

**SCHOOL OF PUBLIC HEALTH
COLLEGE OF HEALTH SCIENCES
UNIVERSITY OF GHANA**

**STRESS AND COPING STRATEGIES AMONG SUPPORTING STAFF AT THE
CENTRAL ADMINISTRATION IN THE UNIVERSITY OF GHANA**



**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA,
LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
AWARD OF THE MASTER OF SCIENCE APPLIED HEALTH SOCIAL SCIENCE
DEGREE**

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DECLARATION

I hereby declare that apart from references to other people's work which have been duly acknowledged, this dissertation is as a result of my own independent work. I further declare that this dissertation have not been submitted for the award of any degree in this institution and other universities elsewhere.

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Yvonne A. Azumah

(Student)

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Date

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Mr Emmanuel Asampong

(Supervisor)



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Date

DEDICATION

I dedicate this work to God for His guidance, wisdom and protection on me throughout the period of this thesis. I also dedicate this study to my loved ones.



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I express my sincere gratitude to God Almighty for giving me the wisdom, strength, knowledge, understanding and guidance to conceptualize and work to bring this project into a reality.

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ABSTRACT

Background: The on-going structural changes in workplaces coupled with the fast pace of modern technology, population surge and competition among some public and private universities have brought about a lot of stress among staff in the various tertiary institution, especially in developing countries. Most studies have focused on stress among the teaching staff with little attention on the supporting staff. This study therefore investigated stress and coping strategies among supporting staff at the central administration in the University of Ghana.

Method: A cross-sectional design was employed using a quantitative method. A sample size of 214 supporting staff was used. A structured questionnaire was self-administered mostly to gather the data. This was measured on a five-point likert scale. Categorical data was expressed using frequency percentages and Chi-square was used to determine the association between variables. Continuous data was expressed as means standard deviation and t-test was done to compare differences in means.

Results: The results showed that, 173(80.8%) of the supporting staff perceived stress moderately. The first three sources of stress ranked highest included dealing with several pressing problems at once; finding that reward are not based on performance and having inadequate personnel or equipment to respond in an emergency. The supporting staff best coping strategies for stress were to increase effort to make things work, praying or finding faith in God or ones religion and to make a plan of action and follow it.

Conclusion: The findings of this study revealed that 80.8% of the supporting staff perceived stress moderately and this is associated with their educational level. They face a wide range of sources of stress and they find coping strategies to overcome their issue concerning stress though they use only 13 out of the 21-item coping strategies on the mean of 2.71.

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LIST OF ABBREVIATIONS

HRODD	Human Resource Organization Development Directorate
PRAAD	Public Records and Archives Administration Department
PSS	Perceived Stress Scale
UG	University of Ghana
UK	United Kingdom
WHO	World Health Organization
WSI	Work Stress Inventory

OPERATIONAL DEFINITIONS

Stress is any form of feeling in which the body respond to overwhelming experiences and demands that is taxing the body.

Coping strategies is the manner in which behavioural and psychological efforts is made to get use to or tolerate demand and conflicts that exceed an individual normal efforts.

Supporting staff refers to the non-teaching administrative staff in the University of Ghana.

Central administration refers to the point where all other activities take place to aid the core function of the university.

CHAPTER ONE

INTRODUCTION

1.0 Background of the study

Stress related matters have become a worldwide issue lately (Spector, 2002). In most workplaces, stress related to work is a major problem and is having an undesirable effect on employees (Van der Hek & Plomp, 1997). It is an increasing critical issue for workers, employers and government as a whole (Le Fevre, Matheny, & Kolt, 2003). Equally important is the job related stress experienced by university staff. According to studies done around the world, stress is on the ascendency and it is frightening (Gillespie, Walsh, Winefield, Dua, & Stough, 2001). In developed countries like UK, New Zealand and Australia, the global economic downturn has led to a notable fall in government sponsorship of public university. This has obviously led to some increased pressure among university staff since there is the need to work extra to rake in more resources (Fisher, 1994; Winefield, 2000). However, in developing countries like Ghana where resources to the various public universities are limited there is the need to investigate the impact of this limited resource on the staff of the various public universities.

Mechanic & Volkart (1961) noted social and interpersonal stress as a form of illness and concluded that, in the general population, people who are trying to adapt to such difficult life situations are the adult population who exhibit the major part of the illnesses occurring and majority of the university staff are within this adult population group. A study by Jins & Radhakrishnan (2013) reported most doctors are of the view that, when it comes to physical illness in relation to stress, 50% to 70% are unhealthy. In the same way, majority of the supporting staff in the University of Ghana work on vacations and are not exempted. One basic fact about stress is that, it is a mental disorder and fall under anxiety. In line with a study done by Quick & Quick (1984), it however showed that, gradual unrelenting stress may harm the body or mind with age, cause nervous system breakdowns or heart failure.

According to Selye (1956) the workplace contributes greatly to stressors usually known as job stressor and therefore there is also the likelihood the university environment also possesses some level of stress to its staff.

Selye (1956) also believed that perceived stressful works for instance are highly repetitive and boring and work that requires long periods of attention. Under work conditions, there are numerous ways individuals exhibit stress. Some of these are frequent medical visit, absenteeism, anxiety, alcoholism, high turnover rate, poor morale, accidents, low-quality work (Spector, 2002). Stress is a major problem undoubtedly and contributes negatively to life meanwhile not all stress is necessarily bad. Moreover, many workers are not knowledgeable about the fact that stress is very natural and an important part of life (O Donovan, Doody, & Lyons, 2013; Quinn, 2000). Others only look at stress on the negative aspect of life and think they understand it (Balcombe, Barnard, & Sandusky, 2004 ; O Donovan et al., 2013; Fernando, 2010).

The university is tasked with the duty of training, education and research, however, the development of knowledge and improvement is a role played by the supporting staff of the University. It is however well noted that, occupational stress levels are high among the supporting staff and if this is left unattended to and measures not put in place to cope with it, it will weaken the quality, creativity and production of employee's work, at the same time the health of the worker's and morale (Calabrese, Kling, & Gold, 1987; Everly & Lating, 2012; Nowack, 1989; Matteson & Ivancevich, 1987; Terry, Tonge, & Callan, 1995).

Stress is usually believed to be part of our everyday life and though inevitable, sometimes become bad when the body is not allowed time enough to recuperate (Jins & Radhakrishnan, 2013). There is a need to be concerned and promote the well-being and health of the people who work, in order to decrease harmful effects on the individuals and outcome of production (Carr, Kelley, Keaton, & Albrecht, 2011).

Individuals who are stressed learn to cope in various ways. Thus, stress can be managed and not simply done away with. However, the stress of daily life makes people to cope in a way from a perspective that includes the interconnections between home and work with a substantial range of diverse viewpoints across the world (Datta et al., 2007). In terms of coping strategies, Thoits (1995) points out that, when people are faced with major life events, they cope naturally using various tactics. It is expected that people with high self-esteem or perceived control would use more of active problem-focused coping responses and people with low self-esteem or perceived control should predict more passive or avoidant emotion-focused coping responses. It should however be noted that, coping strategies, supportive system and personality style are characteristics of individuals that can influence stress level and coping when it has to be determined (Cooper & Marshall, 1978).

In Ghana, it has been found out in recent time that, individual workers spend longer time working to enable them meet their needs in life and are therefore prone to experiencing stress which comes with some health challenges (Akussah, Dzandu, & Osei-Adu, 2012). According to Akussah et al., (2012) stress among workers contributes to high rate of turnover, absenteeism and work days lost which has cost implications for many organizations. Moreover, performance is also affected by stress, apart from the individual's health. In the case of the University of Ghana, the supporting staff works tirelessly while school is in session, during vacation, reopening of school, admission and registration to accomplish the core function of the university. This can go a long way to cause stress among the supporting staff if measures are not put in place.

1.1 Statement of the problem

Occupational stress has been acknowledged by the World Health Organization (WHO) to be a global epidemic (Avey, Luthans, & Jensen, 2009). Occupational stress is however seen as an

alarming issue and at the same time on the increase among university workers as indicated by the world report (Gillespie et al., 2001). It is a part of everyday life and everybody experiences it (Quinn, 2000). Also many workers are not knowledgeable about the fact that stress is very natural and an important part of life (O Donovan et al., 2013). However, for some people, they are unable to cope with their stresses while others also cope effectively (Iqbal & Kokash, 2011; Jins & Radhakrishnan, 2013). Moreover, too much of unresolved problems associated with stress affects us negatively and cause problems ranging from morbidity to mortality (Siegrist, 1998). Most studies on stress in Ghana have focused on banking sector, Port and harbour and other sectors of the economy. Even in the tertiary institutions the focus has always been on the lecturers with the supporting staff being ignored. However, stress is a problem that exists among workers in general and the supporting staff in the University of Ghana are not exempted. These supporting staff in the university have been employed into various units at the central administration and are faced with heavy workloads, routine and boring jobs. The issue of unfair payment systems coupled with low reward system tend to affect their physical and psychological abilities to work effectively to meet expected demands. Ultimately, productivity and turnover of the organisation is affected. The study therefore assesses the level of stress and also identifies the sources of stress experienced by the supporting staff in the University of Ghana and to find the coping strategies they employ in dealing with these stresses.

1.2 Justification of the study

In a developing countries like Ghana which is on its path to attain a middle income status emphasis on quality education cannot be overlooked. To achieve this, both teaching and supporting staff may need a sound and healthy being and environment to work. Thus the effort of people with little or no stress can make this possible. Stress is part of our daily lives

and it is inevitable. However both workers and organizations, still need to manage the stress and move on with their lives because stress is on the condition that the individual is able to cope with it. Stress is a state and not an illness and when not managed properly it is manifested in some of the following ways: frequent medical visits, absenteeism, persistent attitude of lethargy, low quality work, accidents, work stoppage to mention a few.

