facility, the simple random sampling technique was adopted to select participants for the quantitative aspect of the study. The Simple Random Sampling technique is a probability sampling technique that gives all participants an equal chance of being selected hence, reducing sampling bias (LoBiondo-Wood & Haber, 1990). It supports generalization of findings and remains the simplest but reliable probability sampling techniques (Bhattacherjee, 2012).

The Purposive Sampling technique was adopted to select respondents for the qualitative aspect of the study. Purposive sampling allows an initial understanding of the situation, and to identify relevant groups with experiences relating to the topic under study (Palinkas, et al., 2014). This technique was used because the study selected nurses working at the APH during the period of data collection. The purposive sampling technique was used in an attempt to get respondents, who have in-depth experience on the subject under discussion. The nurses who took part in the indepth interview were allowed to select their own time and place of convenience for the interview to take place.

3.7 Inclusion and Exclusion Criteria

The Accra Psychiatric hospital was the setting for the study excluding the remaining two psychiatric hospitals in Ghana; Pantang and Ankaful. Accra Psychiatric hospital was chosen because it is believed to be the largest among its peers. Both male and female nurses were on duty during the collection period and agreed to participate were taken through the sampling process. On the other hand, nurses who refused to participate and those on leave or not on duty during the data collection period were excluded from the study. Moreover, student nurses in clinical practice were also exempted from the study because they were not the permanent staff of the hospital. Moreover, was anticipated that they might not have much experience regarding the topic in question since they are still undergoing training. In addition, physicians, administrators, and other non-nursing staffs were excluded.

3.8 Instrument for Data Collection

Data collection was done between the month of January and March 2017. Taking the research design and objectives into consideration, the ideal research instruments for data collection were a structured questionnaire and an in-depth interview guide. Creswell (2009), argues that in mixed methods, the researcher can collect primary data both qualitative and quantitative concurrently using both closed-ended and open-ended items on the same questionnaire. The questionnaire will be categorized into four main sections. Section one will collect data on the participants' socio-demographic features such as age, education, gender etc. The remaining three sections each covered an objective of the study. The in-depth interview guide, on the other hand, was categorized into three sections with each section covering an objective of the study.

3.9 Data Collection Procedure

Data collection was done at the premises of the Accra Psychiatric Hospital. Questionnaires were administered in a face to face interview approach to participants by the researcher. Prospective participants who successfully went through the sampling process were asked to consent by signing a consent form. Before each interview, the researcher introduced herself and the purpose of the study to participants. Issues of misunderstanding regarding the study were clarified before questionnaires were given out. Participants who did not feel comfortable to continue with the interview were given the freedom to exit without any restrictions. Every completed questionnaire was cross-checked by the researcher and follow-ups were made on unclear responses.

3.10 Ethical Consideration

Ethics in research refers to the correctness of the researcher's behaviour in relation to the right of participants of the study or people who may be affected by it (Creswell, 2013). Ethics can also be considered as a system of accepted beliefs which control behaviour, especially such as a system based on morals. Not being ignorant of the repercussions associated with ethical violations in scientific research, the researcher did due diligence during and after the data collection. In this light, ethical clearance was taken from the University of Ghana Ethics Committee and approval was sought from Greater Accra Regional Health Directorate and management of APH before data collection commenced.

Also, participation was purely voluntary and nobody was coerced or given incentives to participate. Participants' information was handled with a high level of confidentiality. Participants who did not feel comfortable to continue with the study were allowed the freedom to exit without any negative consequences.

3.11 Data Analysis

Data collected from nurses were entered and edited using the Statistical Package for Social Sciences (SPSS) version 21. This process comprises coding of the various variable options on their appropriate scales. Tables were used to present data collected from respondents. Bivariate descriptive statistics (cross-tabulations and chi-square), binomial logistic regression, multiple regression, t-test and factor analysis were used to establish relationships between the dependent variable and the independent variables.

For the qualitative aspect of the study, a systematic qualitative orientated text analysis was carried out. Issues were summarised, explained and organized to demonstrate the paramount issues that were identified from the data. The transcripts were read through several times while taking note of emerging issues. Later, these issues were put under various themes. Comparisons were made across themes and some related themes were merged. The final themes were presented and subsequently discussed in relation to empirical literature (Mayring, 2014)

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents results of data collected from mental health nurses at the Accra Psychiatric Hospital. The results are presented based on the socio-demographic characteristics and objectives of the study; to identify the causes of job-related stress among mental health nurses in APH; to assess the effects of job-related stress on mental healthcare delivery in APH, and to explore coping strategies among mental health nurses in APH. Based on the key results found, discussions are then conducted.

4.1 Socio-demographic characteristics of respondents

The socio-demographic characteristics of the mental health nurses included in the study were based on their gender, age, rank, level of education, ward/department, marital status, shift type, and the number of working hours. Tables 4.1 and 4.2 present the characteristics in relation to their socio demographic and working characteristics.

From Table 4.1, 76.3 percent of the nursing were females while 23.7 percent were males. More males (74.5%) than females (68.3%) indicated that they experienced stress as a result of their work. With regards to age, most of the respondents were in the 20s (58.1%) while just 4.2 percent were 40–49 years old at the time of the study. Regarding education, it was realized that the comparative majority of the respondents were diploma holders (44.2%) while certificate and bachelor's degree holders constituted 28.8 percent and 27 percent respectively. With regards to marital status, it was

realized that most of the nurses were married (62.3%) while less than one percent were separated from their partners

From Table 4.2, it is seen that the respondents included in the analysis were either enrolled nurses (18.6%), staff nurses (27.4%), senior staff nurses (31.6%), nursing officers (16.7%), senior nursing officers (5.6%). The comparative majority (35.8%) of the nurses reporting working in the female ward of the hospital at the time of the study. The majority of the respondents had worked as mental health nurses for up to five years with most of them working on afternoon shifts (52.6%) and generally for 5–7 hours (84.2%) at the time of the study.

