

**UNIVERSITY OF GHANA
DEPARTMENT OF PSYCHOLOGY**



**STRESS, BURNOUT AND EMPLOYEES SUICIDE IDEATION: THE MODERATING
ROLE OF SOCIAL SUPPORT**

BY

CHARLOTTE YAA DORGBEFU


10242238

**THIS THESIS IS SUBMITTED TO THE DEPARTMENT OF PSYCHOLOGY,
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DECLARATION

I hereby declare that this work is the result of my own research and has not been offered by anyone for any award in this or any other university. All references used in this work have been fully acknowledged. I bear sole responsibility for any shortcoming in the work.



.....

Date: May/ 08 / 2020

CHARLOTTE YAA DORGBEFU

(STUDENT)

CERTIFICATION

I hereby certify that this work was supervised in accordance with the laid down guidelines by the University of Ghana.



.....

Date: May.../...8.../.2020.

PROF. JOSEPH OSAFO

(Supervisor)

.....

Date:...../...../.2020.

DR. BENJAMIN AMPONSAH

(Co Supervisor)

DEDICATION

I dedicate this thesis to my lovely family, for all their continued support and encouragement in all my life endeavors. May God bless you!!

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ABSTRACT

The study was a cross-sectional survey that assessed the influence of stress and burnout on suicide ideation among the formal and the informal sector employees of Ghana. The study also assessed social support as an ameliorating factor in the association between stress, burnout, and suicide ideation. The role of the sector of work on suicide ideation was also assessed. Three hundred and thirty-eight (n=338) employees were recruited from formal and informal organizations for the study. Data collection was done through the use of Job Stress Scale, Maslach Burnout Inventory, Pansi Suicide ideation, and the Perceived Social Support Scale. The Pearson Moment Correlation Coefficient, Independent sample t-test, and the Regression analysis were used in data analysis. The results indicated that there was a positive association between organizational stress and employees' suicide ideation. There was a positive correlation between organizational stress and employees' burnout. There was a positive correlation between organizational burnout and employees' suicide ideation. Social support moderated the correlation between stress and employee burnout. Social support moderated the relationship between stress and suicide ideation. There was no significant difference between employees' suicide ideation, stress, and burnout in the formal and informal sectors. All the demographic factors were not significant predictors of suicide ideation, burnout, and stress except marital status. The implication of these findings suggests that suicide is partly explained in terms of stress and burnout. However, social support ameliorated the consequences of stress and burnout on suicide ideation. Findings were discussed based on existing studies and theoretical framework.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

As we go by our normal day to day activities, we get confronted with activities that make us worthless and we sometimes think of possibilities that can be used to do away with these feelings (Valderrama, 2016). Committing suicide or attempting suicide is a common practice of wanting to do away with feelings (Fountoulakis, Dome, Theodorakis & Rihmer, 2014). The World Health Organization's global report emphasizes that one of the leading causes of death around the world is suicide (WHO, 2016). Over a million individuals worldwide lose their lives due to suicide yearly and there are many more who attempt suicide (WHO, 2016). In Ghana, suicide is estimated to be 7.53 deaths/1,000 of the population every year (Osafo, Knizek, Akotia & Hjelmeland, 2011). Milner, Page and LaMontagne (2013) found that 24% of 1,865 employees in Ghana have thought about attempting suicide. Thus, suicide among employees is an issue of great importance.

Suicide involves taking one's life on purpose (Lee, Byun, Kim, Lee & Kim, 2016). Suicidal behavior is the actions of a person such as taking a drug overdose or crashing a car on purpose that could cause death (Knizek, Hjelmeland & Akotia, 2010). Schneidman (2016) defined suicide as "the conscious act of self-induced annihilation, best understood as a multidimensional malaise in a needful individual who defines an issue for which the act is perceived as the best solution" (p.12). Suicide does not occur randomly but it is a way out of a crisis or a difficulty that is unvaryingly leading to extreme suffering. Suicide is concomitant with disenchanting or unsatisfied needs, feelings of fruitlessness and defenselessness, and the need for seepage; the person seeking to commit suicide mostly sends out signals of anguish (Lee et al., 2016).

Most individuals experience suicidal tendencies without carrying it through, although some make an attempt of committing suicide. There is no suicide without the intention of death (Milner et al., 2013). Thus, suicide begins with the intention of death known as suicide ideation. Before a person engages in suicide, the individual might have had the intention over a period of time.

Hence suicide ideation is a precursor and a very important assessment of suicide itself (Lee et al., 2016).

Suicidal tendencies deal with thoughts of unusual preoccupation with suicide (Osafo, Knizek, Akotia & Hjelmeland, 2013). Suicide ideation is the tendency for a person to make suicide attempts. It is the thoughts of death. These thoughts can vary from a thorough plan to a brief reflection and excludes the ultimate act of death itself. Most individuals who have suicidal thought do not carry it through. This varies from imagination to proper planning; which can fail or be successful or lead to death (Addai, Ofori, Wiafe-Akenten & Tweneboah, 2018). Suicidal thought can upsurge in frequency and increase to become more elaborative which may include thoughts of not only to kill oneself but also thought of how it may be like and how one would commit suicide (Paladino & Minton, 2008). Suicide ideation is a perilous part of the suicide process as it precedes suicide attempts and completes the suicidal act itself (Addai et al., 2018). Thus, the suicide process involves suicidal thoughts, a detailed plan, an attempted suicide, and completing the suicide. It is therefore essential to identify early steps to stop the progression of suicide in order to curtail the plan or attempt to stop it (Milner, Page & LaMontagne, 2013).

According to Yeong, Eun-Cheol, Jae, Jeong, Kyoung, and Sohee (2016), many individuals go through a great deal of pain and difficult times that they lose their desire to continue living. Thus, they contemplate death as the last resort to their plight. Individuals who harbor such thoughts may

be residing in a world of anguish that death no longer frightens them but rather looks like an easy way out. As asserted by Savitha and Srimathi (2017), the mental health problem is a predominant cause of suicidal tendencies. A growing body of evidence emphasizes that mental health problems such as stress and burnout are high among students in organizations, which may cause suicide ideation (Addai et al., 2018; Milner, Page, & LaMontagne, 2013). If the level of stress is too severe, it can lead to burnout which could ultimately resorts in suicidal tendencies.

Research has shown that suicide and suicide ideation usually occur in people who go through many tribulations making them lose their desire to continue living (Takeuchi & Nakao, 2013). They perceive death as the last option to end their predicaments (Fitzpatrick et al., 2018). Stress is a major cause of suicide ideations. According to Takeuchi and Nakao (2013), “occupational stress occurs when external demands and conditions do not match a person’s needs, expectation or ideas or exceeds their physical capacity skills or knowledge for comfortably handling of a situation” (p. 12). Stress occurs as a result of economic, social, emotional or physical factors that require a response to variation (Fountoulakis, Dome, Theodorakis, & Rihmer, 2014). The interaction of the employees and the work conditions are a critical cause of stress (Khamisa, Peltzer, Ilic, & Oldenburg, 2017). An employee works a countless number of hours. Generally, the number of hours an individual should work should be proportional to his/her remunerations.

When individuals perceive that this does not exist, they start with the negative thought processes.

Stress can directly result in physical or psychological health problems (Badu & Asumeng, 2013). Research has found a strong association between stress and a multiplicity of sicknesses such as headache, stomach problems, cardiovascular diseases, and sleep disturbances. According to extant

studies, psychologically demanding jobs that allow employees diminutive control escalates the peril of cardiovascular disease (Fountoulakis, Dome, Theodorakis, & Rihmer, 2014). Stressful working conditions impede safety at work and breeds accidents at work (Badu & Asumeng, 2013). As such, the changing world of work is creating increased strains on workers, through merger and acquisition, job insecurity, downsizing, temporary contracts, and poor worklife balance.