The supporting staff in the University of Ghana are to play a role in the economic growth of Ghana. However, indubitable stress exists among them. Many studies on stress and coping strategies have been done among lecturers in other universities in and out of Ghana with very little among the supporting staff of these universities. This research will therefore highlight stress among supporting staff in the University of Ghana and help build strategies to cope with these challenges. The opportunity to assess the level of perception and investigate the sources of stress among supporting staff and the coping strategies will help identify and reduce the problem of stress. Recommendations and findings from the study could be useful in awareness creation about stress and its sources among the supporting staff in the University of Ghana and also help improve their occupational health and stress management.

1.3 Research questions

- What is the level of perception of stress among the supporting staff at the central administration in the University of Ghana?
- What are the sources of stress among supporting staff at the central administration in the University of Ghana?
- How does the University of Ghana supporting staff at the central administration cope with stress?

1.4 Objectives of the study

1.4.1 General objective

To investigate stress and coping strategies among supporting staff at the central administration in the University of Ghana.

1.4.2 Specific objectives

- To assess the level of perception of stress among supporting staff at the central administration in the University of Ghana.
- To identify the sources of stress among supporting staff at the central administration in the University of Ghana.
- To find out the coping strategies among supporting staff at the central administration in the University of Ghana.

1.5 Hypotheses

- Hypothesis 1 there is no significant relationship between respondent's level of education and perceived stress level.
- Hypothesis 2 there is no significant difference in the work stress level of male and female supporting staff at the central administration.
- Hypothesis 3 there is no significant difference between the way males and females cope with stress at the central administration in the University of Ghana.

1.6 Conceptual frameworks: Transactional model of stress and coping.

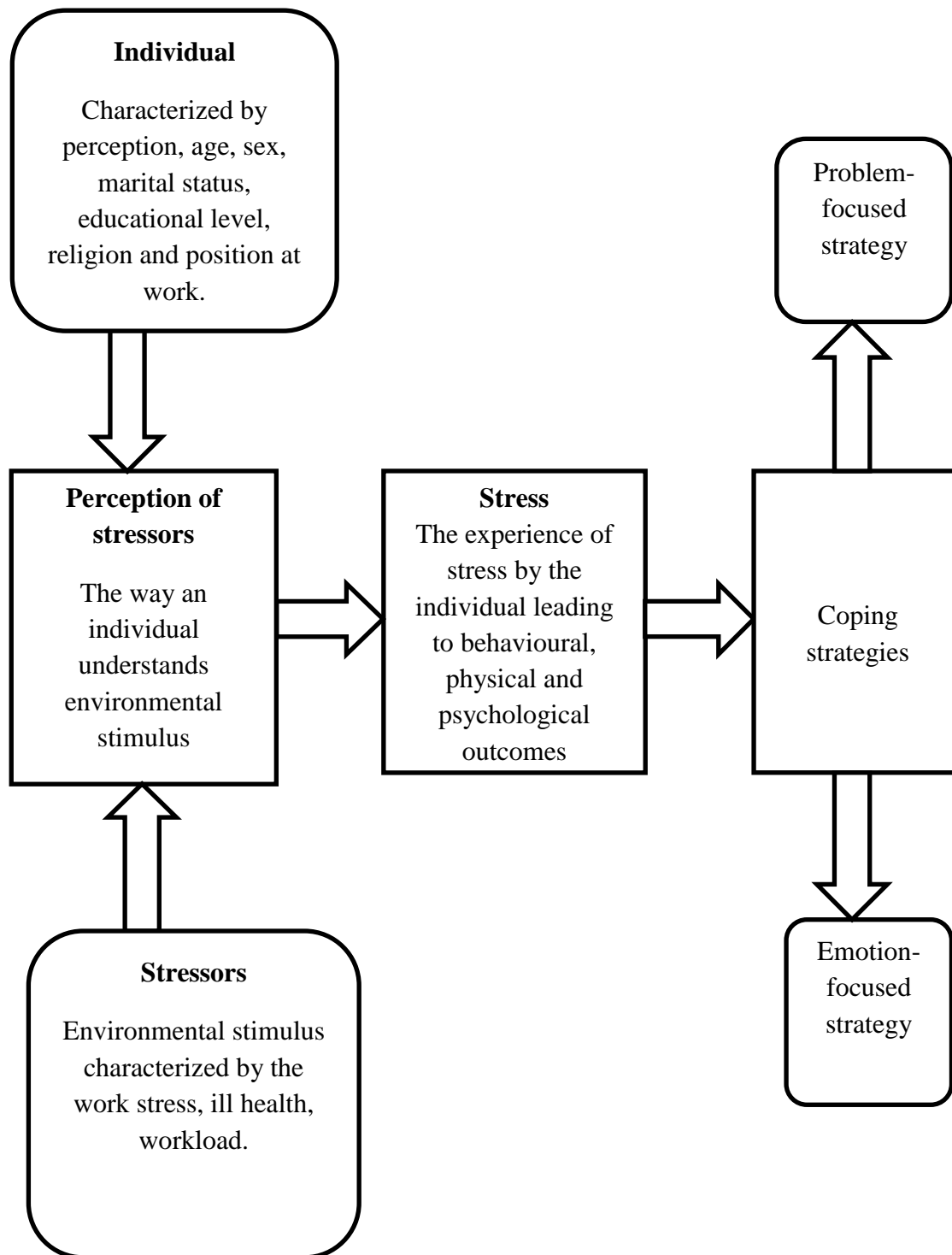


Figure 1: Conceptual frameworks

Conceptual frameworks by Le Fevre et al., (2003) was adapted to suit the purpose of this study. The modified aspect included the coping strategies (problem focused and emotion focused) and the original work is individual characteristics, the perception of stressors, stressors and the experience of stress itself.

The framework for assessing processes of coping with stressful events is the transactional model of stress and coping. The conceptual framework for this study was based on this model. The transactional model of stress and coping provides the framework to investigate the sources and the coping strategies among supporting staff at the central administration in the University of Ghana. Experiences of stressful events are interpreted as the transaction between a person and environment. The transactional model proposes that the impact of an external stressor or demand (for example work) is facilitated by the person's appraisal of the stressor and the cultural, psychological and social resources available to him or her (Lazarus & Cohen, 1977).

The general perception may be influenced by characteristics such as age, sex, marital status, educational level, position at work and the supporting staff's religion. The supporting staff's perception could also be influenced by the level of cues of people living around him or her. The transactional model of stress and coping construct of interest are primary appraisal, secondary appraisal, coping efforts which includes the problem management (problem-focused strategy) and emotional regulation (emotion-focused strategy) (Glanz, Rimer, & Viswanath, 2008). These have been elaborated upon below.

Primary appraisal: this evaluation is the perception of an event as threatening and can cause stress. If an event is perceived by a supporting staff as positive, benign, or extraneous, little negative threat is felt as stressor. Depending on a supporting staff's characteristics and the way he/she perceive the stressor present may lead to more positive thinking which can help one to minimize stress.

Secondary appraisal: helps in the evaluation of the controllability of the stressor and a supporting staff's coping resources. The perception of a supporting staff's ability to change the condition, manage one's emotional reaction, and/or cope excellently can lead to successful coping and adaptation.

Coping efforts is the actual strategies used to facilitate primary and secondary appraisals.

Problem management: this is part of the strategies directed at changing a stressful state such as unfair payment system. The characteristic again can influence the supporting staff to actively cope using problem solving and may seek information.

Emotional regulation: It is another strategy which is meant at changing the way a supporting staff thinks or feels about a stressful situation. Individual workers in the University of Ghana may vent emotions, seek social and or deny or avoid people or habits in order to deal with stressful situations.

It is therefore expected that, the supporting staff's socio-demographic factors on stress and coping will influence their primary and secondary appraisal and problem focus and emotion focus respectively.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

A literature search of studies have been used in this section to examine existing publications and reviewed literature worldwide and locally on stress and coping strategies among supporting staff in the University. The literature was derived both from early and more current works in the field of this study. The scope of the review includes the history and theories on stress, perception of stress, sources of stress, effects of stress and coping strategies of stress.

2.1 History and theories on stress.

Stress has been in existence since creation and as pointed out by Boss (1987) in the Talmud and the Bible, families have been concerned with events of change, trouble, disaster, and ambiguity since the beginning. In England, early researchers wrote a lot about problem concerning families and usually labelled them as deviant, antisocial and lower class though this contrasted with the early Americans who concentrated mostly on the process of family maladjustment rather than stereotyping (Hill, 1958). In the late 1970s and 1980s there was a change in stress research from family weaknesses to family strengths and coping strategies (Burr, 1995). This variation also saw a shift in the unit of analysis from individuals to families and then to communities.

The various stress theories have come from psycho-biologist, who looked at the connection between emotional stress and physiology (Cannon, 1929), sociologist like Lindemann (1944), and psychiatrists like Holmes & Rahe (1967) who conceived of life events as stressor which require changes in individual's on-going life patters and the Social Readjustment Rating Scales (SRRS), anthropologist like Hoff (1989) who developed the crisis paradigm to explain

what happens to an individual's experience in managing individual crises and the family stress theory. The development of the various stress theory have mainly occurred in four era thus the first era (1920 to late 1940s), second era (late 1940s to late 1970s), third era (late 1970s to mid-1980s and fourth era (Mid 1980s to present). These eras have all led to the development of models that focused on family meanings, family processes, family strengths and family context models that considered culture, making them more postmodern approach (Patterson & Garwick, 1994).

2.2 Overview and definition of stress

The word used to describe feelings of tensions or exhaustion usually linked with work overload or excessively demanding work is regularly termed as stress (Iqbal & Kokash, 2011). Stress is very natural and an important part of our lives, but many people fail to realize this. Moreover, stress can serve to enhance a person's motivation, fulfilment, performance, and personal attainment in the workplace (Matthewman, Rose, & Hetherington, 2009).