A chi-square test was conducted to examine the relationship between the socio-demographic characteristics of the respondents and their experience of work-related stress. From Table 4.1, it was realized that while age (χ^2=8.519, p=value=0.014), rank (χ^2=12.751, p=value=0.012), ward (χ^2=9.529, p=value=0.014), and shift type (χ^2=14.521, p=value=0.011) were statistically related to stress among the respondents, sex (χ^2=0.713, p=value=0.398), level of education (χ^2=0.049, p=value=0.976), marital status (χ^2=4.614, p=value=0.100), number of years in nursing practice (χ^2=3.579, p=value=0.167), and number of working hours (χ^2=0.086, p=value=0.769) were statistically insignificant.

Table 4. 1: demographic characteristics of respondents and their relationship with stress among mental health nurses

Variable	Work stress		Total Freq. (%)	Chi-square	p-value
	Stressed Freq. (%)	Not stressed Freq. (%)			
Sex				0.713	0.398
Male	38(74.5)	13(25.5)	51(23.7)		
Female	112(68.3)	52(31.7)	164(76.3)		
Age				8.519	0.014*
20-29	84(67.2)	41(32.8)	125(58.1)		
30-39	63(77.8)	18(22.2)	81(37.7)		
40-49	3(33.3)	6(66.7)	9(4.2)		
Level of education				0.049	0.976
Certificate	43(69.4)	19(30.6)	62(28.8)		
Diploma	67(70.5)	28(29.5)	95(44.2)		
Bachelor's degree	40(69.0)	18(31.0)	58(27.0)		
Marital status				4.614	0.100
Single	89(66.4)	45(33.6)	134(62.3)		
Married	59(73.8)	21(26.3)	80(37.2)		
Separated	0(0.0)	1(100.0)	1(0.5)		

Source: Fieldwork, 2018

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Table 4. 2: Workplace characteristics of respondents and their relationship with stress among mental health nurses

Variable	Work stress		Total Freq. (%)	Chi-square	p-value
	Stressed Freq. (%)	Not stressed Freq. (%)			
Rank				12.751	0.012*
Enrolled Nurse	28(70.0)	12(30.0)	40(18.6)		
Staff Nurse	39(66.1)	20(33.9)	59(27.4)		
Senior Staff Nurse	48(70.6)	20(29.4)	68(31.6)		
Nursing Officer	28(77.8)	8(22.2)	36(16.7)		
Senior Nursing Officer	7(58.3)	5(41.7)	12(5.6)		
Ward/department				9.529	0.014*
B	5(83.3)	1(16.7)	6(2.8)		
C2	4(80.0)	1(20.0)	5(2.3)		
Female	53(68.8)	24(31.2)	77(35.8)		
G2	2(66.7)	1(33.3)	3(1.4)		
Children	6(75.0)	2(25.0)	8(3.7)		
Male	51(71.8)	20(28.2)	71(33.0)		
OPD	8(53.3)	7(46.7)	15(7.0)		
Reception	1(50.0)	1(50.0)	2(0.9)		
Special	15(78.9)	4(21.1)	19(8.8)		
VIP	3(33.3)	6(66.7)	9(4.2)		
No of years in nursing practice				3.579	0.167
0-5	100(65.8)	52(34.2)	152(70.7)		
6-10	40(78.4)	11(21.6)	51(23.7)		
11-15	8(66.7)	4(33.3)	12(5.6)		
Shift type				14.521	0.011*
Morning	61(63.5)	35(36.5)	96(44.7)		
Afternoon	82(72.6)	31(27.4)	113(52.6)		
Evening	5(83.3)	1(16.7)	6(2.8)		
Number of working hours				0.086	0.769
5-7	125(69.1)	56(30.9)	181(84.2)		
10-12	23(67.6)	11(32.4)	34(15.8)		

Source: Fieldwork, 2018

4.2: Causes of work-related stress among mental health nurses

In order to understand the causes of work-related stress among mental health nurses at the Accra Psychiatric Hospital, the level of stress among the nurses was first of all ascertained. This is presented in Table 4.3. In Table 4.3 for instance, while 40 percent of the nurses argued that their job was stressful, 22.8 percent said it was not. At the extremes, 28.8 percent said they usually felt very stressful due to the work and 8.4 percent said they were 'Not at all stressful'.

Table 4. 3: Level of work-related stress among mental health nurses

Level of stress	Frequency	Percentage (%)
Very stressful	62	28.8
Stressful	86	40.0
Not stressful	49	22.8
Not at all stressful	18	8.4
Total	**215**	**100.0**

Source: Fieldwork, 2018

A dichotomous variable of "stressed" and "Not" stressed was created from the four-points Likert-scale item on stress which was presented in Table 4.3. To arrive at the overall stress variable (Figure 4.1), the two responses of 'very stressful' and 'stressful' were merged to become 'stressed' while 'not stressful' and 'not at all stressful' were merged as 'not stressed'. Thus, about 68.8% of the respondents were stressed at work while 30.2% were generally not stressed.

To establish the main causes of work-related stress among mental health nurses, respondents were asked to answer fifteen items on a five-point Likert-scale comprising Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), and Strongly Agree (SA). A chi-square test was also

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conducted to find out if the self-reported causes had any statistically significant relationships with being stressed due to work demands.

From Table 4.4, most of the respondents were in disagreement ('disagree' and 'strongly disagree') to the statements that Unfriendly and hostile attitudes of colleagues toward them at the workplace (73.4%), complicated job responsibilities (55.8%), and discrimination based on age and sex (54.9%) were the causes of stress at their workplace. The main causes of work-related stress among the nurses, however, were (based on 'agree' and 'strongly agree'); the risky and unhealthy work conditions at the hospital (76.7%), low salaries (79.5%), the high patient to nurse ratio (71.2%), and limited career advancement opportunities (55.8%).