In the Ghanaian context, the informal sectors are faced with numerous pressures. The sector is characterized by underemployment, poor working conditions, uncertain work relationships and low wages. The majority of people are living with high-income insecurity. The trade unions are facing major challenges to organize workers in the informal sector to ensure that the employees are working in an environment which is not harmful to them and secures their basic human needs. All of these may result in the high level of stress and have the tendency to make employees conceive suicidal tendencies in the sector (Ozkan, Karaman, Ozturk, Ahun & Selmi, 2015).

When employees experience intense stress due to various working situations and are not able to cope with such stress, it could lead to burnout (Ozkan, Karaman, Ozturk, Ahun & Selmi, 2015). Burnout is a continued response to enduring interpersonal or emotional stressors that employees experience in the job. Burnout can be the exhaustion of physical or emotional strength or of motivation usually as a result of prolonged stress or frustration (Ozkan et al., 2015). Burnout is followed by signs such as exhaustion, anger and suspicion and vulnerability to headaches and intense cold (Badu & Asumeng, 2013). How individuals deal with stress determines how they

experience burnout. An employee can perceive stressors but may not be able to deal with them whilst an employee can experience substantial stressors and deal with them, and avoid burnout.

An employee who suffers burnout becomes perplexed, confused and this may result in physiological and psychological consequences. Burnout can adversely result in ailment and emotional strain. Burnout could ultimately lead to depression and the final consequence may be to result to suicidal tendencies (Ozkan et al., 2015).

Moreover, some people adopt a protective mechanism to protect themselves against suicide ideation even when they are under intense stress and burnout. Social support is “one of the imperative protective mechanisms which provide some form of resilience against suicide ideation” (Cowherd, 2012, p. 24). Social support denotes to the provision of material and psychological resources expected to help an individual deal with their stressful situation (Cowherd, 2012). Social support improves subjective well-being and serves as a protective factor against negative life outcomes such as intense stress and burnout. Individuals with low quality and quantity support are left to their fate to battle with stressors of life (Badu & Asumeng, 2013).

Two models have emerged concerning the influence of social support (Interlenghi & Salles, 2015). These are the Main Effects Model and the Buffering Effects Model. The Main Effect Model argues that the effect of social support in promoting positive psychological responses makes it difficult to feel the massive impact of stressors such as suicide ideation. Thus, the Main Effect indicates that perceive social support helps to cope with stressors. The second model (Buffering Effects) argues that the importance of social support is apparent when it is able to influence the negative impact of perceived stress. The availability of social support, therefore, moderates the negative effects

elicited by stress by attenuating the inability to effectively cope with the consequences associated with it such as suicide ideation (Wang, Cai, Qian & Peng, 2014).

This study, therefore, intends to assess the influence of social support on ameliorating the influence of stress and burnout on suicide ideation.

1.2 Statement of the Problem

In Ghana, media reports showed that Ghana recorded over 1,500 suicide cases yearly and this was caused by stress and burnout (Knizek, Hjelmeland & Akotia, 2010). Suicide statistics in Ghana put together by the Network for Anti-suicide and Crisis Prevention indicates that occupations had the highest number of suicide deaths over the past five years, recording 431 and still counting (Knizek, Hjelmeland & Akotia, 2010). Among Ghanaians, there have been numerous reports of attempted suicide, especially among students but less is known about potential risk factors within the organizations (Badu & Asumeng, 2013; Knizek, Hjelmeland & Akotia, 2010). Suicides occurring at organizations are always unpronounced making management fail to find a remedy to it.

Employees encounter stress every now and then. Employees always experience external demands and conditions that do not match their expectations or exceeds their physical capacity, knowledge or skills for contentedly handling of a situation, and these factors, as demonstrated in the literature, seem to be on the ascendency. Developments seem to show that these factors have often been explored apart or at best, in relation to other work-related factors, such as job performance, job satisfaction, commitment, turnover rate, organizational success, and stigmatization. Thus research exploration of the links between these three important variables, and especially their relationship

to employees of their specific dimensions, is evidently missing from the literature. In order to help organizations and policymakers to tackle such problems systematically, it is imperious that research is carried out to ascertain the relationships that exist between these factors and how the specific dimensions' of stress and burnout individually and collectively predict suicide ideation among employees in both the formal and informal sectors.

An estimated 29.1% of employees throughout the world report stress which culminate in burnout at any given time. Statistics indicates that most people are at high levels of stress symptoms and risk of suicide ideation (Shaheen & Jahan, 2017). Due to the recent incidents of the high level of suicide around us, the big question is, what is really causing high suicide ideation among workers, and why is it difficult to control these factors? This research was expected to help find some answers to these questions.

1.3 Objectives of the Study

Primarily, the study was conducted to assess the influence of stress and burnout on suicide ideation among employees in the formal and informal sectors in Accra, Ghana. Specifically, this study sought to achieve the following secondary objectives:

- To find the correlation between stress, burnout and employees' suicide ideation.
- To assess whether social support will moderate the nexus between stress and suicide ideation
- To assess whether the association between employees' burnout and suicide ideation will be moderated by social support.
- To ascertain the differences in employees' suicide ideation in the formal and informal sectors.

1.4 Relevance of the Study

Every study comes with its usefulness and significance to individuals, institutions and the country as a whole. The outcome of this study will be of great importance in three strands: academics, practice and policy formation.

Academically, the outcome of the study will serve a great deal of significance to the field of knowledge. Findings will contribute to the understanding of the role of social support in the association between stress, burnout, and suicide ideation, especially, in Ghana. The findings will, therefore, contribute to reducing the paucity of literature in this area and to giving direction to future researchers on relevant areas to examine.

In practice, the outcome of the study will provide insight to help management appreciate and understand the role of social support in the consequences of stress and burnout on suicide ideation. The evidence that will be provided here will enable organizations to design interventions that will mitigate both the individual and combined effects of these factors as well as the effects of their specific dimensions. It will help clinicians to devise ways of reducing suicide by targeting people with a high level of stress which can result in burnout and hence suicide ideation.

By increasing our knowledge on the possible means through which stress and burnout are related to suicide ideation, the outcome could help to develop more effective public health programs, not only for the employee, but the general public as well. Evidence from this study would provide an impetus for developing new prevention, intervention and support programs for the highly-at-risk employee.

The outcome of the study may help identify the factor (social support) that intervene in the association between stress, burnout, and suicide ideation. This may help devise and provide adequate social support to a strategy of reducing the adverse effects of suicide ideation by attenuating burnout and stress among individual employees. This is because if social support reduces the levels of burnout and stress, then improving social support will serve as a means of decreasing the negative consequences of suicide ideation. Thus, the findings may not only further our understanding of how stress and burnout affect suicide ideation, but will also be able to identify alternative and more proficient interventions for eradicating suicide ideation.

1.5 Chapter Summary

This chapter presented an overview of the study. To this end, the chapter focused on the background, the problem of the study which gave the impetus for the objectives and the statement of purpose. The objectives and significance of the study were also stated.

The ensuing chapter presents the literature review which consists of the theoretical underpinnings explaining the nexus between the underlying variables and the related studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Following the background of the study as delineated in Chapter One, the objective of Chapter Two is to present relevant literature, theories and conceptual framework on social support as ameliorating factor in the nexus between stress, burnout, and suicide ideation.

This chapter encompasses a comprehensive presentation of the theoretical underpinnings that have been projected in the quest to understand the consequences of job stress and burnout on suicide ideation. This chapter also presents the results of selected empirical studies helping to apprehend the underlying association between the variables considered in the study.