To define the term stress is a difficult thing because it has diverse implication for each person (O Donovan et al., 2013; Schuler, 1980). Some of the definitions given below revealed how an individual views stress from another person. Selye (1979) defines stress as any internal drive or an external event which threatens to trouble the organismic balance. Holmes & Rahe (1967) also defined stress as any environmental, social, or internal demand which requires the individual to readjust his/her usual behaviour patterns. Stress is defined as "any condition or characteristic of the work environment which threatens the individual's psychological and physiological homeostasis" (Lim & Teo, 1996). According to Stein & Cutler (2002) stress is defined as a complete reaction to one's environmental hassles and pressure and conceived that, stress is an inevitable part of life that each person has to deal with. Furnham (2012) considered stress to be any pressure which exceeds a person's capacity to keep physiological,

psychological and emotional stability. According to Robbins (2004), stress is a dynamic condition in which an individual is confronted with opportunity, constraint or demand related to what he desires and for which the outcome is perceived as both uncertain and important. From this definition one can say that stress is not necessarily bad, it also has a positive value when it offers potential gain.

As cited by Le Fevre et al., (2003) Selye distinguished between eustress and distress but, were originally subsumed within the definition of stress. Eustress is a term that was first defined and used by Selye. Eustress is good for the individual and it is considered as normal and necessary. Eustress assists the individual to be alert, remain motivated to face challenges and drives the individual to solve problems. In line with this, the Yerkes Dodson Law (Benson & Allen, 1980; Certo, 2000) says that, the rationale behind the usual management exercise undertaken to induce anxiety, or fear in the environment will lead to greater performance among workers than if stress is not existing. Eustress is what we need, but too much of this stress and the inability to cope with it for extended period of time turns into distress. Distress, also termed as bad stress takes place when the individual's body over-react to situations. It leads to what is referred to as the fight or flight reaction. Also this is the kind of stress that leads to poor decision making. Many individuals unfortunately react to daily situation as if they were life or death issues. It is however normal for our body to react to both categories of stress.

According to Carr et al.,(2011), stress comes in two main forms. One of them is said to be brief and usually the outcome of unanticipated stressors, this is referred to as acute stress. More often than not the situation is not totally clear and this cause the body to react but, as soon as the issue is resolved the body instantly returns to normal before the person understands what had happened. The other type is chronic stress, which is a lingering psychological distress from an unsolved issue or circumstance. People who experience this

type of stress often need care because the outcome of this stress has a negative effect on the body.

Undoubtedly, stress is a major problem. The quality of life of workers is determined by the occupational stress that stands as a real threat (Danna & Griffin, 1999 ; Dyck, 2001). According to Braaten (2000) job stress is defined 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 workers. It can be deduced from this that, most of the stressful events are linked to the workplace.

2.3 Perception of stress

An individual's perception of stressful situations and also one's personal coping skills feature into the reaction from the level of stress. By nature, an individual's perception of stress is greatly different from another's. Along similar lines (Cox, Griffiths, & Rial-Gonzalez, 2000; Copper & Marshall, 1978 ; Sofola & Jeboda, 2006) in their research established the fact that, the response to the level of stress given by individuals is distinct depending on the kind of stressor one is exposed to and varying personal and environmental factors.

Augustine et al., (2011) carried out a research entitled perceived stress, life events and coping among higher secondary students of Hyderabad, India: A pilot study. Perceived Stress Scale (PSS) was used to measure stress levels in these higher secondary students. The results revealed that mean score on PSS among the students was 25.9 ± 5.88 , the scores was in the range of 4-43. The perceived stress scores were high among students of Government school (27.7 ± 5.85) and that in Private schools (25.1 ± 6.63) though the differences in mean was not statistically significant at $p < 0.05$. This study was done in an educational setting with the PSS tool for measurement, however the study population were student therefore the outcome may not be as that of the supporting staff in the University of Ghana.

In a study done by Humboldt, Leal, Laneiro, & Tavares (2013) on examining occupational stress, sources of stress and stress management strategies through the eyes of management consultants: a multiple correspondence analysis for latent constructs. These authors mentioned that (31.4%) of intellectual disturber was as a result of self-perception of occupational stress and this was stated as the utmost. According to the authors also, the differences between the two gender groups were not major. The self-perception of occupational stress was elucidated by 'organisation-oriented' and 'person-oriented'.

A research entitled Psychological morbidity, sources of stress and coping strategies among undergraduate medical students of Nepal was conducted using a cross-sectional design. General Health Questionnaire tool was employed in order to collect data and the results revealed general that, the response was 75.8% rate. The psychological morbidity prevalence was 20.9% and it was greater among students of basic sciences, whose parents were medical doctors as well as Indian nationality (Sreeramareddy et al., 2007).

In another study with the title perceived level and sources of stress in baccalaureate nursing students, Beck & Srivastava (1991) used General Health Questionnaires (GHQ) and Stress Inventory to collect their data. Using 94 sampled baccalaureate nursing students with the descriptive of correlational design, the authors concluded that, the students were at risk of having psychiatry or physical illness and experienced high stress levels. They also split the group into Registered Nursing student's status and generic status. This was used for analysis and it came up that, the generic students reported greater levels of stress as compare to the other group. As this study was conducted among nursing student with a different tool for measurement and a less sample size number, the results as stated would not be the same as that of the supporting staff in the university.

A research with the title occupational stress in the university staff was carried out using a sample size of 2040 employees of the University of Adelaide in Australia. The results

revealed that, psychological stress level is high and job satisfaction was low among the academic staff who both conducted research and are engaged in teaching as well (Winefield & Jarrett, 2001).

A research conducted on the Academic distress, perceived stress and coping strategies among dental students in Saudi Arabia employed a sample size of 556 undergraduate dental students from five different class years. The results showed that, the mean 22.82 (± 3.99) was the PPS score for the study population and had the range of 8–33. In all the study years, the students in the second-year had the lowest score. The PSS score for the fourth year students was the highest and this was followed by the students in the first-year. There was a gender difference where the female students perceived stress more significantly than the male students (Al-Sowygh, 2013).

Sofola & Jeboda (2006) conducted a research entitled Perceived sources of stress in Nigeria dental students. Out of 137 total number of student, 105(76.6%) of the year 3-6 responded to the modified Dental Environment Stress (DES) questionnaire. This was measured on a four-point likert scale in a cross-sectional study. The results showed that, the highest level of stress was recorded among the year 5 students and 21 (70%) of the students had above the cut-off point of >42 for non-clinical stressors.

A study conducted among fresh undergraduate students at the University of Cape Coast by Amponsah & Owolabi (2011) with the title Perceived Stress Levels of Fresh University Students in Ghana: A Case Study. A total of 398 respondents answered the Perceived Stress Scale (PSS) questionnaire. The findings showed that, the Undergraduate students (70%) had moderate level of perceived stress whilst 3.5% demonstrated high level of stress.

2.4 Sources of stress

The sources of stress are several and it also depends on the position one holds at work. In the face of stressors some individuals have great tolerance for stress and do well while others have little level of tolerance and become paralyzed when faced with stressors (Jins & Radhakrishnan, 2013; Iqbal & Kokash, 2011).

A research carried out on stress among academic and general staff in universities: staff perceptions of the causes, consequences and moderators of stress in the USA, New Zealand, UK and Australia have come up with numerous issues. These are lack of promotion opportunities, time constraint, work overload, inadequate recognition, changing job role, inadequate salary, inadequate management or participation in management (Gillespie et al., 2001).

A report in a study indicated that 'high workload' (15.1%) was recognised as the most widespread perceived source of occupational stress. The title of this study was examining occupational stress, sources of stress and stress management strategies through the eyes of management consultants: A multiple correspondence analysis for latent constructs. This study was conducted among management consultants with the sample size of 39. Moreover, the authors of this study further analysed the data and found out that differences between the two gender groups were not major among the management consultants (Humboldt et al., 2013).

A report revealed that regardless of mother's marital status, employment, their stress level was high. The authors of this report explained further that, the married and unmarried women with children have a greater risk of personal stress. Furthermore, married and partnered mothers, employed or unemployed have been reported to have healthier mental state and their personal stress is significantly lower than single mothers with employment or unemployment. It is therefore evident in this study, the single mothers reported greater personal stress than the partnered mothers (Maclean, Glynn, & Ansara, 2004). Similarly, female information

technology (IT) personnel reported significantly higher scores on three items classified to be sources of stress related to work which showed in a study entitled gender differences in occupational stress and coping strategies among IT personnel and was conducted (Lim & Teo 1996).

In a study conducted in some universities, the result showed the 'career expectations' was specified as a best-fit explanation for source of occupational stress. Insufficient funding and resources, work overload, poor management practice, job insecurity and insufficient recognition and reward have all been identified as five major sources of stress (Gillespie et al., 2001).

Also, a study carried out in Occupational Stress and Organizational Commitment in Nurse Administrators used the Maslach Burnout Inventory, the Organizational Commitment Questionnaire, and personal data sheet to collect data from a sample size of 78 people drawn from the state's nurse executive organization and the state hospital. The study revealed that the half of the respondents experienced low levels of burnout whereas one third experienced high levels of burnout. Majority of the nurse's executives have high scores for commitment which was correlated inversely with burnout scale scores, with the amount and with experience from non-nursing management. Some had few opportunities to meet with colleges which led them to get a higher score on emotional exhaustion although personal accomplishment scale was lower. The researchers realized that their findings were consistent with other literatures which revealed the administrative role may require a special method to avoid organizational stress (Lee & Henderson, 1996).

A research on occupational stress in naval personnel was conducted using cross-sectional design with a sample size of 413 naval personnel who served afloat and ashore were measured for life satisfaction and occupational stress. The result showed that, among the

junior sailors, occupational stress was significantly greater (36.7%) when compared to officers and senior sailors and officers (20%). Higher occupational stress was reported by those serving in ashore establishment (34.5%) and when compared to those serving on board ships it was seen to be (24.8%). The authors also found out that, among the personnel serving on submarine board, only (7.7%) reported high occupational stress. It was however statistically significant and differences were noted (Pawar & Rathod, 2007).