Table 4. 4: Causes of work-related stress among mental health nurses

Cause	SD	D	N	A	SA	χ^2	p-value
Unfriendly and hostile attitudes of colleagues toward me at workplace	66(30.7)	92(42.8)	23(10.7)	28(13.0)	6(2.8)	1.946	0.746
Complicated job responsibilities	41(19.1)	79(36.7)	32(14.9)	48(22.3)	15(7.0)	3.537	0.472
Unsatisfactory remarks and demands from superior	31(14.4)	63(29.3)	34(15.8)	64(29.8)	23(10.7)	3.608	0.462
Unfavourable shift schedules	38(17.7)	58(27.0)	25(11.6)	82(38.1)	12(5.6)	2.935	0.569
Inability to complete huge workloads	31(14.4)	73(34.0)	48(22.3)	44(20.5)	19(8.8)	2.288	0.683
Strict monitoring and supervision	36(16.7)	69(32.1)	37(17.2)	56(26.0)	17(7.9)	9.155	0.046*
Pressure to complete duties on time	34(15.8)	71(33.0)	40(18.6)	54(25.1)	16(7.4)	9.931	0.042*
Risky and unhealthy work conditions	14(6.5)	22(10.2)	14(6.5)	65(30.2)	100(46.5)	3.865	0.425
Low salaries	16(7.4)	9(4.2)	19(8.8)	69(32.1)	102(47.4)	4.587	0.332
Withdrawal of casual leave	32(14.9)	41(19.1)	59(27.4)	34(15.8)	49(22.8)	7.123	0.130
Poor relationship with management and/ or superiors Role	15(7.0)	41(19.1)	61(28.4)	67(31.2)	31(14.4)	4.193	0.380
High patient to nurse ratio	19(8.8)	24(11.2)	19(8.8)	75(34.9)	78(36.3)	6.676	0.154
Limited career advancement opportunities	38(17.7)	29(13.5)	28(13.0)	72(33.5)	48(22.3)	3.261	0.515
Sex/age discrimination	60(27.9)	58(27.0)	68(31.6)	19(8.8)	10(4.7)	7.010	0.135
Disregard for effort at work by superiors	37(17.2)	42(19.5)	43(20.0)	52(24.2)	41(19.1)	5.793	0.215

4.3 Influences of demographic characteristics on workplace stress

To ascertain the specific attributes which increased the chances of being stressed as mental health nurses, a binary logistic regression analysis test was conducted based on the variables (age, rank, ward, and shift type) which were statistically significant in the chi-square analysis. The dependent variable used was the dichotomous stress variable that was created in the previous section of this chapter. The initial tests for the goodness of fit for model showed that the model was well fitting ($\chi^2 = 8.27$, p = 0.023). The model correctly classified 70.5% of the cases and this was more than the initial classification of 60.8%. The results of the logistic regression analysis are as provided in Table 4.5.

Using age group between 20 to 29 years as reference category for age, it was realised that those in the 30s had a lower probability of becoming stressed than those aged between 20 to 29 years (OR=0.726, 95% CI= 0.330–1.599). Nurses in the 40s were however 6.79 times more likely to be stressed by their work than those in their 20s.

The impact of rank on the stress of health workers was statistically significant across all the ranks. Aside nursing officers who recorded lower probabilities (OR=0.677, 95% CI= 0.211–2.169), nurses of all other ranks were more likely to be stressed by the nursing job than enrolled nurses. Senior nursing officers, for instance, recorded the highest likelihood of being stressed by their work. The highest likelihood of work-related stress (OR=9.045, 95% CI= 0.613–133.425) was also recorded among nurses who worked in the VIP ward of the hospital at the time of the study. Respondents who work afternoon (OR=0.654, 95% CI= 0.332–1.288) and evening (OR=0.508,

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95% CI= 0.045–5.695) shifts were respectively less likely to be stressed by their job than those

who work morning shifts.

Table 4. 5: Binary logistic regression on the influence of socio-demographic characteristics on work-related stress among mental health nurses

Variable	Coefficient	Odds ratio	95% CI	p-value
Age				
20-29		Ref.		
30-39	-0.32	0.73	[0.330–1.599]	0.04
40-49	1.92	6.79	[1.201–38.412]	0.03
Rank				
Enrolled nurse		Ref.		
Staff nurse	0.31	1.37	[0.515–3.632]	0.53
Senior Staff Nurse	0.10	1.10	[0.416–2.923]	0.85
Nursing Officer	-0.39	0.68	[0.211–2.169]	0.51
Senior Nursing Officer	0.95	2.58	[0.548–12.160]	0.23
Ward/Department				
B		Ref.		
C2	-0.99	0.37	[0.012–11.055]	0.06
Female	0.46	1.59	[0.165–15.213]	0.07
G2	0.54	1.71	[0.064–46.064]	0.07
Children	0.50	1.64	[0.102–26.576]	0.07
Male	0.37	1.45	[0.148–14.221]	0.08
OPD	0.71	2.03	[0.168–24.519]	0.06
Reception	1.77	5.85	[0.168–203.019]	0.03
Special	-0.16	0.85	[0.069–10.371]	0.09
VIP	2.20	9.05	[0.613–133.425]	0.00
Shift type				
Morning		Ref.		
Afternoon	-0.42	0.65	[0.332–1.288]	0.22
Evening	-0.68	0.51	[0.045–5.695]	0.58

Source: Fieldwork, 2018

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4.4 Effects of work-related stress on health care delivery among mental health nurses and their coping strategies

The effects of work-related stress among the respondents were measured with five items on a five-point Likert scale of 'Never', 'Rarely', 'Sometimes', 'often', 'always'. For all the five items, the comparative majority of the respondents reported that sometimes "stress affects my health negatively" (38.6%), 'stress affects my normal social activities if not controlled' (37.7%), 'dealing with job stress affects me financially since I pay money for medication or other means of destressing' (27%), 'I find it difficult concentrating on my work when am stressed up' (33%), and that 'anytime am stressed up, I perform poorly both clinically and administratively' (28.8). A statistically significant relationship was, also realized between work-related stress and respondents' finding it difficult to concentrate on work when they are stressed

In order to cope with the stressful demands of their work, the comparative majority of the respondents indicated that sometimes they go on leave when they realise they needed one (40%), able to do what they want in their free time as a way of distressing (36.7%), they go for regular physical check-ups (43%), they exercise regularly (37.7%), they practice relaxation techniques through social activities (35.3%), establish priorities for the use of their time (34%), and are able to stick to their priorities (33.5%). Respondents constituting 29.8 percent also noted that they often approach people for help at work whenever they realize that they need it.