2.2 Theoretical Perspectives

This section expounds on pertinent theoretical perspectives and frameworks of job stress, burnout and suicide ideation that underpin the study. It has been highlighted that the notion of job stress, burnout, and suicide ideation seems too complicated and multidimensional to be meaningfully and accurately elucidated by a single theory (Sarracino, 2010). Due to this, different theoretical viewpoints have been proposed and refined strenuously in the quest to create a clear view of the fundamentals and focus of the association between the underlying variables. There are three theoretical underpinnings of this study. These are the Cognitive Behavioural Perspective Theory (Comstock & Partridge, 2002), Sociological Suicidal Theory (Durkheim, 1917) and the “Interpersonal-Psychological Theory of Suicidal Behavior” (Joiner, 2005, p. 18). These theories are discussed next.

2.2.1 The Cognitive Behavioural Theory

The philosophy of cognitive-behavioural therapy is that, distorted thinking has a negative effect on a person's behaviour no matter what disorder they have. Beck (1996) explained that successful interventions will educate a person to understand and become aware of their distorted thinking and how to challenge their effects. Beck discovered that core frequent negative automatic thoughts reveal a person's core beliefs. These core beliefs are formed over lifelong experiences; we "feel" these beliefs to be true (Beck, 1996). The key aspects of the Cognitive Behavioural Theory are to challenge the irrational beliefs that we hold about ourselves. Aaron Beck the primary founder of Cognitive Behaviour Theory assumed that people can control how they feel and what they think. He believed that our inner thoughts and beliefs affect how we behave on the outside. One of the key concepts is that the client's dysfunctional thinking can be derived from an erroneous internal processes or bias' (Kalodner, 2011).

One theory within the psychodynamic theory that has gained support in explaining the causes of suicidal tendencies is the cognitive perspective (Comstock & Partridge, 2002). The cognitive behavioural theory perceives that defective thinking is a major cause of suicidal tendencies. The theory puts great emphasis on mental processes that individuals are aware of or things that individuals can bring back to their awareness, as opposed to concealed motivations, conflicts, and feelings (Comstock & Partridge, 2002). It pays consideration to people's pattern of thoughts as a major cause of death rather than personal histories.

The cognitive-behavioural theory proposes that stress and burnout result from irrational, defective, or maladaptive thoughts in the form of distorted thinking and conclusions. The theory emphasizes that the individual who is stressed out thinks somewhat contrarily compared to an individual who is not stressed out. It is the differences in thought that causes burnout. Example, people who are

stressed and depressed see themselves and the future in an undesirable, damaging perspective (Comstock & Partridge, 2002). As a result, the individual who is stressed out tends to misconstrue facts in a harmful way and tend to blame themselves in case any calamity occurs. The unwanted judgment or cognitive style works as an adverse bias and makes the individual who is stressed out to interpret situations in a negative way. The negative interpretation increases the risk of the individual to develop negative thoughts to situations. This has the propensity to influence them in negative thoughts such as suicidal tendencies (Comstock & Partridge, 2002).

One theory within the cognitive behavioural theory is Beck's Cognitive Theory (Beck, 1975). Beck (1975) indicated that “negative thoughts, generated by dysfunctional beliefs are typically the primary cause of depressive symptoms and one of its consequences is suicide ideation” (p. 17). “A direct relationship occurs between the amount and severity of someone's negative thoughts and the severity of their depressive symptoms. In other words, the more negative thoughts you experience regarding a job, the more stressful one will become” (Beck, 1975, p. 22). The implication of this theory is that when one perceives external demands and conditions above their limits, the individual will not be able to handle the situation and for that reason, stress will occur. The perception of control associated with this stress will lead to burnout. Individuals in such conditions will then perceive the stress or burnout as above their limit or within their limit. Individuals who will perceive the event as above their limit may then experience suicide ideation.

2.2.2 Interpersonal-Psychological Theory

According to the interpersonal-psychological theory, an individual will not die by suicide unless he or she has the capacity to die by suicide or the wish to do so (Joiner, 2005). The theory answers the question of who desires death and what leads to the desire of deaths?

In answering the question of who wishes to commit suicide, the theory posits that, when an individual has simultaneously two states in the mind, and the two states persist for a long time then the person develops the intention to die. According to Joiner (2005), these two psychological states are perceived burdensomeness and a sense of low belongingness or social alienation. The perceived burdensomeness deals with the presence of burden emanating from friends, family, significant others' or society. This view produces the idea that my death will be worth more than my life to family, friends and society at large. The perceived burdensomeness results in intense stress among people. The intense stress as a result of perceived burdensomeness compels people to think of suicide (Joiner, 2005).

According to Savitha and Srimathi (2017), low sense of belongingness is the experience that one is alienated from others, not an integral part of a family, circle of friends, or other valued groups. The theory predicts stress as a major outcome of a low sense of belongingness (e.g., Savitha & Srimathi, 2017). The outcome of a low level of belongingness is stress which breeds suicide ideations.

2.2.3 The Sociological Theory of Suicide (Durkheim, 1917)

This theory was proposed by Durkheim (1917). It proposes that socially integrated persons are more secure psychologically and they possess a feeling of identity and belonging in their various societies. Durkheim (1917) also developed what he referred to as the theoretical typology of suicide which he used to explain the contradictory effects of social factors that may lead to suicide. Durkheim (1917) identified four types of suicide and the various societal factors responsible for them. The first type is the anomic suicide caused when an individual develops a feeling of

withdrawal or disconnection from his or her society. Social or economic commotions are usually the factors of this anomic suicide and these can usually cause life-threatening changes in the life of a normal individual, thus resulting in suicide. In this situation, “a person might feel so confused and disconnected that such a person would choose to commit suicide” (Shiple, 2015, p. 4).

The second form of suicide was fatalistic suicide which is normally prevalent in cultures where individuals are extremely oppressed and forced to comply with laid down rules and regulation. With this type of suicide, a person takes his/her own life in order to be disentangled from these societal chains and bonds of oppression (Shiple, 2015).

The last type of suicide which is linked to this study was identified by Durkheim (1917) as egoistic suicide. He explained that this type of suicide is quite similar to anomic suicide in that there is a form of disconnection from society. This occurs when there is weakened societal bond or organization makes it uncomfortable to integrate oneself with loved ones. According to this theory, the weakened social bond or organization disintegrates an individual from the larger society, and the end result would be stress and depression. Individuals who are prone to this type of stress and depression will eventually conceive the idea of committing suicide. Durkheim (1917) also reasoned that the more a person is integrated socially, the less likely it will be for such individual to have suicide ideation.

2.3 Related Studies

The awareness of the consequences that stress and burnout have on suicide ideation of workers has led numerous researchers to conduct series of studies around the phenomenon in attempts to unravel the factors that precipitate the adverse consequence of stress and burnout with the hope of reducing suicide ideation. There have also been considerable research works that have formulated

buffer hypotheses and tested how social support ameliorates the consequences of stress and burnout on suicide ideation. The ensuing sections present the related studies on the predicted relationships.

2.3.1 Influence of Stress on Suicide ideation

Positive consequences of stress on suicide ideation have been documented extensively. However, most of the studies have been correlational in nature, making it challenging to infer causation.

Most of the studies have been conducted in the Western world concentrated on students. Takusari, Suzuki, Nakamura, and Otsuka (2010) conducted a study on the correlation between job stress and suicide ideation, using university students. Three thousand two hundred and thirty-three (n=3,233) students representing 52.5% response rate completed the Stress Scale (SS) and the Adolescent Suicide Questionnaire (ASQ). Findings indicated a positive correlation between stress and suicide ideation. That is, students who scored high on stress questionnaire also scored high on suicide ideation. There was no significant impact of demographic factors such as gender, age and educational status on suicide ideation and stress. Though the study provides empirical support on the nexus between stress and suicide ideation, the response rate of 52.5% limits the external validity of the findings.