Another research entitled Psychological morbidity, sources of stress and coping strategies among undergraduate medical students of Nepal was conducted using a cross-sectional method. General Health Questionnaire was used for assessment and the results revealed that, the main and most serious sources of stress were high expectations from parents, examinations, lack of time, staying in hostel, vastness of syllabus and facilities of entertainment (Sreeramareddy et al., 2007).

In Ghana, (Akussah et al., 2012) researched on stress and coping mechanisms among works of the Public Records and Archives Administration Department (PRAAD) Headquarters. It was revealed that, out of 21 stress factors, the whole staff scored above the median of 3, on 20. Lack of performance based reward (promotion or recognition) scored 3.43, revealing the most stressful factor. According to the study this was evident in most Ghanaian public service organizations. This study used a case study design with a sample size of fifty nine (59) representing the whole population and the Work Stress Inventory (WSI) questionnaire was used for data collection.

2.5 Effect of stress

There are various effect of stress as indicated by Blackwell (1998) who stated that stress shows itself in a number of ways. These effect could be grouped under three general

categories; financial cost on job and employees, physiological, psychological and behavioural effect on employers.

The present physical and psychological impairment on human life is an abnormality from the effect of stress (Fernando, 2010). Advice that has been applied in the workplace interestingly is to manage stress to an ideal level, rather than diminishing the level of stress (Le Fevre et al., 2003). The effects of stress affect both the organization and the individual in diverse means. To this effect, Leka, Griffiths, & Cox (2003) mention the fact that lower productivity, jobs turnover, increased absenteeism are few effects of stress on the person and organisation. Garrison & Bly (1977) mentioned that stress is very much known to corporations to cause a lot of problems. Also the authors indicated that, the workforce spends most of their time at the workplace which makes the workplace very important. Therefore stress needs to be minimized and managed well to achieve an appreciable level of performance at the workplace.

Siegrist (1998) stated that the unmanaged stress cost nobody less than a bigger risk of morbidity and mortality for workers at a personal level. Since the risk have become greater than before, organizations have hastened their steps to avoid being legally held accountable for damages caused to stressed employees due to the assumption of the fact that, importance have been attached to stress at the workplace of late as observed by (Midgley, 1997; Rees, 1997).

The financial burden of Job stress on employers can take a form of health care costs, periods of disability, absenteeism, job turnover and poor productivity and it is believed that in the United State of America (USA) about 40% of job turnover is due to stress (Hoel, Sparks, & Cooper, 2001). The National Institute for Occupational Safety and Health (NIOSH) also believes that Job stress is the source of more health complaints than financial or family problems.

Ivancevich, Matteson, Freedman, & Phillips, 1990 ; Kohler & Kamp, (1992) agreed on a study they carried out in the United States on occupational stress in 215 organizations and it came up that, acute and chronic problems relating to health, employee burnout and poor work performance were all found out to be related to occupational stress.

It cost UK company averagely about (10,000) employees for stress related diseases, 73, 000 lost of working days and 42 deaths of employees yearly and over £2.5 million lost of value to productivity each year as detected by (Travers & Cooper, 1993) after a study. According to Mirvis & Lawler (1977) study, \$ 50 to \$ 75 billion per year is the estimated cost of stress to organizations on employees in the form of medical expenditures, absenteeism and cost of productivity.

It is estimated that 300 billion dollars is lost in the United States economy each year to workplace stress that is preventable (Lu, Shiau, & Cooper, 1997). According to the study by this same body of knowledge, 50% of all absenteeism and 40% of all turnovers were caused by occupational stress and 5% was estimated as the total labour force which accounted for reduced productivity in the country that suffered from preventable stress.

A study done among undergraduates in a British university report that students of about 2.4% developed psychiatry disorder which led to 1% of them being absent from the course and due to psychiatry disturbance required admission to the hospital (Firth, 1986). The university setting is the same for the undergraduate and the supporting staff however, their job demands are not similar therefore would yield different results.

Concerning long working hours, (Dembe, Erickson, Delbos, & Banks 2005) compared jobs with and without overtime schedules and the result was that 61% of jobs with overtime schedules was associated with a higher injury hazard rates than jobs without overtime.

2.6 Coping strategies of stress

Coping as a process is a person's constant efforts in thought and deed to manage exact demands appraised as challenging or overpowering (Lazarus, 1993). In their study, Lazarus & Folkman (1984) mentioned that coping strategies involved the cognitive or behavioural endeavours to achieve specific situational demands which are appraised as challenging or beyond one's ability to adapt. There are two types of coping strategies and this is affected by one's stress reaction. The effort of coping may be directed at themselves and this is referred to as problem-focused strategies on one hand and on the other hand, the emotional reactions which frequently escort those demands is known as emotion-focused strategies (Lazarus, 1993; Thoits, 1995).

Billings & Moos (1984) in a research recommended that, one's coping strategies are compensatory factors that help to sustain their health and also reported that problem solving and effective regulation as coping responses were associated with fewer and simple dysfunction, whereas coping responses directed towards emotional-discharge were connected to more dysfunction and were used more often by women.

In reaction to stress problems, some employees have taken stress management training seriously and efforts has been made to separate occupation perceived to be causing the stress (Salazar & Beaton, 2000). The increasing stress among the supporting staff in the university should be acknowledged and attempts should be made to alleviate it.

According to research done by Humboldt et al., (2013), which examined occupational stress, sources of stress and stress management strategies through the eyes of management consultants: a multiple correspondence analysis for latent constructs. Besides, they used 39 respondents and found out that 'coaching' (19.0%) was the highest for stress management strategies and the differences between the two gender groups were not major. Stress management strategies was best clarified in a three-dimensional model as 'individual support

strategies', 'group dynamics strategies' and 'organizational culture strategies'. Similarly, a study was conducted in gender differences in posttraumatic stress disorder after a motor vehicle accident with a sample size of 122. It was revealed that, in meeting the standard for facing of diagnosis of posttraumatic stress disorder, male and female did not differ. However females were at greater risk of facing specific feelings in almost the same situations than men. Moreover the study stated that, females managed stress better than men (Fullerton et al., 2001).

Loosemore & Waters (2004) mentioned in a research they conducted on gender differences in occupational stress among professionals in the construction industry of which the results showed that, stress level for men is slightly greater than that of the women. In their studies (Gächter, Savage, & Torgler, 2011; Wolf, Schommer, Hellhammer, McEwen, & Kirschbaum, 2001) also realized that, unlike males, females are able to cope with stress well. This is consistent with study conducted by Matud (2004) which examined gender differences in stress and coping using a sample size of 2816 people and the results of this study proposed that women suffer more stress than men and their coping style is more emotion-focused than that of men.

A study entitled the relationship between stress, strain and social capital by Gächter et al., (2011) in a survey of police officers showed there is a reduction in the level of strain, in the psychological, physical burnout and health area which is correlated significantly with an increase in social capital. Since this study was peculiar to police officers, it may not be the same for the supporting staff in the university because of the differences in settings the nature and outcome of their job description.

A research entitled Psychological morbidity, sources of stress and coping strategies among undergraduate medical students of Nepal was conducted using a cross-sectional method. Brief

COPE inventory was adopted and used to assess coping strategies. It came up that, the overall students used active coping strategies such as positive reframing, planning, self-distraction, acceptance, active coping and emotional support. The least, alcohol/drugs coping strategy was also used by some students (Sreeramareddy et al., 2007).

Princeton & Gaspar (1991) carried out a research with the title First-line nurse administrators in academe: how are they prepared, what would they do? Would they stay in their Jobs? The authors came up with the results that various strategies for time-management were used by the respondents to cope, but one half will not remain in the pathway of administration career. This could be due to the fact that, they already have a background in nursing as a profession and would easily switch back to it to enable them reduce the stress that comes with a position in first-line administration.

Another research with the title expanding the Literature on Job Satisfaction in Corrections: A National Study of Jail Employees. The Results showed that it is the organizational variables that mainly account for the job satisfaction of jail line worker, but not the personal variables such as ethnicity, gender, race and age. These organisational variables greatly contribute to employee's overall work environment and the others comprise of a supporting work climate, empowerment/autonomy, and compensation/benefits (Stinchcomb & Leip, 2013). As this research is peculiar to jail workers, it would not be the same for supporting staff in the university because the work environment is different and the job demand varies in each organization.

Gholamzadeh, Sharif, & Rad (2011) conducted a research entitled Sources of occupational stress and coping strategies among nurses who work in Admission and Emergency Departments of Hospitals related to Shiraz University of Medical Sciences. In this research, the results showed that an emotion-focused strategy such as self-controlling and positive

reappraisal was mostly used by the majority of the nurses while generally problem-focused approach such as accepting the responsibility was less commonly used.

A pilot study done in teacher stress and coping strategies used to reduce stress was carried out by Austin, Shah, & Muncer (2005) with constructed individual standardized questionnaire. The results implicitly showed that ‘uncontrolled aggression’ ‘escape avoidance’, and ‘accepting responsibility’ were the negative coping strategies used and only one effective coping strategy was specified; that is ‘exercise’.

A study entitled *Participative Management and Correctional Personnel: A Study of the Perceived Atmosphere for Participation in Correctional Decision Making and its Impact on Employee Stress and Thoughts About Quitting* which was conducted by Slate & Vogel (1997). The findings showed that stress related to work and physical stress decreased when employees participated in decision making at the workplace. The practice or the introduction of this research of the latter authors in the University of Ghana can assist the supporting staff to reduce their stress level in those areas that they may see as problematic.

From the foregoing discussion in this section, the review of literature showed relevant studies that have been carried out on Stress and Coping strategies among workers around the globe. Moreover, this research adds up to already existing literature especially on the supporting staff in the University of Ghana in the Accra Metropolis. Finally, given that very little has been done in Ghana on Stress and Coping Strategies among Supporting Staff at the Central Administration in the University of Ghana, this research contributes to stress and coping literature in Ghana among the supporting staff at the central administration in the University of Ghana.