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Table 4. 6: Effects of work-related stress among mental health nurses

Effect	Never	Rarely	Sometimes	Often	Always	χ^2	p-value
Stress affects my health negatively	11(5.1)	24(11.2)	83(38.6)	61(28.4)	36(16.7)	1.818	0.769
Stress affects my normal social activities if not controlled	20(9.3)	32(14.9)	81(37.7)	50(23.3)	32(14.9)	1.025	0.906
Dealing with job stress affects me financially since I pay money for medication or other means of distressing	31(14.4)	43(20.0)	58(27.0)	38(17.7)	45(20.9)	0.783	0.941
I find it difficult concentrating on my work when am stressed up	16(7.4)	39(18.1)	71(33.0)	40(18.6)	49(22.8)	10.857	0.028*
Anytime am stressed up I perform poorly both clinically and administratively	25(11.6)	50(23.3)	62(28.8)	41(19.1)	37(17.2)	3.333	0.504

Table 4. 7: Coping with Job-related Stress among Mental Health Nurses

Coping strategy	Never	Rarely	Sometimes	Often	Always
Whenever I realize that I need a leave, I take one	43(20.0)	38(17.7)	86(40.0)	18(8.4)	30(14.0)
I am able to do what I want in my free time	22(10.2)	30(14.0)	79(36.7)	38(17.7)	46(21.4)
I get regular physical check-ups	38(17.7)	62(28.8)	73(34.0)	27(12.6)	15(7.0)
I exercise regularly (at least 20mins.,3 times a week)	20(9.3)	54(25.1)	81(37.7)	46(21.4)	14(6.5)
I practice relaxation technique through social activities	20(9.3)	58(27.0)	76(35.3)	44(20.5)	17(7.9)
Whenever I need help at work, I am able to approach people	9(4.2)	29(13.5)	60(27.9)	64(29.8)	53(24.7)
I am able establish priorities for the use of my time	8(3.7)	5(2.3)	73(34.0)	73(34.0)	56(26.0)
I am able to stick to my priorities	7(3.3)	18(8.4)	72(33.5)	69(32.1)	49(22.8)

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QUALITATIVE ANALYSIS

The qualitative study also sought to elicit in-depth information from respondents on issues relating to workplace stress. This was done concurrently with the quantitative studies. The data was analysed and developed into various themes. The thematic framework for the qualitative study is as given in Table 4.8.

Table 4. 8: Thematic framework for qualitative study

OBJECTIVE	THEMES	
Causes of Job Stress among Mental Health Nurses in APH	1.	Aggression from patients
	2.	Inadequate logistics at the facility
	3.	Empathy
	4.	Understaffed nurses
Effects of Job Stress on Mental Healthcare Delivery in APH	1.	Physical health
	2.	Psychological health
	3.	Delay in the completion of work
Coping Strategies among Mental Health Nurses in APH	1.	Resting
	2.	Assistance from colleagues

4.5 Causes of Job Stress among Mental Health Nurses in APH

The study revealed a wide range of causes of stress among mental health nurses. These causes include aggression from patients, inadequate logistics at the facility, empathy and understaffed nurses.

4.5.1 Aggression from Patients

Narrating the causes of job stress, participants in this study revealed that the major cause of job stress is aggression from patients. According to them, their clients usually get aggressive with them which causes stress on the job. In some instances, the aggressive nature of the patients influences other calm inmates or patients to behave in

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similar aggressive fashion. About three-quarters of the respondents indicated aggression on the part of patients as the main cause of their stress at work. Some respondent noted in their statement:

"Actually, the daily job-related activities that cause stress are encountering aggressive patients. Sometimes when you encounter these aggressive patients your day becomes very stressful. Apart from that, there is nothing stressful related to the job…" -Male, 33years

"…When they [patients] get aggressive it is very difficult to take care of them [patients] especially when they are in a group. When one starts being aggressive, the others too start". –Female, 27years

4.5.2 Inadequate Logistics at the Facility

The assertion by the participants suggests that inadequate logistics is another major factor causing stress among the nurses. Essentially, these logistics such as medications, and stationery products are needed for the smooth operation at the facility. The lack of these renders some of these health workers stressed out as they have to manage with the little they are given. In an instance, some respondents noted that:

"Inadequate logistics to care for the patients such as injections, medication, stationaries, treatment sheets and other things...". –Female, 26years.

"What really brings about the stress is the facility and also not having the resources to work with. It is somehow frustrating. This makes it stressful for both us the nurses and the patients. So, I will say the facility not being adequate for the patients leading

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to overcrowding which causes aggression among the patients and stressing us the nurses". –Female, 31years

4.5.3 Empathy

The study further observed that the concern for the wellbeing of the patients was another cause for stress. A number of the respondents indicated that they felt stressed by the sight of the food being fed to the patients. Food given to inmates needs much to be desired. The respondents could not see themselves taking such meals let alone another person eat it. Some also feel stressed thinking about the wellbeing of the patients.

"…sometimes the food that comes here is really bad. Everything is off. If you see an okra soup they prepare for patients, if you see patients eating 'gari' balls with garden egg stew… In fact, looking at the food alone is very stressful let alone seeing your fellow human eat it. Hmmm". –Female, 36 years

Another respondent indicated:

"Sometimes some of the patients relapse as a result of being in the same environment for a long time so we sometimes allow them to go home for a change of environment. And as they are gone, it sometimes causes stress for us because you will be thinking about their safety and how they are being cared for; if they are taking their medication". –Male, 32years

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4.5.4 Under Staffed Nurses

High nurses to patient ratio causes work overload. This makes the nurses stressed out due to long working hours and inadequate time for rest or leisure. In such an institution that deals with mentally challenged patients, there needs to be adequate staff to handle emergencies and other injuries that may occur. However, this is not the case at the APH. One respondent had this to say:

"Our work as psychiatric nurses are stressful because we are not many. Patients to nurse's ratio are very poor and moreover, we need more male nurses on the field but if you look at the male staffs present today, for example, we are only three over here. …". –Male, 29 years

Another respondent also indicated:

"In situations where we have a lot of patients and the staffs' strength is less, naturally you become stressed up. You end up working more than you are supposed to work and it sometimes affects you". –Female, 28 years

4.6 Effects of Job Stress on Mental Healthcare Delivery in APH

The effects of stress covered in this study include physical health, psychological health, and delay in the completion of work.