Another study was conducted by Loerbroks, Cho, Dollard, Zou, Angerer, and Herr (2013) on the nexus between job stress and suicide ideation among workers in China. The study was aimed at investigating whether the symptoms of stress are related to suicide ideation in China, using the meta-analytical design. Four English electronic databases (EBSCO, PubMed, Weipu and Wanfang) were searched to ascertain pertinent studies. Among the 422 primarily recognized references, 132 researchers were selected, including 2,422 responded to the stress symptom scale

and the suicide ideation scale. The findings indicated that the cross-sectional studies review from 2006 to 2016 ascertained positive correlations between symptoms of stress and the tendency to commit suicide. Stress symptoms contributed to 37% of the suicide ideation onset. Marital status was a significant predictor of suicide ideation. However, the gender of participants had no influence on suicide ideation and stress. This study adopted the meta-analytical design which is associated with publication bias in the sense that the outcome of a meta-analysis depends on the studies reviewed (Walker, Kattan & Hernandez, 2008). The present study seeks to address this limitation by adopting the cross-sectional survey.

Cheref, Gadol, Lane, Miranda, and Polanco-Roman (2015) also conducted a study on the nexus between stress symptoms and suicide ideation among young adult. The study adopted a cross-sectional survey. The direct impact of stress on suicide ideation among 1375 young adults (28% men and 72% women) between the ages of 19 – 40 years were assessed using the Stress Inventory and the Suicide ideation Questionnaire. Descriptive statistical techniques such as means and percentages were used for drawing conclusions. Results indicated that 30% and 20% of participants were diagnosed with stress symptoms and suicide ideation respectively. Stress symptoms were found to exist in every person found of having the idea of committing suicide. Based on this, the researchers concluded that job stress and suicide ideation are positively correlated. Polanco-Roman et al. (2013) used the descriptive statistics. Descriptive statistics, however, cannot be a good enough basis to draw conclusions. Causal inferences can therefore not be made. There is, therefore, the need to use inferential statistics, which the present study intends to use.

A study was again conducted by Kleiman, Turner, Chapman, and Nock (2018) to assess the influence of stress on suicide ideation using a longitudinal design. The study also assessed how gender influenced suicide ideation and stress using a stratified random sample of 3,574 high school Korean adolescents. The selected participants were assessed at the end of every semester to verify whether stress and suicide ideation differs based on their level of study. Data analysis was performed using multiple regression. The results revealed that stress and suicide ideation was positively influenced by the individual's level of study. That is, stress was based on the level of academic progression. The participants who experienced a high level of academic stress also experienced suicide ideation. Other factors such as age and gender differences were found to predict stress and suicidal tendencies. The study employed the longitudinal design which is influenced by threats to internal validity such as maturation and history. To control the threat to internal validity, the cross-sectional survey was adopted.

Moreover, Barrett and Boggiano (2011) assessed the association between suicide ideation and stress in Saudi Arabia. The study used a cross-sectional survey that involved 242 participants. Participants responded to stress using Students Stress Scale whilst suicide was assessed using the Suicide Tendency Scale (SUTS). The outcome of the study indicated that, of all participants, 26.4% were stressed whilst 18.6% experienced suicide ideation. A positive relationship was found between suicide ideation and stress. The findings did not indicate differences in suicide ideation and stress between males and females. The study did not also find a significant impact of age and educational status on suicide ideation. Again, the study used only descriptive statistics in analyzing data which does not allow for a conclusion to be drawn.

Also, a study by Ang and Huan (2006) assessed the association existing between stress, depression, and suicidal tendencies among Asians. One thousand one hundred and eight ($n=1,108$) adolescents

consisting of 53% males and 47% females between 12 – 18 years took part in the study. The Stress Scale, Depression Inventory and the Suicide ideation Scale were completed by students. There was a significant correlation between all the variables. Stress was positively related to suicide ideation and depression. Depression also significantly correlated with suicidal tendencies. Stress predicted a higher amount of variance in elucidating suicide ideation as compared to depression. Findings of the study indicated an insignificant difference in suicide ideation based on gender.

Another study was conducted by Valderrama (2016) with the aim of assessing stress on suicide ideations in the US. The study utilized 381 respondents between 17 – 25 years in the university. Respondents completed questionnaires on stress symptoms and suicide ideation. The researcher indicated that stress was a significant predictor of depression. About 36.6% of the impact on suicide ideation was predicted by stress.

In a bid to throw more light on the consequences of stress on students, Arun, Chavan, and Garg (2018) examined how stress influences suicide ideation among students who attended University, using a random sample of 157 students selected from academic achieving students. Suicidal ideas and stress were solicited with the Suicide Risk Inventory and the Stress Checklist. The Pearson correlation was the appropriate statistical methods used in analysing the data. Results revealed that about 50% of academically achieving students reported having high stress and suicidal tendencies. The researchers found that stress positively predicted suicide ideation among the students. They concluded that severe stress results in suicidal tendencies.

It is important to point out that all these studies discussed above were conducted among students. However, students' stress is qualitatively different from employee stress. Moreover, there are developmental differences between college stress and workplace stress.

Documented evidence discovered that stress was positively correlated with suicide ideation among employees (Lee, Byun, Kim, Lee & Kim, 2016). Using the Employee Suicidal Inventory (ESI) and the Stress Symptoms Scale (SSS), the researchers stipulated that workers in the US who had high-stress scores were more likely to be psychologically adjusted and report lower consequences of suicide ideation. One hundred and ninety-five (n=195) formal and informal workers took part in the cross-sectional survey questionnaire and individual interviews. Participants in the study were classified into suicide ideation group and non-suicide ideation group. Participants discovered to have been stressed out during the study, reported higher levels of suicide ideation. There was no different levels of suicide ideation between formal workers and informal workers. Marital status predicted a low level of stress and suicide ideation. One limitation the researchers indicated was that the sample was rather small for generalization of the results.

The observations made by Lee, Byun, Kim, Lee, and Kim (2016), were confirmed in a study by Smith and Wilburn (2011) to assess the influence of stress on health consequences such as depression and suicide ideation of Canadian employees. Participants included 129 Canadian employees above the age of 19 years. The researchers engaged in a periodic interview with the employees for three consecutive times and apparently only 58 participants remained until the study was fully completed. Findings from the study revealed that stress was related to poor health and suicide ideation. Similar to the Lee et al. (2016) study, the Smith and Wilburn (2011) study's limitations included the use of longitudinal design. Though their findings cannot be questioned,

the inability to control other confounding environmental factors and not factoring them into their study makes it a problem in drawing causation.

Choi (2018) also conducted a study on the correlation between stress and suicide ideation of Ethiopian women who were all employees. Six hundred and forty-two (642) women took part in the study. Employees in both the formal and informal sectors took part in the study. The Self reporting Stress Scale and the Suicide ideation Inventory were used to measure stress and suicide ideation respectively. Multivariate logistic regression was used to analyse the data. Findings indicated a positive correlation between suicide ideation and stress. Formal sector employee had significantly higher suicide ideation as compared to the participants in the informal sector.

2.3.2 Impact of Burnout on Suicide ideation

Studies have also assessed the influence of burnout on suicide ideation. A study by Dyrbye, Thomas, Eacker, Harper, and Sloan (2011) assessed the correlation between burnout and suicide ideation among students. The study adopted the cross-sectional design with 4,287 students aged between 12 and 18 years responding to the survey questionnaires. The respondents were recruited through students' clinics. The eight-item burnout scale was used to assess students' burnout. Student's suicide ideation was also measured using Students Suicide ideation Inventory.

Burnout status was divided into two classifications: marginal burnout and severe burnout.

Findings indicated that suicide ideation was reported by 11.2% of students and 24.6% reported burnout within the 12 months while burnout was related to higher suicide ideation. Students who reported marginal burnout scored an average of 10 points lower on the suicide ideation scale than students who reported severe burnout. This empirically demonstrated the association between

burnout and student's suicide ideation but seems to be limited in scope, as it was limited to only students.