CHAPTER THREE

METHODS

3.0 INTRODUCTION

This chapter presents the design of the study, the study population, the sampling method, sample size, data collection instruments and procedure and the analysis of the data collected. It also includes ethical consideration and pretesting of the study instruments that were used in the study.

3.1 Study design

This was a quantitative study that employed a cross-sectional design. Portion of the supporting staff at the central administration in the University of Ghana were randomly selected as participants in the study. This design was used because the data about the variables was obtained once in a given time. A standardized questionnaire was used to collect the data.

3.2 Study area

The study was conducted at the central administration in the University of Ghana main campus, Legon. The main campus is located at the north eastern part of Accra, the capital town of Ghana which is about 13 kilometres and lies at an altitude of between 90 and 10 metres above sea level. The university extend from the central administration to the main gate on Accra-Adenta road on the Legon Hill. Behind is the Commonwealth hall which is an open-air theatre with a Great style auditorium built into the slope of Legon Hill. The central administration which is the summit of the Legon Hill is the convocation of groups of building which houses the university's administration offices, the Great Hall, with a seating capacity of 1,500 and a Tower donated by the Government of Ghana in 1959 to commemorate Ghana's independence.

On the southern side of the campus are residential accommodations for staff, the University Guest House, Basic School, the Noguchi Memorial Institute for Medical Research, School of Public Health, the Sports Directorate and Stadium, students Hostels, a night market and a Supermarket.

Along the Legon Hill are the halls of residence, laboratories and teaching departments' lecture theatres and mid-way an open space. David Mowbray Balme, the first Principal of the University College named the Balme Library which overlooks an ornamental square pool. Across from the university square ornamental pool are sports fields, a central cafeteria and halls of residence.

Across the Accra-Madina road from the main university gate is a police station, a University Hospital and Housing for junior staff of the university. As the name suggest, it is the university of the nation and due to its excellent reputation, it attracts foreign students especially students from the United States.

The University of Ghana now have four main colleges created out of the former Faculties. This was recently adopted to decentralize the system of administration in order to make decision making a lot shorter and a lot more structured. The new Colleges created under the collegiate system of administration are: the College of Health Sciences, the College of Humanities, the College of Education and the College of Basic and Applied Sciences. The University of Ghana however, is the oldest and largest of the six public universities in Ghana.

3.3 Study variables the study variables of interest include:

Dependent variables: Perceived Stress Scale was analysed to establish the change that occurred in relation to the educational level of staff. Stress Work Inventory (SWI) depended on the individual stress at work, workload and his/her perception leading to stress. The outcome of stress will determine whether an individual coped with problem or emotion focused strategies.

Independent variable: The socio demographic variables of the respondent namely the age, sex, marital status, educational status and position at work were associated with the dependent variables.

3.4 Study population

The total population for the area under study was 461 making up the number of the supporting staff at the various units that have been taken for the study at the central administration. This was obtained from the Human Resource Organization Development Directorate (HRODD), (2014). These units are: the Academic Affairs Directorate (72), the Sports Directorate (24), (HRODD) (46), the Physical Development Municipal Services Directorate (PDMSD) (49), the Finance Directorate (110), the Public Affairs Directorate (22), the Office of the Registrar (14), the Office of the Vice Chancellor (9), Office of the Pro-Vice Chancellor Academic Student Affairs (ASA) (5), the Internal Audit Directorate (25), the Office of the Pro-Vice Chancellor-Office of Research Innovation and Development (ORID) (21) and the University of Ghana Computing System (UGCS) (64). The University of Ghana supporting staff at the central administration in these units was used because they constitute a large number of workers and they contribute to day-to-day core function of the university apart from the academic staff. During the period of this study, the supporting staff

present at work were included in the study. Those who were absent from work and those who were on leave at the time of the research were not included in the study.

3.5 Sampling

3.5.1 Sample size determination

The proportion of the population to be studied is termed as the sample size. This was calculated by using the target population as stated above for the supporting staff at the central administration and a formula propounded by Krejcie & Morgan (1970). These authors came up with the table for determining sample size with a known population. The supporting staff at the central administration in the University of Ghana population was 461. The sample size was calculated using the formula stated below:

$$s = X^2 NP (1- P) \div d^2 (N -1) + X^2 P (1- P).$$

s = required sample size.

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).

N = the population size (461).

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (.05).

$$s = 3.841 * 461 * 0.5 (1-0.5) \div 0.05 * 0.05 (461-1) + 3.841 * 0.5 (1-0.5)$$

Therefore the sample size obtained was 210. The sample size was adjusted upwards as a result of non-responses and recording errors. To account for these contingencies a 5% upward adjustment was made resulting in a size of 221. However 214 completely answered the questionnaires.

3.5.2 Sampling procedure

The procedure used in selecting the respondent was simple random sampling. In a simple random sampling everyone in the population has an equal chance of being selected. The number of units considered for the study was 12 as noted above. There are 3 categories of staff at the central administration and these are senior members, senior staff and junior staff. A sample size was allocated to get a proportional number for respondents from each category from the considered for the research.

Proportional allocation is a way of dividing a sample among the strata in a stratified sample survey. Further, a stratified sample selects separate samples from subgroups of the population, which are called “strata” and can often increase the accuracy of survey results (Larsen, 2008). Out of the 214 sample size as calculated above, 43 was allocated to the senior members, 107 was allocated to the senior staff and 64 allocated to the junior staff. After the respondents were informed on the research, 43 senior members were chosen by writing 43 ‘Yes’ and 46 ‘No’ on piece of papers mixed in a bowl. Then the researcher allows a senior member from any unit mentioned above to choose from the bowl. When this senior member chooses ‘Yes’ he or she is allowed to participate in the research. In the same way, this procedure was applied in selecting the 107 and 64 respondents from the senior and junior staff respectively. Find below a table for allocation of sample.

Table 1: Allocation of sample

Groups	Actual staff number	Proportion	Sample
Senior member	89	0.2	43
Senior staff	223	0.5	107
Junior staff	149	0.3	64
Total	461	1.0	214

3.6 Data collection instrument

The research instrument used in the collection of the data was survey questionnaire and it had four sections. The questionnaire on Work Stress Inventory was an adopted standardized questionnaire from Akussah et al., (2012). It was close-ended generally except for a few open-ended questions. The closed-ended questions were measured using a five point likert scale. The questionnaire covered appropriate information which made up the various sections. These included the socio demographic profile which consisted basically of the independent variables which were age, sex, marital status, educational level, position at work and religion of the respondents. Perceived Stress Scale (PSS) consisted of 10 items of stress instrument for assessment and it is precisely used to measure personal stress. it was developed by Cohen, Kamarck, & Mermelstein (1983). It helps to understand how various situations affect our feeling and one's perceived stress. The individual scores on the PSS can range from 0 to 40 with high scores indicating high perceived stress level.

Stress Work Inventory (SWI) is used to measure the intensity and frequency of stress. It is rated on a 5-point scale. WSI has 40 items, 21 items of stress was adopted because it had the relevant information needed to elicit the stress inducing factors for this study. The items cover job risk and organizational stress (Barone, Caddy, Katell, Roselione, & Hamilton, 1988).

Coping strategies is a way of coping with a checklist of 68 items that describes a broad range of cognitive and behavioural mechanisms for coping. These items on the coping checklist were classified into 2 categories namely: problem-focused (21 items) which includes items that describe efforts for changing or dealing with the cause of the problem. The second coping item is the emotion-focused (41 items) is the efforts directed at handling or decreasing the emotional distress. 21 coping strategy items were adapted from Folkman & Lazarus (1980) and measured on a five-point likert scale.

3.7 Data collection technique

The researcher collected data using both primary and secondary information for the research. The primary data was collected through the use of survey questionnaires and interviews. The purpose of the study was explained to the participants. The closed-ended and open-ended piloted questionnaires were largely self-administered and a few were administered to respondent by the researcher using face-to-face technique at a convenient place for the respondents. Privacy and confidentiality was provided to respondents. Secondary data was obtained through formal and informal interaction with the Human Resource Organization Development Directorate and other supporting staff who had information on issues of the central administration. Some of these secondary data included the total number of the supporting staff, the number of staff in each unit and also the number of people in each category of staff.

3.8 Quality control

To ensure the quality and validity of the data and findings of the research, a research assistant with knowledge on the research was recruited and trained for data collection. Data collection was done during the period of one month. Data collected was checked to ensure the questionnaires were properly answered and the research assistance was supervised to ensure the information that was taken was correct. When omissions and errors were detected, it was quickly resolved. Data was checked before it was entered into the computer. The researcher verified how data was coded and entered into the computer.

3.9 Data analysis

This study used statistical software, Statistical Package for the Social Science (*SPSS*) (*version 20*) to analyse the data. The responses of the administered questionnaires were closely scrutinized. Categorical data was expressed using frequencies, percentages and Chi-square

was used to determine the association between the independent and the dependent variables. Continuous data was expressed as means standard deviation and t-test was used to compare differences in means. The open-ended questions were grouped into categories and then further coded as closed ended questions and entered into the software (*SPSS*) for analysis. The respondents were asked to rate the various questionnaires on a five-point Likert scale and were measured in the following ways:

Perceived Stress Scale measurement

Supporting staff were asked to rate their perception of stress level. The responses were rated on a 5-point scale where 0 represents (never), 1 (almost never), 2 (Sometimes), 3 (fairly often) and 4 represents (very often). To determine the score of Perceived Stress Scale, the questions number 4,5,7 and 8 scores are reverse that is 0=4, 1=3, 2=2, 3=1 and 4=0. Then an individual's score is measured by adding his or her responses together. The higher one's score the more one perceived stress and the lower your score the less perceived stressful one would be (Cohen et al., 1983).