4.6.1 Physical Health

The study revealed that due to the low nurse to patient ratio, stress from being overworked affects the physical health of the nurses. Some respondents also indicated undergoing physical pain from being hit by the patients. According to them, as such, they have to be on the lookout throughout the delivery of their services. For instance, a respondent had this to say:

"Under normal conditions, I am supposed to cater for two patients maybe within the morning shift. If we had enough staff, the ratio is supposed to be maybe 1:4 or something but this is the case I am looking after 30 something patients so you see where the stress is. There is a possibility that you will overwork yourself within a short period…". –Male, 33years

Another respondent also indicated:

"Physically, when you are stressed you can't even eat. You lose appetite and when you don't eat your immune system becomes weak and you will fall sick" –Female, 25 years

4.6.2 Psychological Health

The study further revealed that stress also affects the nurses psychologically and they are not able to work in their right frame of mind. This could result in mistakes in the performance of their duties. One of the respondents had this to say:

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"...I wouldn't be able to concentrate on my job. When you are stressed it is more difficult to concentrate on your work and even remember some of the things to work with. You might even miss out on some of the vital signs you are to look out for" – Female, 25 years

To support this, another respondent indicated:

"Yeah sometimes when the logistics are not there and you have to go around looking for some or improvise… If you are not mentally strong, you might get angry" –Female, 34 years

4.6.3 Delay in the Completion of Work

Some of the respondents, however, revealed that they have been trained as to how to handle stress and as such it does not really affect their work. This notwithstanding, they indicated that it sometimes causes a delay in their work. Thus, prolonging the duration of tasks. For instance, a respondent indicated that:

"As a nurse, it doesn't affect my work because I am supposed to be versatile and we have been trained for that. Even with the situations of the inadequacy of something, you are supposed to improvise and get the work done. The only thing is it might delay your work." –Female, 33years

Another respondent also indicated:

"When the logistics are not there and you have to go around looking for some or improvise. You could have finished the work within the time you spend roaming looking for logistics" –Female, 29 years

4.7 Coping Strategies among Mental Health Nurses in APH

The study also sought to explore the coping strategies of the nurses in handling stress. These strategies include resting, an assistance from colleagues.

4.7.1 Resting

It appears more than three-quarters of the respondents use resting as a means of managing or coping with stress. The respondents indicated that rest or enough sleep was very critical to keeping them fresh and able to handle the stress associated with their work. It was also evident that aside from work-related stress, respondents also had other stressors at home and as such have to make use of the little time at hand. As such some respondents indicated they sleep in the car or bus conveying them home. For instance, a respondent had this to say:

"I sleep on my way home...When I am coming to work in the morning too, I sleep to get rid of the house stress and be ready for the work stress. So, for me I manage my stress with sleep" –Female, 37 years

To support this, another respondent indicated:

"We are given off days. About one or two days in a week off so I use those days to rest. So those off days, since I won't be going to work, I don't have to wake up early in the morning so I sleep a lot and have enough rest and wake up later in the day" –Female, 29 years

4.7.2 Assistance from Colleagues

About one-quarter of the respondents also indicated they deal with stress by calling on their colleagues for assistance in dealing with the situation stressing them. This mainly applies to stress as a result of aggressive patients. The nurses sometimes call on fellow nurses who are less busy to help them restrain the aggressive patient. A careful review of the response by the participants revealed that this coping strategy was mainly used by female nurses.

Similarly, it was revealed that due to the low nurse to patient ratio, nurses sometimes have to call on other patients to help restrain fellow patients. However, patients called upon for assistance are patients who are almost well. This was what a respondent had to say:

A respondent had this to say:

"...So maybe after the dialogue and the client is still aggressive, we call for more hands and other staff from different wards to come together and be able to calm the patient." –Female, 29years

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"In managing aggressive patients, sometimes you have to call on some of the patients who are a bit ok to help you to be able to restrain the aggressive one. And even in doing that you are not so sure if the patient will help you because that patient himself is not 100% so you end up thinking about the two in the process but it is better than you struggling alone" –Male, 29 years

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0 Introduction

This chapter presents the discussion of the findings in relation to literature. The first section is a discussion of the demographic characteristics of the respondents. The subsequent sections comprise a discussion of the results according to the objectives of the study.

5.1 Socio-demographic characteristics and stress

Socio-demographic characteristics of the mental health nurses included in the study were; sex, age, rank, level of education, ward/department, marital status, shift type, and a number of working hours. Regarding sex, it was realised that most of the respondents were females. This is obvious because, nursing is generally considered a profession for females and as such, women end up becoming nurses than males (Barrett-Landau, S., & Henle, 2014).

A chi-square test conducted to examine the relationship between the socio-demographic characteristics of the respondents and their experience of work-related stress showed that age rank, ward, and shift type statistically influenced stress among the respondents significantly. A regression analysis conducted based on the significant relationship realized in the chi-square analysis revealed that older nurses were 6.79 times more likely to be stressed by their work compared to younger ones. This finding thus points the argument of Hansson, Robson, and Limas, (2001) that age-related

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changes in physical and cognitive abilities can raise adaptive challenges for older working adults. According to Hansson et al., older workers exhibit a considerable capacity to manage and cope with the stress of the job and environmental demands, but at some point, many can become overwhelmed, and find themselves at increased risk for health consequences, injury, disability, and diminished productivity.

Nurses who worked at the VIP ward recorded the highest level of self-reported stress. This could be due to the fact that because patients in the VIP ward are usually the wealthy and most respected in society, the nurses who work in the ward are usually overworked to ensure the comfortability of the clients. This thus results in the level of stress they feel at the end of the day. Working in the morning also came with the highest level of stress as realized by the regression analysis conducted. This finding may be due to the fact that most people typically report to the hospital with their ailments in the morning. Working morning shift, therefore, implies serving more people than any other shift, hence the stress.