The role of burnout in reducing the consequences of suicide ideation was also reiterated in a study by Prins et al. (2010) using a sample of medical students. Questionnaires measuring burnout and suicide ideation were completed by 2115 Dutch medical students. Burnout was measured with the Burnout Questionnaires and suicide ideation was measured with the Suicide ideation Scale. The response rate was 54.5% of which 38.6% were classified as burnout and 20.3% were classified as suicide ideation. Burnout was found to negatively correlate with a problem-focused approach, which increased the consequences of suicide ideation. Thus, coping with burnout will have a positive impact on suicidal thoughts.

Contrary to the findings of a study by Van der Heijden et al. (2006), Khamisa, Peltzer, Ilic, and Oldenburg (2017) found no significant influence of burnout on suicide ideations among medical professional in the US. The study adopted a correlational design with 211 participants who attended 7 medical schools completing questionnaires on burnout and suicide ideation. It must be noted that, in Van der Heijden et al's. (2006) study, stress was found to predict problem-focused approach which reduced the consequences of suicide ideation, whereas, in the Fitzpatrick et al's. (2018) study, the findings revealed that stress did not predict coping strategies and consequences of suicidal tendencies. Additional research is required to comprehend this inconsistency in the literature since stress has been recognized to have significant psychological consequences.

Fountoulakis et al. (2014) evaluated the influence of burnout on suicide ideation among employees in the US. The study also investigated demographic factors influencing burnout and suicide

ideation. Employees selected for the study were 109. Employee's burnout was collected using the Burnout Scale and suicide ideation was also collected using Suicide ideation Scale. Findings of the study indicated no significant influence of employees' sector of work on burnout and suicide ideation. Burnout and suicide ideation were significantly related. Burnout predicated 30.6% of suicide ideation. Demographic factors such as age, sector of work, age and gender did not influence the study.

Ozkan, Karaman, Ozturk, Ahun, and Selmi (2015) conducted a meta-analytical study by reviewing the scientific literature on issues related to burnout and suicide ideation. The researchers predicted that burnout would have a significant influence on mental and suicide ideation. The review assessed the factors that predict burnout and the role of burnout in suicide ideation. Studies were reviewed with burnout, depression and suicide ideation. After 147 studies published in scientific journals, the researchers observed that gender predicted significant differences in the amount of stress and suicide ideation. Burnout was found to have a positive influence on suicide ideation in 145 of the studies reviewed. Only two of the studies indicated an insignificant nexus between burnout and suicide ideation. The finding of a direct positive correlation between burnout and suicide ideation from 145 published articles seems to have answered the question about this relationship being asked in this present study. Marital status was found to significantly predict suicide ideation. However, questions still remain. For example, can the findings obtained from students, in all the 147 articles, be generalized to employees in Ghana?

Some studies have however indicated an insignificant nexus between burnout and suicide ideation. A study was conducted by Fortener (2000) to assess the correlation between burnout and suicide ideation among therapist in India. Data was collected on burnout and suicide ideation of 226 respondents including psychologists and health practitioners. Only data obtained from

46.8% of respondents were used for the analysis. Burnout was measured based on respondents' responses with the Burnout Inventory. Suicide ideation was measured using the occurrence of the frequency of suicidal thoughts. Findings indicated no significant relationship between burnout and suicide ideation. The researchers concluded that high burnout had no significant influence on suicide ideation.

To find out the correlation between burnout and suicide ideation, Piccinini et al. (2012) used employee in Costa Rica. The study was interested in how burnout leads to psychological problems (burnout and depression). One hundred and twenty-nine (n=129) teachers responded to the questionnaire on burnout and suicide ideation. The results revealed that burnout was positively correlated with suicide ideation and depression. It was concluded that burnout significantly leads to suicide ideation.

2.3.3 Relationship between Stress and Burnout

The influence of stress on burnout among employees was also reported in a study by Azeem, Akhtar, Nazir, and Zaidi (2015). This study examined the impact of role stressors and burnout among employees in a private hospital. There were 135 nurses who took part in the study. The Maslach Burnout Scale was used to measure burnout whilst the stress of participants was assessed with the Occupational Suicide ideation Inventory. The results indicated a positive association between stress and burnout among nurses in private hospitals. The dimensions of role stressors were correlated significantly to burnout. Role overload and role ambiguity were significantly correlated to burnout. Though the study by Azeem et al. (2015) answered one of the aims of the study which seeks to assess the impact of stress on burnout, it is yet to be proven whether their findings from the Western country can be applied to employees in Ghana.

A direct study on the influence of stress on burnout was conducted by Khattak, Khan, Ul Haq, Arif and Minhas (2011). The researchers collected survey data from 237 bank employees consisting of 69.2% male and 30.8% female in one urban and six rural cities in the USA to assess how stress results in burnout. To measure stress and burnout, the researchers used the nine-item self-report measure of stress and the eighteen items of burnout. The questionnaire was also used in assessing stress and suicide ideation. The researchers adjusted for socio-demographic factors such as age, education and residential status in their analyses. Even when controlling for the socio-demographic factors, the percentage of employees with burnout was 14.7% and the percentage of stress was 29.4%. There was a significantly positive correlation between the components of stress and the components of suicide ideation. This finding reinforced the evidence of a significant correlation between stress and burnout. However, the problem is the use of percentages in drawing a conclusion. To draw a conclusion, there was a need to subject the percentages to further inferential statistics.

Ng, Ran, and Chan (2010) investigated the correlation between role stress and burnout, surveying 250 urban adults from twelve states. The study was to determine whether role stressors predicted the dimensions of burnout. The Role Stress Scale was used to assess role stressors and the Occupational Burnout Scale was used to measure burnout. Using linear regression, analysis of the data disclosed a bidirectional association between stress and burnout among a sample of urban adults, such that role stress was associated negatively with burnout.

A study by Gandi, Karick, Dagona, and Wai (2011) failed to find a significant impact of stress and burnout. These researchers set out to investigate whether stress act as an antecedent of burnout. Data was gathered from 2, 245 rural inhabitants in the USA through the use of a stratified sampling

technique. A participant's stress was measured using the Organizational Stress Scale and the Burnout Scale was used to measure occupational burnout. Results showed that severe stress correlated insignificantly with burnout. The implication of these findings is that the presence of stress does not have any significant impact on the burnout. As the study was conducted in America and among Americans, there is the need to engage in the empirical review in Ghana, considering the different cultural orientations between America and Africa, and Ghana, to be precise.

Abbas et al. (2012) examined the influence of stress on burnout among 80 workers of a university in Pakistan. The sample consisted of 40% males and a mean age of 45 years. Unlike many other studies regarding this topic, Abbas et al. (2012) adopted the exploratory study with subjects completing role stressor and burnout dimension. Burnout consisted of three dimensions. Data were analysed using percentages. Findings indicated that organizational stress was not significantly positively correlated to burnout. The differences in designs adopted by Ng, Ran and Chan (2010) and Abbas et al. (2012) might have accounted for the contradiction in findings.

2.3.4 Moderating the Relationship between Stress, Burnout and Suicide ideation

Moderating factors attenuates or influences the magnitude of the association between the predictor and the outcome. A moderator limits the effect of the primary stressor on the outcome.

Individuals experience variable effects when exposed to comparable stressors. The variability in the outcome when exposed to similar or comparable stressors is explained by moderators. The moderating factor considered in this study is social support.

Shaheen and Jahan (2017) conducted a study on the role of social support in ameliorating the nexus between stress and suicide ideation. The study involved 200 male and female adolescent students

who were randomly selected for the study. The students consisted of 100 boys and 100 girls who completed the measures. Participants responded to the questionnaires that assessed social support, stress and the suicide ideation. The Pearson Correlation and Simple Mediation analysis were used in analysing the data. The analysis revealed that perceived social support was related to suicide ideation. Stress revealed a negative relationship with suicide ideation. Social support was found to influence the negative relationship between stress and suicide ideation.