Work Stress Inventory measurement

The respondents were asked to rate the most stressing item and the responses ranged from 'very little' (1) 'a little (2), 'moderate amount'(3), 'much'(4) and to 'very much' (5). The researcher measured one's score on stress by summing up all the responses. The greater one's score the higher one's stress level and the smaller one's score, the lower one's stress level. The items with higher scores was then rated as the sources of stress (Barone et al., 1988).

Coping Strategy measurement

To measure the coping strategies, a twenty one (21) item questionnaires was used and respondents were asked to rate items on a scale that ranged from 'almost never' (1), 'rarely'(2), 'sometimes'(3), 'quite often'(4) and 'most of the time' (5). According to

(Folkman & Lazarus, 1980), the component of each response was determined after the addition of all response.

3.10 Limitation of the Study

The limitation of the study was the inability to generalize the study to other part of the university. Also time constraints and limited financial resources could not be controlled.

3.11 Ethical consideration

Proposal has been sent to the Ethical Review Committee (ERC) of the Ghana Health Service, Development Division in Accra. Permission was granted by the various unit of the central administration at the University of Ghana to conduct the research. The study was explained and both written and oral consent was sought from the respondents, to which they agreed to enrol in the study. On benefits/risks, the respondents were informed that there were no known risks associated with the research protocol. Moreover, there was no foreseeable harm that may arise from participating. They were however told that, they were at liberty to withdraw from taking part in the study if they desire to do so. The respondents were also told that, benefits that arise will contribute to literature on stress among workers in the society and Ghana. On anonymity and confidentiality, assurance was given to the respondents that, the information collected will be handled with strict confidentiality and will purely be used for academic purposes. Finally, the respondents were convinced to fully take part in the research.

3.12 Pilot study

The questionnaires for the research were piloted at the University of Professional Studies (UPS) at Legon on 12 supporting staff that have similar demographic characteristics as University of Ghana. The UPS was chosen because it has been upgraded to the university level. Respondents were asked to provide comments on extra questions or issues that might

be included as well as comment on how the questions were worded and its clarity. The final questionnaire was then created, based on the responses from the pilot study conducted. This was done to determine the reliability of the questionnaire.

CHAPTER FOUR

RESULTS

4.0 INTRODUCTION

This section presents the results of the study guided by three objectives. The results were presented on socio-demographic characteristics of research respondents, perceived stress, work stress inventory and coping strategies among supporting staff of the central administration, sex differences on perceived stress, stress work inventory and coping strategies and the association between perceived stress and demographic profile.

4.1 Socio-Demographic Characteristics of Respondents

A total of 214 participants were sampled for the study. Their ages ranged between 22 to 64 years, with a mean 37 years (± 10), median age 34 years and mode 18 years. 136(63.6%) were males, with median 37 years, were married, had first degree as their educational level professed to be Christians and had position at the central administration as senior staff. 118(55.1%) of the participants were married and 91(42.5%) had higher educational level being the first degree. The participants were from the three main religions in Ghana, 202(94.4%) of them professed to be Christians. Finally the supporting staff (50%) were senior staff. Table 1 below shows the detailed characteristics of the respondents.

Table 1: Socio-Demographics Characteristics of Respondent (N=214)

Characteristics	Frequencies (n)	Percentages (%)
Age category		
21-30	74	34.6
31-40	74	34.6
41-50	39	18.2
Above 50	27	12.6
Sex		
Male	136	63.6
Female	78	36.4
Marital Status		
Single	89	41.6
Married	118	55.1
Widowed	3	1.4
Cohabiting	4	1.9
Education Level		
Basic School Certificate/ Primary	6	2.8
Secondary School Certificate	29	13.6
Diploma/Teacher's Certificate 'A'/HND Certificate	26	12.1
First Degree	91	42.5
Second Degree and above	62	29
Religion		
Christian	202	94.4
Moslem	11	5.1
Traditional	1	0.5
Position of work		
Junior Staff	64	29.9
Senior Staff	107	50
Senior Members	43	20.1

4.2 Perceived Stress among Supporting Staff at Central Administration in the University of Ghana.

The score range for perceived stress was 0-40 and this was grouped into three levels. The low perceived level of stress comprised respondents with scores from 0-13, moderate level comprised of those with 14-26 while those within the 27-40 range were categorized as showing high level of perceived stress. The summary of responses is in table 2 below.

Table 2: Perceived Stress level of Respondents (N=214)

Perceived Stress Levels	Frequency	Percentage
Low	12	5.6
Moderate	173	80.8
High	22	10.3
No response	7	3.3
Total	214	100

Table 2 above reveals that, 12(5.6%) respondents had low perceived stress level, 173(80.8%) had moderate perceived stress while 22(10.3%) demonstrated high perceived stress level. It can be deduced that respondents generally perceived stress moderately.

4.3 Work Stress among Supporting Staff at the Central Administration in the University of Ghana.

This was used to answer the second objective. The supporting staff were asked to rate the factors considered to be indicators of stress with their work. From Table 3 below it was observed with a mean of 2.35, on 17 out of the 21 items indicated for the sources of stress among the supporting staff. The highest ranked sources of stress were to deal with several pressing problems at once (2.98), this is followed by, finding that rewards are not based on performance (2.74) and thirdly having inadequate personnel or equipment to respond in an emergency (2.72). The supporting staff were least stress or did observe disagreeing with superiors (1.80) as a source of stress. Moreover, when further analysis was done, it generally showed the University of Ghana supporting staff had low stress level (2.35) and an overall standard deviation of 1.38 was obtained and this is an indication that they share very dissimilar opinion on their stress levels.

Table 3: Indicators of Work Stress Inventory (N=214)

Work Stress Inventory	n	Mean	SD
Not knowing what superiors expect of me	204	2.14	1.269
Disagreeing with superiors	213	1.80	1.009
Not knowing how much authority I have	210	2.12	1.235
Finding that rewards are not based on performance (e.g.: promotion, raise)	207	2.74	1.50
Having to deal with several pressing problems at once	212	2.98	1.264
Not knowing what supervisors think of me	211	2.58	1.337
Not having the opportunity to participate in decision making	212	2.68	1.464
Having conflict job responsibilities	210	2.27	1.347
Having inadequate personnel or equipment to respond in an emergency	214	2.72	1.439
Feeling there's no clear chain of command	213	2.26	1.392
Being held responsible for too many different activities	211	2.46	1.325
Failing to receive recognition of achievement by supervisors	211	2.53	1.374
Having to do things on the job that are against your better judgment	214	2.07	1.184
Feeling that your work ability is under rated	213	2.64	1.439
Not being permitted to make decisions on your own	209	2.43	1.426
Receiving criticism from superiors	213	1.88	1.143
Receiving conflicting request	213	1.94	1.152
Finding a lack of assistance or support from superiors	212	2.31	1.245
Having ideas considerably different from those of my superiors	211	2.42	1.312
Being held responsible for mistakes by co-workers	214	1.86	1.127
Working under inconsistent policies and guidelines	213	2.43	1.414
		2.35	1.38

4.4 Coping Strategy among Supporting Staff at the Central Administration in the University of Ghana

Staff members were asked to rate the factors considered to be indicators of coping strategy with their work. From Table 4 below with the overall mean of 2.71, on 13 out of the 21 coping strategies was adopted by the supporting staff. the best 3 coping strategies that was ranked most high was to increase one's effort to make things work (4.14), the next highest was to pray or find faith in God or ones religion (4.13), and the third highest was to make a plan of action and follow it (3.81) and the least coping strategy was to smoke more (1.11). Generally the University of Ghana supporting staff at the central administration coped

moderately with stress (2.71). An overall standard deviation of 1.03 was obtained and this is an indication that they share very dissimilar opinion on how to cope with stress.

Table 4: Indicators of Coping Strategies (N=214)

Cope Items	n	Mean	SD
I watch TV or film	212	2.83	1.38
Listen to radio or music	214	3.59	1.27
I cry	212	1.41	0.77
Keep busy working	211	3.62	1.16
Ignore the situation	209	2.76	1.23
Pray or find faith in God or my religion	212	4.13	1.19
Try to get the person responsible to change his/her mind	211	2.76	1.10
Learn to leave stress at the office	208	3.58	1.20
Increase my effort to make things work	214	4.14	1.06
Make a plan of action and follow it	213	3.81	1.04
Seek help from friends	213	2.96	0.95
Seek help from relatives	214	2.3	1.06
Seek a counsellor or priest	213	1.91	1.04
Talk to somebody about the situation	211	2.85	0.97
Drink alcohol	212	1.35	0.79
Take tranquilizers	208	1.29	0.76
Smoke more	211	1.11	0.54
Eat	213	2.51	1.51
Talk to someone about how I am feeling	214	2.92	1.02
Eliminate unpleasant thought and emotions from memory	213	3.53	1.11
Are there other methods which you can use to control your stress than those mentioned above	214	1.63	0.48
		2.71	1.03

4.5 Stress and Coping Strategies among Male and Female Supporting at the Central

Administration in the University of Ghana

Sex differences on the perceived stress level between the supporting staff. From table 5 below the result showed a significant difference between the male ($M=20.2868$, $SD=5.05$) and female ($M=21.8205$, $SD=4.52$) workers perceived stress level [$t_{(212)} = -2.287$, $p < .05$]. This implied that females perceived stress more than their male counterpart.

Sex differences on the work stress level between the supporting staff. Summary of results as presented in table 5 below showed a significant difference between the male ($M=50.74$, $SD=15.79$) and female ($M=45.55$, $SD=15.17$) workers on work stress [$t_{(212)} = 2.344$, $p < .05$].

This implied that males were more stressed than their female colleagues.

Sex differences on the coping strategies between the supporting staff. Summary of results as presented in table 5 below did not show a significant difference between the male ($M=51.15$, $SD=7.67$) and female ($M=51.63$, $SD=7.58$) workers on coping strategy [$t_{(212)} = -0.414$, $p > .05$]. This implied that both female and male supporting staff coped with stress equally.

As conceptualized, the sex of an individual can trigger one's perception of stress. Also considering stressors in the work environment this can cause individuals to be stressed. In addition, the individual's experience of stress would be exhibited by psychological, behavioural and physical changes.