5.2 Causes of work-related stress among mental health nurses

The main causes of work-related stress among the nurses as identified in the quantitative aspect of the study were; risky and unhealthy work conditions, low salaries, high patient to nurse ratio, and limited career advancement opportunities. These findings are in line with previous studies which argued that factors in an organisation and work environment such as work pressure, workload, role ambiguity and relationships and patient – nurse ratio are primary predictors of stress and burnout among nurses (Moreland & Apker, 2016; Khamisa, Oldenburg, Peltzer, & Ilic, 2015).

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Earlier findings have even shown that nurses and assistant nurses experience work - related injuries that are attributed to the stressful nature of their jobs (Bogaert Clarke, Willems, & Mondelaers 2013). This supports the argument of the conceptual the framework which indicates that the environment that the person appraises has a significant influence on the levels of stress of the health worker. Thus, the environment is as significant for his/her well-being and in which demand exceeds available coping resources (Lazarus & Folkman, 1986).

Other main causes of stress among psychiatric nurses as reported in other studies but which the present study did not find as stressors are inadequate supplies leading to fears of acquiring infection and concerns about performance evaluation (Sensbury Centre, 2007), leadership/management style, professional conflict and emotional cost of caring (McVicar, 2003), as well as time management issues and dealing with potentially violent or suicidal patients (Edwards & Burnard, 2003).

The qualitative aspect, therefore, sought to delve into details of the causes of stress. The findings show that aggression from patients is the major cause of stress for the nurses. With about three-quarters of the nurses being stressed from patients being aggressive. This aggressiveness is usually a result of patient's refusal to take their medication or being fed up of being overcrowded. This is in line with a study conducted by (Spector, Zhou, & Che, 2014). Spector, Zhou, and Che, 2014 argued that health professionals taking care of persons with mental disturbances are often exposed to patient aggression. The study of Magnavita, (2013), Magnavita,(2014) revealed that nurses who experience aggression from patients usually report occupational stress. Virtanen, et. al., (2012) asserted that measures need to be put in place to prevent nurses from leaving the field

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as a result of patient aggression. Since the wellbeing of the nurses is at stake. The qualitative aspect of the study also revealed inadequate logistics at the facility as a stressor which was missing in the quantitative aspect. This affirms the findings of McVicar (2003).

Rothmann, van der Colff and Rothmann (2006) in their study revealed that watching patients suffer is one of the factors causing stress at workplace for nurses. Cohen-Katz et al., (2005) also indicated that patients' exposure to pain and suffering and the trauma they go through contribute to stress among nurses. This corroborates the fact that some of the respondents in this study indicated being stressed looking at the poor nature of the food being served the clients and thinking about the wellbeing of patients.

It was observed that while most respondents did not indicate understaffed as being a major cause of work stress, they were all quick to mention it upon further probing. The respondents unanimously indicated being understaffed puts a lot of pressure on them hence stressing them up. This corroborates the findings of Arnold, Cooper, and Robertson, (1998). Arnold *et al.,* (1998) in their study indicated that extra workload as a result of being understaffed also contributes to stress among nurses.

This extra workload could be in the form of extra shifts, extended working hours, night shifts among many others. Moustaka and Constantinids, (2010) also found that increased demands on the job, staff shortage, and work overload also contribute to stress. This affirms the conceptual framework's assertion that inadequate resources contribute to workplace stress. The transactional theory of stress and coping also stresses that supplies which are in the form of support, control and ability to deal with a situation could lead to a stressful situation (Lazarus & Folkman, 1984).

5.3 Effects of work-related stress on health care delivery among mental health nurses

The effects of work-related stress as summarised by the respondents include negative effects on health, negative effects of stress on normal social activities, financial impacts, difficulty in concentration and poor performance at work. Studies have also indicated that stress is responsible for negative consequences that affect individuals and organisations equally, such as work dissatisfaction, poor performance, absenteeism, employee withdrawal, job turnover, and lower job involvement (Paulmann, Furnes, Bøkenes, & Cozzolino, 2016; Sandi & Haller, 2015). Occupational stress also contributes to low motivation and morale, decreased performance, high turnover rate, sick leave, accidents, job dissatisfaction, low-quality service, poor communication within the organisation, and conflicts.

The qualitative findings reveal that stress affects the physical health of the nurses. Aside being physically wounded, the study showed nurses suffer breakdowns as a result of the weak immune system. Ruggiero (2003) in his study argued that the stressful nature of the nursing profession is physically demanding. As such, burnout among nurses, in particular, has been reported to be higher than other health professionals owing to the nature of their work (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002).

From the findings, it was observed that stress can result in psychological health issues among nurses. According to Dunkley and Whelan (2006), health care workers, including nurses are exposed to emotional stress. This, as described by Pearlmann and Saakvitne (1995) involves a transformation of the experience of the patient to the carer

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as he or she attends to the patient, which they termed vicarious traumatization. The Maslach Burnout Model opines that continued exposure to environmental and situational stressors resulting in work-related stress contributes to emotional exhaustion, depersonalization and a lack of personal accomplishment (Maslach, Jackson, & Leiter, 1996; Golembiewski, Bordeau, & Muszenrider, Luo, 1966).

The above findings and discussions affirm the assertion of the conceptual framework which indicates that stress negatively affects the physical health and psychological health of an individual (Lazarus & Folkman, 1984). Lazarus and Folkman (1984) argued that to deal with stressful situations, there are changes in cognition, behaviour and physiological function. Notwithstanding the fact that this could work in the short term, in the long term, such changes threaten the health of the individual.

The study also found that one of the effects of stress is the delay in the time of completion of work. This confirms the finds of other studies which argued that stress negatively affects organisations. These studies argued that occupational stress contributes to low motivation and morale, decreased performance, high turnover rate, sick leave, accidents, job dissatisfaction, low-quality service, poor communication within the organisation, and conflicts (Reed, 2013; Rana & Upton, 2009; Buss, 2012; Harding, *et al.*, 2013;Dorrian, Paterson, Dawson, Pincombe, Grech & Rogers, 2011).