Gender was a significant influence on the level of stress and suicide ideation.

Similarly, Trujillo, Benotsch, Tabaac, Sutter, and Perrin (2017) assessed the nexus between social supports, stress and suicide ideation among employees. The study also assessed the ameliorating role of social support in the nexus between stress and suicide ideation. Seventy-eight ($n = 78$) participants were selected using the purposive sampling. Data was conducted using the Social Support Scale, Stress Inventory and the Suicide ideation Scale. The correlation between social support, stress and suicide ideation was measured using the Pearson Correlation. Findings indicated a negative association between stress and suicide ideation. Social support moderated the positive correlation between stress and suicide ideation.

A study was conducted by Kleiman, Schaefer, Weingarden, and Riskind (2015) on the moderating role of social support on the nexus between stress and suicide ideation among adults in Florida. The meta-analytical design was adopted by analysing the research findings of 16 researchers from 500 participants. The analysis of the existing studies revealed a positive significant correlation between stress and suicide ideation. Social support weakened the association between job stresses on suicide ideation. Suicide ideation differed based on age, gender, and educational level. The

finding by Kleiman et al. (2013) is interesting, however, the use of meta-analytic approach which is associated with publication bias can be questioned.

Lim, Lee, Jeon, Yoo, and Jung (2018) assessed the role of social support on the nexus between stress and suicide ideation among employees in Korea. The cross-sectional approach was employed with 124 employees in Korea. Their responses to the questionnaires measured demographic characteristics, social support, stress, and suicide ideation. Participants completed the Stress Scale, Suicide Ideation Scale and the Multidimensional Social Support Scale. The linear regression and simple moderating analysis were used in data analysis. Among the respondents, 39.5% and 15.3% respectively demonstrated clinical levels of stress and suicide ideation. Findings indicated an insignificant association between demographic characteristics such as gender and marital status on suicide ideation. Social support was found to significantly moderate the positive correlation between stress and suicide ideation.

Hyung, Ji-Young, Soon-Jeong, and Harr (2015) assessed the effect of social support ameliorating the effect of the nexus between job stress and suicide ideation among employees in the USA. The meta-analytical review synthesizes some of the studies using keywords such as social support, stress, and suicide ideation. The review examined the possibility that social support will ameliorate the link between stress and suicide ideation. The study reviewed 26 cross-sectional research articles. The finding indicated that the nexus between stress and suicide ideation was moderated by social support.

Lamis, May, Dvorak, and Ballard (2018) investigated the association between stress and suicide ideation in the United States of America. The study also assessed how the relationship between

stress and suicide ideation was influenced by the social support of the family. The study was based on 2,034 college students who completed survey questionnaires on perceived stress, social support and suicide ideation among employees. Structural equation modelling was used in testing the proposed framework investigated. The results revealed that stress had a negative effect on suicide ideation. Subsequently, social support weakened the link between stress and suicide ideation. The results suggest that management should integrate social network support programs to control the perceived stress and augment suicide ideation.

Another study by Miller, Esposito-Smythers, and Leichtweis (2014) also investigated the relative contributions of social support on stress and suicide ideation in a clinical sample of adolescents. Cluster sampling was used to select 143 participants. The Social Support Inventory, Stress Scale, and the Suicide ideation Scale were used for data collection. Social support was measured using three subscales in a Likert form. Instrumental, emotional, and informational support were assessed. The study findings revealed that a significant correlation existed between stress and suicide ideation. Social support (Instrumental, emotional, and informational support) moderated the link between stress and suicide ideation. The researchers concluded that social support reduces that negative effect of stress on suicide ideation.

However, not all studies produced significant results. Faria, Santos, Sargento, and Branco (2019) conducted a study to assess the moderating role of social support on the link between stress and suicide ideation among Chinese students. The researchers selected 149 students who were in their final year in China for the study. The study assessed the social support of friends in the same class as the respondents. Participants were asked to report their feelings on social support, perceived stress and suicide ideation. Data were analysed using the structural equation model. Results of the

study revealed that stress was related to suicide ideation among respondents. Social support was found to be positively correlated with suicide ideation. However, perceived stress and suicide ideation were not moderated by social support. It must be reiterated that Faria, Santos, Sargento, and Branco (2019) assessed social support from friends. However, the lack of social support from family constitutes an imperative factor for attenuating stress and suicide ideation.

With burnout considered as an outcome of stressor, other studies have shown how social support moderates that association between burnout and suicide ideation. Carter, Allred, Tucker, Simpson, Shipherd, and Lehavot (2018) conducted a study by assessing the role of burnout and suicide ideation in the USA, Australia, and Hong Kong. The study also assessed the ameliorating role of social support on the relationship between the variables. Two hundred and ninety-eight ($n = 298$) participants responded to the study. Participants responded to questionnaires measuring perceived burnout, suicide ideation, and social support. Results indicated that participants who scored high on the burnout scale also scored low on suicide ideation. Social support served as a protective factor by helping to reduce perceived burnout and increased suicide ideation.

A similar finding was evident in the longitudinal study of Gonçalves, Sequeirab, Duarte, and Freitasc (2014), who indicated that social support attenuates the negative consequences of burnout among employees in the United States of America. Three hundred and seventy-two (372) respondents started with the study which lasted for six years. Only one hundred and twelve (112) respondents completed the study. Results indicated that participants with perceived social support reported lower consequences of burnout. Gonçalves, Sequeirab, Duarte, and Freitasc (2014) argued that the ability of people to perceive social support attenuate the effect of life burnout on

suicide ideation. Additionally, social support was more probable to employ adaptive coping styles to deal with burnout and have a reduced likelihood of experiencing psychological disorders such as burnout, depression, and anxiety (Gonçalves et al., 2014). Though the longitudinal nature of Gonçalves et al.'s. (2014) study provided an opportunity for inferring causation, the high attrition rate makes it difficult to generalize the findings.

Lamis, Ballard, May, and Dvorak (2016) investigated whether social support moderates the association between burnout and suicide ideation. The correlational survey involved 136 college students. The respondents completed questionnaires measuring burnout, social support, and suicide ideation. Data analysis was conducted using regression analysis. The results indicated that social support moderates the nexus that exists between burnout and suicide ideation.

The role of social support in reducing the consequences of life burnout was also reiterated in a study by Yu-Hang, Zhou-Ting, and Qian-Ying (2017) using students in China. This study examined social support as the moderator of the association between burnout and suicide ideation among university students. Questionnaires measuring social support and burnout and suicide ideation were completed by 632 students. The results showed that about 10% of the 606 participants experienced a high level of burnout. About 12% were clinically stressful. Hierarchical regression revealed that the relationship between burnout and suicide ideation was moderated by social support. Thus the negative consequence of burnout on suicide ideation was lower when the level of social support was high.

However, a longitudinal study was conducted by Wang et al. (2014) to evaluate the influence of social support on the nexus between burnout and suicide ideation among retirees in the United

States of America. The study also investigated demographic factors influencing burnout and suicide ideation. A total sample of 118 participants were selected for the study. Findings of the study indicated that burnout prevalence was 15.05% and suicide ideation was 12.6%. Perceived burnout was found to be a strong predictor of suicide ideation. The association between burnout and suicide ideation was not moderated by social support.

2.4 The Rationale for the Study

With the amount of pressure emanating from organisations, it does not come as a surprise that employees fall victims to suicide ideations. In response to the increased rate of suicide among the employees, an extensive literature on the predictors of suicidal tendencies in the western world have emerged (Yu-Hang, Zhou-Ting & Qian-Ying, 2017). However, far less has been done on the impact of stress and burnout on suicide ideation among employees despite the high workload leading to stress and burnout among employees.