Table 5: Independent-Samples T-test of Perceived Stress Scale, Stress Work Inventory and Coping Strategies (214)

Various scales	Sex	n	Mean	SD	df	t	p
Perceived Stress Scale	Male	136	20.2868	5.05	212	-2.287	0.023*
	Female	78	21.8205	4.52			
Work Stress Inventory	Male	136	50.74	15.79	212	2.344	0.020*
	Female	78	45.55	15.17			
Coping Strategies	Male	136	51.15	7.67	212	-0.437	0.663
	Female	78	51.63	7.58			

* $p < 0.05$ significant

4.6 Factors influencing Perceived Stress level among Supporting Staff at Central Administration in the University of Ghana

Perceived Stress level in relation to age, sex, marital status, religion and position at work were not statistically significant. The results indicated the following: age ($\chi^2 = 7.219$,

$p=0.301$), sex ($\chi^2 = 2.818$, $p=0.244$), marital status ($\chi^2 = 1.963$, $p=0.923$), religion ($\chi^2 = 3.447$, $p=0.486$) and position at work ($\chi^2 = 6.423$, $p=0.170$). However, there was a significant relationship between perceived stress and educational level ($\chi^2 = 34.049$, $p < 0.00001$). The results demonstrate that an individual's perceived stress level is influenced by an individual's level of education. Table 6 shows chi-square, degree of freedom, p-value and their relationship with the socio demographic variables of the respondents.

Table 6: Factors influencing Perceived Stress level among Supporting Staff at the Central Administration in the University of Ghana

Factors* Perceived Stress	Chi-square (χ^2)	df	p-value
Age	7.219	6	0.301
Sex	2.818	2	0.244
Marital status	1.963	6	0.923
Educational level	34.049	8	<0.0001
Religion	3.447	4	0.486
Position	6.423	4	0.170

*** $p < 0.05$ significant**

4.7 Cross tabulation of Perceived Stress level and Educational Levels among the Supporting Staff at the Central Administration in the University of Ghana.

Perceived stress level in relation to education was statistically significant as shown in table 6 above. This has been broken down in levels that constitute the education in this study as also shown in table 7 below. The perceived stress level of the supporting staff who obtained Secondary School Certificate was low 13(16.7%). 55(44.0%) of the first degree supporting staff scored moderate perceived stress level and finally 4(100.0%) of the supporting staff who had first degree experienced high perceived stress level. This is an indication that, the higher one attains education and gets more knowledge, the higher one perceived stress level. As conceptualized, it is clear in table 7 that, the individual educational level (first degree) has an influence on one's perception of stress in this study.

Table 7: Cross tabulation of Perceived Stress level and Educational Levels

Education Level	Perceived Stress level			No response	Total
	Low	Moderate	High		
Basic School					
Certificate/ Primary	1(1.3%)	5(4.0%)	0(0.0%)	0(0.0%)	6(2.80%)
Secondary School					
Certificate	13(16.7%)	15(12.0%)	0(0.0%)	1(14.3%)	29(13.6%)
Diploma/Teacher's					
Certificate 'A'/HND					
Certificate	9(11.5%)	15(12.0%)	0(0.0%)	2(28.6%)	26(12.1%)
First Degree	29(37.2%)	55(44.0%)	4(100.0%)	3(42.9%)	91(42.5%)
Second Degree and					
above	26(33.3%)	35(28.0%)	0(0.0%)	1(14.3%)	62(29.0%)
Total	78(100%)	125(100%)	4(100%)	7(100%)	214(100%)

CHAPTER FIVE

DISCUSSION

5.0 INTRODUCTION

This study aimed at investigating stress and coping strategies among supporting staff at the central administration in the University of Ghana. It sought to assess the perception of stress, identify the sources of stress and finally find the coping strategies the supporting staff adopt to cope with stress at the central administration. Discussion has been done taking into account the objectives set for this research.

5.1 Assessment of Perception of stress among Supporting Staff at the Central Administration in the University of Ghana

Perceived stress usually viewed as an outcome variable measuring the individuals experienced level of stress as a function of objective stressful events, coping processes and personality factors. This research therefore sought to measure the level of perceived stress among supporting staff at the central administration in the University of Ghana.

From Table 2 above, 173(80.8%) of the respondents interviewed at the central administration perceived stress moderately in the various roles they play as supporting staff of the university. This in part, could be attributed to the supporting staff's expectation and opportunities that come in the way of the respondents. There are factors which could make these respondents demonstrate moderate level of perceived stress and knowledge could be one. Another is the individual's inability to satisfy his or her expectations in the area of work leading to the moderate level of perceived stress. Moreover, it is generally perceived that, the highly educated people usually ends up cutting off most of their social links because of their confidence they have in handling their own affairs.

Furthermore, it was hypothesized there was no significant difference in the respondent's level of educational and perceived stress. The findings in table 6 showed there was a significant relationship between perceived stress and educational level. The first degree holders constitute a larger number 91(42.5%) and out of it, 4(100.0%) contributed significantly to the high perceived stress level. 55(44.0) of the first degree holders had moderate perceived stress level while 29(37.2%) had low perceived stress level. Conversely, out of the 62(29.0%) of the second degree and above supporting staff, 26(33%) had low perceived stress level, 35(28.0%) moderate perceived stress level and 0(0.0%) had high perceived stress level in this study. Perhaps if the proportion of the first degree and the second degree supporting staff were equal, the perceived stress level could have been higher for the second degree and above holders. The other factors such as the age, sex, marital status, religion as well as position of the supporting staff at workplace were not statistically significant (p -values ≥ 0.05) in relation to perceived stress scale as shown in table 6. The study finding is also consistent with the conceptual frameworks proposed for the study.

Finally it was hypothesized there was no significant difference between the male and female stress level at the central administration. However, table 5 indicated there was a significant difference in the work stress [$t_{(212)}=2.344$, $p < 0.05$]. It showed that the males were more stressed than the female concerning their work. This may be so because males are more predominant at the central administration.

5.2 Identification of the Sources of Stress among Supporting Staff at the Central Administration in the University of Ghana.

The various sources of stress among the supporting staff in the university were also looked at and the outcome has been presented in table 3 above. In this study, the most inducing stress factor was to deal with several pressing problems at once ($M = 2.98$). The work load and the

given period to meet a target from the supporting staff could be the cause of this source of stress. The supporting staff usually serve as the interface between the student body and the lecturers and as well play other administrative roles. Specifically they guide students through admissions, registration process, orientate students and new staff upon their entry into the university. However, the challenge of strained financial resources, increasing student enrolment, increasing regulation and accountability and innovations in technology all add to the workload and stress of these supporting staff members. Winefield (2000) observed the prevalence of stress among academic and general staff of universities. This is also captured in similar research done by Ahsan, Abdullah, Fie, & Alam (2009) in Malaysia who identified work overload, role ambiguity and performance pressure as the main source of stress on academic staff. This also corroborate with the findings of Humboldt et al., (2013) who also identified high workload as the most widespread source of occupational stress.

The second source of stress was finding that rewards are not based on performance ($M = 2.74$). Working without reward can cause stress and the end thereof is the experience of psychological breakdown, behavioural and physical changes in the affected individuals. Rewards are perhaps based on the number of years of recruitment in an educational setting like the University of Ghana and not based necessarily on performance. This finding is consistent with a research done by Akussah et al., (2012). In their study, this same stress inducing factor was ranked the highest.

A third source of stress identified among the supporting staff was having inadequate personnel or equipment to respond in an emergency ($M = 2.72$) as showed in table 3. Having inadequate personnel or even equipment to work with, are enough reasons for an individual to get stressed out at the work place. This implied that, both the individual and the institution will be stressed and stagnation becomes an option for the institution. This evidence shows how Ghanaian conditions of service in public organisations can be.

5.3 Coping strategies among Supporting Staff at the Central Administration in the University Ghana.

This study investigated into the various coping strategies adopted by supporting staff in the University of Ghana. The study identified both the emotion and problem focused as coping strategies with which the supporting staff coped with stress. As this was conceptualized, it was evident as shown in table 4. The supporting staff used 13 out of the 21-item of coping strategies on the mean of 2.71. Out of the 21-item coping strategies, increasing one's effort to make things work was highly ranked ($M = 4.14$), this falls under problem focused strategy. This was followed closely by praying or finding faith in God or one's religion ($M = 4.13$) which is an emotion focused strategy. In this study, about 70.1% of the study population were Christians and it is therefore expected that the supporting staff will sort to prayers and find faith in God. This finding goes to confirm the assertion made by Pearlin, Menaghan, Lieberman, & Mullan (1981) that, coping are a set of specific behaviour that vary with the substance of people's problem and the social roles in which these problems emerged. In addition, a unique finding from the first year principals in a study suggested that, prayer should be used as a coping strategy (Fields, 2005). It could also be possible that, most of these respondents with higher level of education believed in their own ability to overcome most challenges they may encounter in their work as supporting staff in the university. This probably could have contributed to the supporting staff making who made a choice of thinking of increasing one's effort to make things work.

In addition, Billings & Moos (1981) mentioned that, unlike men, women tend to utilize emotion-focused strategies more. This might have adverse side effect especially as it delays the individual to solve the problem. This is however different in men who most of the time believed in their own strength and ability to handle stress. With male constituting 63.6% of the respondents, it is therefore likely to adduce why increasing one's effort to make things

work was highly ranked. This is due to the fact that, men use more of problem focused strategies than the females. This corroborates with a study by Folkman & Lazarus (1980) who revealed that, there was a gender difference in problem-focused coping where men were found to use more of the problem-focused coping than women meanwhile for the emotion-focused coping there was no gender differences.

A third coping strategy that was found out to be common to the supporting staff was to make a plan of action and follow it ($M = 3.81$). As conceptualized, this is embedded in the problem focused coping strategies. Owing to the fact that the highest ranked stress inducing factor was to deal with several pressing problems at once. This explains why the supporting staff will employ a plan of action and follow it as a coping strategy to reduce their stress at the work place. This could also be because of the male domination over the females at the central administration.