5.4 Coping with Job-related Stress among Mental Health Nurses

In order to cope with the stressful demands of their work, the comparative majority of the respondents indicated that sometimes they go on leave when they realise they needed one, they do what they want in their free time as a way of distressing, they go

for regular physical check-ups, they exercise regularly, they practice relaxation techniques through social activities, establish priorities for the use of their time, and are able to stick to their priorities. Others also noted that they often approach people for help at work whenever they realize that they need it.

The use of relaxation techniques and regular exercise as techniques for managing work-related stress as found in the present study, are confirmed by similar findings in previous studies where the authors argued that exercise whenever possible, reduces the level of stress experienced by nurses at work (Firth, Rosenbaum, Stubbs, Gorczynski, Yung, & Vancampfort, 2016; Sallam & Laher, 2016). A similar study by Li and Lambert (2008) on 102 nurses in China by a self-report questionnaire indicated that most workplace stressors were overload and that most commonly used coping strategy was planning.

For an in-depth comprehension of the coping strategies, the qualitative findings observed that whereas nurses have many coping strategies for dealing with stress, the most used strategy is resting through sleep. The findings of this study, however, are not consistent not with findings of other studies which stipulated that stress about work, school, family issues, can keep the mind busy at night, making it difficult to fall to sleep. Too much stress can lead to high levels of stress hormone (cortical), and disrupt healthy sleeping patterns (Da Rocha1 & De Martino, 2010).

Stress can lead to job burnout and feeling of emotional exhaustion. Occupational stress was one of the main contributing factors leading to insomnia and short sleep (Utsugi, Saijo, Yoshioka, Horikawa, Sato, Gong & Kishi, 2005). Stressed and busy people tend to get less sleep. High levels of stress, emotional exhaustion, and low job satisfaction

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are common among the nurses. This is because nursing is a challenging and stressful profession that contains lots of responsibilities, night shifts, and sleep deficiency (DorrianI, PatersonI, DawsonI, PincombeI, GrechI and RogersII, 2011).

The findings show that nurses also call on colleagues to offer them assistance in stressful situations. This is mostly the case when patients get aggressive and there is the need for extra hands to help subdue the patients. However, Boey *et al.* (1997) indicated that nurses in Singapore prefer self-help coping strategies to seek social support from other nurses or supervisors.

CHAPTER SIX

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the concluding remarks from the study. The chapter is subdivided into three major sections. The first section presents the summary of the key findings of the study while the second section presents its conclusions. The recommendations and suggestions for further research are given in the third section of the text.

6.1 Summary of Key Findings

Notwithstanding the fact that mental health nurses are more prone to job stressors, little research has been done on the effects of job stress on their activities at the hospital. This study, therefore, identified the causes of job-related stress among mental health nurses in APH, assessed the effects of job-related stress on mental healthcare delivery in APH and explored coping strategies among mental health nurses at APH. The study employed the concurrent mixed methods approach for this study.

The main findings of the study relate to the specific socio-demographic characteristics of nurses that increase the chances of being stressed as mental health nurses, the causes of work stress, effects of work stress and the coping strategies adopted by nurses to deal with stress. The study observed that the age, rank, ward and shift type are statistically significant attributes which increase the chances of being stressed. The study also revealed that nurses in their 40s are more likely to be stressed than other age groups.

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Also, with regards to rank, senior nursing officers are more likely to be stressed than other ranks of nurses. The study also indicated that morning shifts are most stressful.

Among the causes of stress, the study found that aggressive patients, inadequate logistics and low nurse to patient ratio were the major causes of stress. The study also found that strict monitoring and supervision, as well as pressure to complete duties on time, were statistically related to the occurrence of stress among nurses.

The study also showed that work-related stress affects the ability of nurses to concentrate on work when they are stressed. Stress was also found to negatively affect the physical health and psychological health of nurses. Stress also leads to a delay in the completion of work.

With regards to coping strategies adopted by nurses in dealing with stress, the study found that nurses go on leave when they realize they are stressed. Others also use their free times to sleep and have some rest. However, to cope with stress while on duty, the study found that nurses call on their colleagues for assistance in handling stressful situations such as dealing with aggressive clients.

6.2 Conclusions

The following conclusions are drawn based on the key findings of the study. Age, rank, ward, and shift are socio-demographic variables that influence the chances of increase in stress. The study further concluded that stress among mental health nurses is as a result of aggressive patients, inadequate logistics and low nurse to patient ration. Strict monitoring and supervision as well as pressure to complete duties on time also play a

major role in causing stress among mental health nurses. It was further concluded that stress affects mental health nurses negatively by reducing their ability to concentrate on work. Stress also negatively affects the physical health and psychological health of mental health nurses. Leading to a delay in the completion of work.

To cope with stress, mental health nurses take leave from work. Another coping strategy adopted by the mental health nurses is to sleep and rest during their free time. On duty, mental health nurses' resort to calling on colleagues to offer more hands in dealing with stressful situations.

6.3 Recommendations

Following on from the key findings and conclusions of the study, it is recommended r that the Ghana Health Service and the Ministry of Health should put in measures to employ more psychiatric nurses. This will go a long way to increase the nurse to patient ration at the psychiatric hospital. Also, the Ghana Health Service and the Ministry of Health should put in measures to expand the psychiatry health facilities to be able to reduce the issue of overcrowding.

To deal with the issue of aggressive and violent patients, more male psychiatric nurses should be trained and employed to help to manage such situations. Ghana Health Service and the Ministry of Health should put in measures to reduce the inadequate logistic situations at the psychiatric hospitals. Proper management should be done with regards to logistics and it should be ensured that logistics are always stocked in time to avoid the issue of shortages.

This research was limited in its scope as it focused on one particular hospital. Further research can broaden the scope and examine the causes of work place stress among mental health workers in other areas in the country. this will help to present a holistic view on the state of mental health workers in Ghana. The findings of this study indicate that staff assigned to VIP wards are more likely to be stressed out than other colleagues in other wards. It is recommended therefore, that in-depth follow up studies be carried to investigate actual reasons behind this finding.