Studies in Africa in general and Ghana in particular are few. Moreover, current literature addressing the link between stress, burnout and suicide ideation in Ghana focused on only students (Hovey, 2009; Shaheen & Jahan, 2017). In addition, scholars are yet to identify a clear link between stress, burnout and suicide ideation since findings have been contradictory. Also, studies (Carter et al., 2018; Takeuchi & Nakao, 2013) investigating the suicidal tendencies have dwelled on formal workers.

Furthermore, despite the significant influence of stress and burnout on suicide ideation, to date, only a handful of studies have focused on the ameliorating role of social support in the association between stress and suicide ideation in Africa. This is startling, given that social support has often

been lamented as the significant coping pattern among Africans (Gandi et al., 2011). There is also a paucity of studies examining social support as the moderating factors in the relationship between burnout and suicide ideation. This study aimed to address this significant yet relatively unstudied issue by assessing social support as a link between stress, burnout and suicide ideation in Ghana.

2.5 Statement of Hypotheses

On the basis of the literature reviewed, the study tested the beneath hypotheses.

- There will be a positive correlation between organizational stress and employees' suicide ideation.
- There will be a positive relationship between organizational stress and employees' burnout.
- There will be a positive relationship between organizational burnout and employees' suicide ideation.
- Social support will moderate the relationship between stress and suicide ideation
- The relationship between employee burnout and suicide ideation will be moderated by social support.
- There will be a significant difference between employees' suicide ideation, burnout, and stress in the formal and informal sector.
- Some demographic characteristics will significantly predict suicide ideation, stress, and burnout

2.6 Hypothetical framework

The proposed conceptual model indicates that job stress and burnout are both related to suicide ideation. Moreover, these relationships are predicted to be moderated by social support. Some

demographic characteristics such as gender, education, marital status, age and sector of work were proposed to be significantly related to suicide ideation, stress, and burnout.

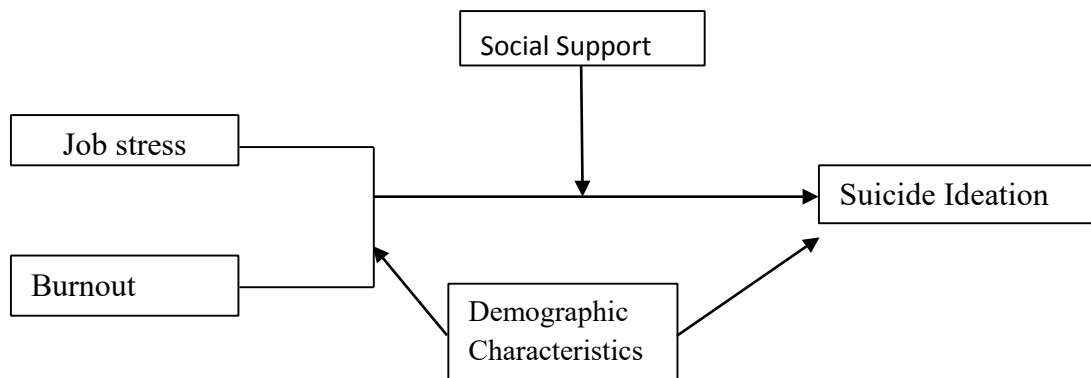


Figure 1 *A hypothesized model of the relationship between the variables*

2.7 Chapter Summary

This chapter emphasized some of the empirical research that has been conducted in the field of stress, burnout, and suicide ideation. The chapter also assessed the ameliorating factor (social support) of the nexus between the underlying variables. An analysis of the literature discovered that these constructs might be associated. The numerous studies discussed thus far largely focused on students (for example, Reid, 1999), thus neglecting employees who exhibit a higher amount of job stress and burnout (Dagget, Molla, & Belachew, 2016; Mauno, Ruokolainen, Kinnunen, & De Bloom, 2016).

Essential theoretical frameworks including the Cognitive Behavioural Theorists, Interpersonal Psychological Theory and the Sociological Theories on suicide were also evaluated. On the basis of the literature reviewed, seven hypotheses were stated as well as a proposed conceptual model (hypothetical model) indicating the relationship among the variables of the study.

The next chapter discusses the methodology and design used in collecting the data for the study.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This study investigated the influence of stress and burnout on suicide ideation among employees in Accra. The study also assessed whether social support moderates the underlying relationship. This chapter presents the plan of how the study was conducted to achieve the stated research objectives. A detailed clarification of the methods and procedures followed in achieving the most valid results are presented. It contains the paradigm, design of the study, sources of data, population and the sampling technique. A detailed description of the instruments and the procedure for data collection are also discussed. The ethical considerations are described, together with the statistical tests used in analyzing the data gathered.

3.2 Research Paradigm

As defined by Quinton and Smallbone (2006), “a paradigm is a way of describing a world view that is informed by philosophical assumptions about the nature of social reality, ethics and value systems” (p. 26). Fundamental questions, methods to follow and appropriate approaches are determined by paradigms. Paradigms give the direction and implementation of research (Quinton & Smallbone, 2006). Positivism also employs quantitative methods to gather observable data from respondents. The positivist paradigm is based on techniques used in the natural sciences. The study was based on the positivist paradigm since the objective of the study determines the paradigm which informs the use of the paradigm. This paradigm was appropriate since questionnaires were used in gathering objective quantitative data from participants.

3.3 Research Design and Approach

Bearing the aim of the study in mind, which is to assess the moderating role of social support in the relationship between organizational stress, burnout, and suicide ideation, the study employed the quantitative research method, by using a survey. Surveys are appropriate for descriptive, explanatory and exploratory purposes and are mostly used in studies that have the individual as the unit of analysis (Mahembe, 2013).

The cross-sectional was the specific design used. Cross-sectional survey design “captures an individual’s own attitudes, behaviours and experiences as reported by themselves” (Mahembe, 2013, p. 12). The cross-sectional survey adopted is considered as the most efficient way of data collection and it also stands out as the quantitative approach frequently used for data collection in survey research. The cross-sectional survey involves presenting similar questions to a group of participants in the same or similar way and the responses of participants recorded in an orderly and systematic manner to facilitate the analysis of data (Mahembe, 2013).

The cross-sectional design was used as employees’ organizational related attitude and behaviour were assessed at a stipulated time period and carefully analyze (Mahembe, 2013). This design was adopted because it is cost-effective. It also allows establishing relationships between many variables and for making additional comparisons between subgroups. The time dimension is cross-sectional as a large amount of data on organizational attitudes and behaviours of employees were collected within a relatively short time.

3.4 Target Population

Deciding on the population is important in achieving reliable and valid results. According to

Mahembe (2013), the population is considered as “a set of people who are the focus of the research and about whom the researcher wants to investigate certain constructs or features” (p. 19). The population for this research consisted of formal and informal sectors in Madina, the capital town the La Nkwantanang Madina Municipality of the Greater Accra Region of Ghana. According to the Population Housing Census (2000), Madina has a total population of 76,697 with 35,915 being economically active. In addition, Madina has a vibrant market and is home to lots of banking institutions. The area is also chosen because it is a vibrant business hub with a wide variety of employees found in the informal outlets of the Greater Accra Region of Ghana. The population for this study comprised of employees in the banking sector which represents the formal sector on one hand and traders which also represents the informal sector on the other hand.

The banks selected for the study included the ADB, Barclays Bank, National Invested Bank, Ecobank, and Access Bank. Traders working in Madina market comprised the informal employees who were selected for the study. The basis for selecting employees in the formal and informal sectors was because of the high level of stress leading to suicide ideation among the employees.