The hypothesis is that, there is no significant difference between the way males and females cope with stress. Nevertheless table 5 confirmed no significant difference between the way the males and the female cope with stress. This implies the male and the females cope similarly with stress. The setting and the shared workload may contribute to the similarity in which the supporting staff coped with stress.

The least coping strategies from Table 4 above were to smoke more and to drink alcohol though the researcher is of the view that, smoking is not an accepted societal norm. The supporting staff used less of these coping items which falls under emotion focused strategy. Moreover this is consistent with a study conducted by Sreeramareddy et al., (2007) which also found out that, the least coping strategy used by the respondents was alcohol/drugs and this falls under emotion-focused strategies. Other coping strategies identified includes going for a walk, taking annual leave regularly, rest/ sleep and exercise.

Stress may usually come in different forms and in most cases are unavoidable, the coping strategies used by individuals in response to this stressful conditions goes a long way to determine the impact of stress on the individuals. Most work places that either provide or facilitate opportunities for employees to engage in effective coping strategies are more likely to foster less stressful climates and contribute to less stress for employees (Ongori & Agolla, 2008). Therefore promoting activities like exercise, relaxation activities, and other healthy practices can contribute significantly to improved work climate and personal stress management through effective coping.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.0 Conclusions

As have been noted, I observed a significant relationship between the perceived stress and the educational level of the supporting staff at the central administration in the University of Ghana. In the final analysis, the first degree level of education contributed greatly to the moderate perceived stress level. In this study also, there was a significant difference between the males and the females work stress level. This implied the males work stress level was more than that of the females. However according to this study both the males and females coped with stress in a similar way.

6.1 Recommendations

In view of the findings and based on the drawn conclusion in this study, it is therefore recommended that:

- The Human Resource Organisation Development Directorate (HRODD) unit should provide stress management seminars for the supporting staff to help empower the individuals to manage stress.
- The HRODD unit should employ more supporting staff to counter the effect of lack of personnel to effectively respond to increased workload.
- The HRODD unit should make it a norm to reward based on the performance of the supporting staff.
- The HRODD unit should offer more working arrangements to counter the effect of dealing with several pressing issues at the same time.
- The HRODD unit should encourage the supporting staff and make sure that they all adopt stress coping strategies to enable them to be productive on the job.

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APPENDICES

APPENDIX A: Consent form

Project title: *Stress and Coping Strategies among Supportive Staff of the Central Administration of University of Ghana.*

Institutional Affiliation

School of Public Health

College of Health Sciences

University of Ghana

Legon.

Background

Personal information

The lead investigator is Yvonne A. Azumah, currently a master's student of the school of Public of Health; Legon is undertaking a study on Stress and Coping Strategies among Supportive Staff of the Central Administration of the University of Ghana. This study is for academic purpose and the requirement for the award of Master of Science degree in Applied Health Social Science under the supervision of Mr Emmanuel Asampong of the School of Public Health, University of Ghana, Legon.

Procedure

Interview will be conducted using survey questionnaires.

Risks and benefits:

Although there are no known risks associated with the research protocol, if you feel uncomfortable, you have the right to opt out. You are also at liberty to withdraw from participating if you desire to do so. There is no reasonable foreseeable harm that may arise from participating in this research. Benefits that arise would contribute to the tittle literature available on ways to manage stress among workers in the society and Ghana as a whole.

Anonymity and confidentiality

Please rest assured that, information collected will be handled with the strictest confidentiality, this would not be shared with third parties not directly involved in the research and thus will be used for purely academic purpose.

Before taking consent

If you have any question, be at liberty to ask. If you have questions you wish to ask later, or anything you wish to seek clarification on regarding the research, please do not hesitate to contact the principal investigator Yvonne A. Azumah on; telephone number (0244109478) or email yonnazie@gmail.com or the academic supervisor Mr Emmanuel Asampong on asampong2000@yahoo.com or the ethics administrator Ms Hannah Frimpong on (0244516482).

PARTICIPANT

I..... have been adequately informed about the purpose, procedures potentials risk of this study. I have had the opportunity to ask questions which has been answered to my satisfaction. I know that I can refuse to participate in this study without any loss of benefit to which I would have been otherwise been entitled. Having gone through the consent form thoroughly, I agree to enrol in this study.

Name of participant.....

Signature or thumb print.....

Date.....

Interviewer's statement:

I have explained the procedure to be followed in this study to the participant in the language that he or she understands best and has agreed to participate in the study.

Signature of interviewer.....

Date.....

APPENDIX B: Questionnaire

Introduction

I am a student of the School of Public Health at the University of Ghana conducting a research on stress and coping strategies among supportive staff of the Central Administration of the University of Ghana. You are assured that any information given would be used for academic purposes only and your personal identity will not be revealed.

SECTION A: DEMOGRAPHIC CHARACTERISTICS

Please circle the appropriate responses, and where necessary provide the relevant answer for the question.

1. **Age**.....
2. **Sex** a. Male b. Female
3. **Marital Status** a. Single b. Married c. Divorced d. Separated
e. Widowed f. Cohabiting
4. **Education Level**
a. Basic School Certificate/ Primary
b. Secondary School Certificate
c. Diploma/Teacher's Certificate 'A'/HND Certificate
d. First Degree
e. Second Degree and above.
5. **Religion**
a. Christian b. Moslem
c. Traditional d. Non-religious
e. Other (specify).....
6. **Which unit do you belong to?**
7. **At what times do you come to office/work?**
8. **At what time do you close from work?**
9. **Position at work**
a. Junior staff b. Senior staff c. Senior member

10. How long have you worked in your current job?
11. What is your travel time to work? (Minutes).....
12. What is your means of transportation to work?
13. What is your level of income in GH¢ ?
- a) Below 200 b) between 201-500 c) between 501-1000
- d) Between 1001-2000 e) 2001 and above.

SECTION B: Perceived Stress Scale

For each question choose from the following alternatives:

0 – never 1 – almost never 2 – sometimes 3 – fairly often 4 – very often

----- 1. In the last month, how often have you been upset because of something that happened unexpectedly?

----- 2. In the last month, how often have you felt that you were unable to control the important things in your life?

----- 3. In the last month, how often have you felt nervous and stressed?

-----^a4. In the last month, how often have you felt confident about your ability to handle your personal problems?

-----^a5. In the last month, how often have you felt that things were going your way?

----- 6. In the last month, how often have you found that you could not cope with all the things that you had to do?

-----^a7. In the last month, how often have you been able to control irritations in your life?

-----^a8. In the last month, how often have you felt that you were on top of things?

----- 9. In the last month, how often have you been angered because of things that happened that have been outside of your control?

----- 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Source: Cohen et al., (1983).

^a Scored in the reverse direction.

SECTION C: THE WORK STRESS INVENTORY

1 **Very little** 2. **A little** 3. **Moderate amount** 4. **Much** 5. **Very much**

Please, the questions should be answered using the above scale. One number should be circled for every statement.

1	Not knowing what superiors expect of me	1	2	3	4	5
2	Disagreeing with superiors	1	2	3	4	5
3	Not knowing how much authority I have	1	2	3	4	5
4	Finding that rewards are not based on performance (e.g.: promotion, raise)	1	2	3	4	5
5	Having to deal with several pressing problems at once	1	2	3	4	5
6	Not knowing what supervisors think of me	1	2	3	4	5
7	Not having the opportunity to participate in decision making	1	2	3	4	5
8	Having conflict job responsibilities	1	2	3	4	5
9	Having inadequate personnel or equipment to respond in an emergency	1	2	3	4	5
10	Feeling there's no clear chain of command	1	2	3	4	5
11	Being held responsible for too many different activities	1	2	3	4	5
12	Failing to receive recognition of achievement by supervisors	1	2	3	4	5
13	Having to do things on the job that are against your better judgment	1	2	3	4	5
14	Feeling that your work ability is under rated	1	2	3	4	5
15	Not being permitted to make decisions on your own	1	2	3	4	5
16	Receiving criticism from superiors	1	2	3	4	5
17	Receiving conflicting request	1	2	3	4	5
18	Finding a lack of assistance or support from superiors	1	2	3	4	5
19	Having ideas considerably different from those of my superiors	1	2	3	4	5
20	Being held responsible for mistakes by co-workers	1	2	3	4	5
21	Working under inconsistent policies and guidelines	1	2	3	4	5

Source: Adapted modified questionnaire.

SECTION D: Please circle a number per statement using the scale below indicating how you cope with stress at work.

1. Almost never 2. Rarely 3. Sometimes 4. quite 5. most of the time

1	I watch TV or film	1	2	3	4	5
2	Listen to radio or music	1	2	3	4	5
3	I cry	1	2	3	4	5
4	Keep busy working	1	2	3	4	5
5	Ignore the situation	1	2	3	4	5
6	Pray or find faith in God or my religion	1	2	3	4	5
7	Try to get the person responsible to change his/her mind	1	2	3	4	5
8	Learn to leave stress at the office	1	2	3	4	5
9	Increase my effort to make things work	1	2	3	4	5
10	Make a plan of action and follow it	1	2	3	4	5
11	Seek help from friends	1	2	3	4	5
12	Seek help from relatives	1	2	3	4	5
13	Seek a counsellor or priest	1	2	3	4	5
14	Talk to somebody about the situation	1	2	3	4	5
15	Drink alcohol	1	2	3	4	5
16	Take tranquilizers	1	2	3	4	5
17	Smoke more	1	2	3	4	5
18	Eat	1	2	3	4	5
19	Talk to someone about how I am feeling	1	2	3	4	5
20	Eliminate unpleasant thought and emotions from memory	1	2	3	4	5

21. Are there other methods which you can use to control your stress than those mentioned above? (a) Yes (b) No

If yes to question (21) what are they?

.....