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APPENDICES

APPENDIX A - Questionnaire

UNIVERSITY OF GHANA
UNIVERSITY OF GHANA BUSINESS SCHOOL
DEPARTMENT OF DEPARTMENT OF PUBLIC ADMINISTRATION AND
HEALTH SERVICES MANAGEMENT

Dear Sir/ Madam,

I am conducting a study on **Job Related Stress among Mental Health Nurses in Ghana**. I will be grateful if you could spend a little of your time to complete this questionnaire. There are no right or wrong answers. Any information provided is private and confidential. This study is only for academic purposes. Your participation in this study is entirely voluntary. Please feel free to answer the questions below.

INSTRUCTION: Please tick [√] your choice of answer to the statement(s) in the boxes below

Section A: Demographic Data

1.   Sex   Male [ ]   Female [ ]

2.   Age   20-30 years [ ]   31-40 years [ ]   41-50 years   [ ]

51-60 years [ ]

3.   Rank   SN [ ]   SSN [ ]   NO [ ]   SNO [ ]   PNO [ ]   DDNS [ ]

4.   Educational status   Diploma [ ]   Degree [ ]   Masters [ ]   PhD   [ ]

     Other (specify) _____

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5.   Ward/ Unit: _____

6.   Marital Status   Single [ ]   Married [ ]   Separated [ ]   Widowed [ ]

Divorced [ ]

   Other (specify) _____

7.   Number of years in nursing

 0-5 years [ ]   6-10 years [ ]   11-15 years [ ]   16-20 years [ ]   above 20 years [ ]

8.   Shift type   Morning [ ]   Afternoon [ ]   Evening [ ]

9.   Number of working hours in current position Less than 5hours [ ]   5-7 hours

[ ]   8 – 10 hours [ ]   10-12 hours   [ ]   over 12 hours [ ]

Section B: The Causes of Job-related Stress among Mental Health Nurses

10.   How stressful do you normally feel due to the nature of your work?

   A. Very stressful [   ]   B. Stressful [   ]   C. Neutral [   ]

   D. Not stressful   [   ]   E. Not at all stressful [   ]

The statements below are causes of job related stress. Please read the statements

carefully and tick [√] the answer from the corresponding box that best describes

your choice of response. The rating scale is as follows: 1 – Strongly disagree; 2 –

Disagree; 3 – Unsure; 4 – Agree; 5 – Strongly Agree.

No	Causes of Job Stress Your response to these items indicate whether the specific statement is a cause of your stress as a nurse	1	2	3	4	5

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11.	Unfriendly and hostile attitudes of colleagues toward me at workplace					
12.	Complicated job responsibilities					
13.	Unsatisfactory remarks and demands from superior					
14.	Unfavourable shift schedules					
15.	Inability to complete huge workloads					
16.	Strict monitoring and supervision					
17.	Pressure to complete duties on time					
18.	Risky and unhealthy work conditions					
19.	Relatively low payment of salary structure					
20.	Withdrawal of casual leave					
21.	Poor relationship with management and/ or superiors Role					
22.	High patients to nurses ratio					
23.	Limited career advancement opportunities					
24.	Sex/age discrimination					
25.	Disregard for effort at work by superiors					

Section C: The Effect of Job-related Stress among Mental Health Nurses

The statements below are effect of job related stress. Please read the statements carefully and tick [√] the answer from the corresponding box that best describes your choice of response. The rating scale is as follows: 1 – Never; 2 – Rarely; 3 – Sometimes; 4 – Often; 5 – Always.

C	Effects of Job Stress Your response to these items indicate whether the specific statement is a effect of your stress as a nurse	1	2	3	4	5
26.	Stress affects my health negatively.					
27.	Stress affects my normal social activities if not controlled					
28.	Dealing with job stress affects me financially since I pay money for medication or other means of destressing					
29.	I find it difficult concentrating on my work when am stressed up					
30.	Anytime am stressed up I perform poorly both clinically and administratively					

Section D: Coping with Job-related Stress among Mental Health Nurses

The statements below are coping strategies of job related stress. Please read the statements carefully and tick [√] the answer from the corresponding box that best

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describes your choice of response. The rating scale is as follows: 1 – Never; 2 – Rarely; 3 – Sometimes; 4 – Often; 5 – Always.

N<u>o</u>	**Coping with Job related stress** Your response to these items indicate how you cope with your job stress as a nurse					
31.	Whenever I realise that I need a leave, I take one					
32.	I am able to do what I want in my free time					
33.	I get regular physical check-ups					
34.	I exercise regularly (at least 20mins.,3 times a week)					
35.	I practice relaxation technique through social activities					
36.	Whenever I need help at work, I am able to approach people					
37.	I am able establish priorities for the use of my time					
38.	I am able to stick to my priorities					

APPENDIX B - IN-DEPTH INTERVIEW GUIDE

UNIVERSITY OF GHANA
SCHOOL OF BUSINESS
DEPARTMENT OF DEPARTMENT OF PUBLIC ADMINISTRATION AND
HEALTH SERVICES MANAGEMENT

Dear Sir/ Madam,

I am conducting a study on **Job Related Stress among Mental Health Nurses in Ghana**. I will be grateful if you could spend a little of your time to complete this questionnaire. There are no right or wrong answers. Any information provided is private and confidential. This study is only for academic purposes. Your participation in this study is entirely voluntary. Please feel free to answer the questions below.

1. Do you experience any form of stress in the course of your duty as the head of your department?

2. What daily activities or prolonged events stresses up?

3. Do your subordinates sometime complain of stress ups?

4. What job related activities do they associate their stress to?

5. How does the stress you experience due to your job as a head of department affects your functions or roles?

6. How does job related stress affect the work of your subordinates?

7. Does the effect of stress impacts negatively or positively where necessary on the mental health delivery of nurses? How?

8. How soon are you able to manage job related stress in order not to conflict with your roles or functions?

9.   What are the coping strategies adopted by nurses to overcome job related stress?

10.   Any further comments and suggestions on job related stress?