3.5 Sampling

A sample is a representative subset of the general population selected for the study. Sample size determination is very important in research work because of economic and ethical reasons. As Russell (2009) explained, an under-sized sample study exposes the participants to feasibly detrimental treatments without contributing to research knowledge, with no such effect on an over-sized sample. This makes it important to always ensure that the sample is not undersized. To determine the representativeness of the sample, the study adopted the formula for sample size

selection proposed by Mugenda and Mugenda (1999). Mugenda and Mugenda's (1999) formula for sample size selection is given as:

$$n = \frac{NC^2}{C^2 + (N - 1)e^2}$$

Where, n = sample size, N = size of the population, C = coefficient of variation ($\leq 50\%$), and e = error margin.

The population is the total number of people from which the sample is selected. The error margin deals with the extent of erroneousness that is permitted. The coefficient of variation is the amount of ambiguity and reservation that can be endured.

The population size consisted of 4400 employees. The margin of error considered in the study is 5% with a coefficient of variation of 0.05 (50%). Bearing these parameters in mind, the figures are computed into the formula as follows:

$$n = \frac{5500 * (0.5)^2}{(0.5)^2 + (5500 - 1) * (0.05)^2}$$

$$n = 200.136$$

$$n \approx 200$$

The sample size was therefore expected to be 200 respondents. To cater for the nonresponse rate, three hundred and fifty (n=350) respondents were targeted for the study.

3.6 Methods of Sampling

As defined by Polit and Beck (2006), "sampling technique is the procedure of choosing a collection of subjects for a study in such a way that the persons represent the larger group from which they were chosen" (p. 12). Sampling procedures can be classified into the non-probability and the probability sampling. The probability sampling procedure is mostly preferred when the sampling

frame is available whilst the non-probability sampling procedure is appropriate when the sampling frame is unavailable (Mitra, 2012). Even though the most preferred sampling procedure to use in order to offer a greater probability of generalizing the research findings is probability sampling, in practice, getting probability samples are demanding and also costly.

Base on this, most researchers depend on non-probability sampling procedure (Mahembe, 2013). Non-probability sampling is applied in a situation where it is extremely difficult to rely on the probability sampling procedure (Mahembe, 2013).

The selection of the participants was done using a convenient sampling technique. This is because participants were selected based on availability and convenience. This type of sampling technique provided a general simplicity and ease of the entire research process. It also facilitated data collection within a very short period of time and was relatively cheaper compared to other sampling methods.

3.7 Participants' Demographics

Three hundred and fifty (n=350) questionnaires were distributed and three hundred and thirtyeight (n=338) were retrieved given a response rate of 96.6%. The demographic analysis revealed that the number of females (58.6%) was higher than the number of males (41.4%). The marriage participants (52.1%) were higher than the participants who were not marriage (47.9%). Also, 15.4% of the participants were at most 20 years; with 22.8% between 21 – 30 years, 25.2% between 31 – 40 years and 26.6% above 41 years. Most of them (72.8%) were Christians and the remaining (27.2%) were Muslims.

With regard to their educational level, 20.4% were literates, 30.8% were either Basic Education

Certificate Examination (BECE) or the West African Senior School Certificate Examination (WASSCE) graduates. Furthermore, 18.3% were holders of either a diploma or professional certificates; 23.7% held degree certificates and 5.3% held postgraduate certificates. Table 3.1 below demonstrates the descriptive statistics of the demographic characteristics.

Table 3. 1: *Demographic characteristics of the participants*

| Variable | Frequency | Percent |
|--------------------------------|------------------|----------------|
| Sex | | |
| □ Male | 140 | 41.4 |
| □ Female | 198 | 58.6 |
| Marital Background | | |
| □ Marriage | 176 | 52.1 |
| □ Single | 162 | 47.9 |
| Age | | |
| □ At least 20 years | 52 | 15.4 |
| □ 21-30 years | 77 | 22.8 |
| □ 31-40 years | 119 | 35.2 |
| □ 41 years and above | 90 | 26.6 |
| Educational Achievement | | |
| □ Literate | 69 | 20.4 |
| □ BCE/WASSCE | 104 | 30.8 |
| □ Diploma/Professional | 67 | 19.8 |
| □ Degree | 80 | 23.7 |
| □ Postgraduate | 18 | 5.3 |

3.8 Data Collection Instrument

The primary source of data was gathered through the use of questionnaires. The questions for this study were categorized into five sections. The first section sought information regarding the respondent's demographic characteristics and basic work information. The second section measured stress using the Stress Scale (Parker & DeCotiis, 1983). The third section measured

organizational burnout using the Maslach Burnout Inventory (Schaufeli & Enzmann, 1998). The fourth section measured suicide ideation using Pansi Suicide Ideation (PANSI, Osman, 1998) and the last section measured social support using the Perceived Social Support (Zimet et al, 1988). The scales used are outlined below.

3.8.1 Demographic Factors

In this section, questions were asked that provided overall data about participants. These questions dealt with aspects such as gender, educational status, sector of work, age, marital status, and religion.

3.8.2 Stress Scale (JSS; Parker & DeCotiis, 1983)

The Stress Scale (Parker & DeCotiis, 1983) was used to measure the respondents' level of job stress. The original Job Stress Scale (JSS) is made up of 10 items with each having two responses. However, Anim-Darfour (2014) altered the scale of the responses from true/false to an interval scale that enabled the respondents to have a wider range of responses to choose from rather than being restricted to only two responses. Hence, the altered responses measuring employees' perceived stress on a 5-point Likert scale ranging from (1) "strongly disagree", (2) "disagree", (3) "no idea", (4) "agree" and (5) "strongly agree" was used. Out of the 14 items forming the JSS, nine measured stress emanating from job overload and the other 4 items measured role conflict. The job stress scale displays Cronbach Alpha of .81 (Spector, 1988). Anim-Darfour (2014) found the scale to be valid with an alpha coefficient of .84 in the Ghanaian context.

Scores were awarded for each item based on the 5-point Likert scale. Each respondent's total scores ranged from 13 to 65 for the entire perceived stress scale with higher scores reflecting a higher level of stress.

3.8.3 Maslach Burnout Inventory (Schaufeli & Enzmann, 1998)

The Maslach Burnout Inventory (MBI) by Schaufeli and Enzmann (1998) was used in measuring burnout. The MBI is a 16-item burnout scale that measures an individual's level of burnout. The results of a study conducted in many different countries such as Philippines, Ghana, Burkina Faso, and Bolivia specified that the Maslach Burnout Inventory is valid and reliable with a Cronbach Alpha Value of .83 and can be applied efficiently to different contexts across developed and developing nations (Schaufeli & Enzmann, 1998). The Maslach Burnout Inventory has three subscales measuring depersonalization, emotional exhaustion, and low personal accomplishment. Test of convergent validity has a Cronbach Alpha Value of .88.

The scale measures burnout as a continuous variable with each respondent allotted a composite score indicating the severity of burnout based on the collective responses of the sixteen items. Since there are sixteen items on the scale, scores ranging from 17 to 102 are awarded. Higher scores on the MBI indicate severe levels of burnout by the employee.

3.8.4 Positive and Negative Suicide Ideation Inventory (PANSI; Osman, 1998),

The dependent variable in this study was suicide ideation. The Pansi Suicide Ideation Scale consisting of 14 items using a 5-point Likert Frequency Rating Scale is valid and reliable with a Cronbach Alpha of .93 – .84. In the Ghanaian sector, the scale was found to have a Cronbach Alpha of .82. The PANSI scale was used to measure the suicide ideation of employees of both

formal and informal sectors. PANSI is a hypothetically grounded scale that explicitly focuses on assessing suicide ideation as unitary.

Respondents rate each statement of the scale on five response options, with one signifying strong disagreement and 5 signifying strong agreement. Each item of the PANSI scale was scored from 1 – 5 based on the response options. The total score for each respondent ranged from 14 to 90 with higher scores representing a higher level of suicide ideation.

3.8.5 Social Support

Respondents' social support was measured using the Perceived Support Scale (PSS) developed by Zimet, Dahlem, Zimet and Farley (1988). The PSS is an endorsed 12-item questionnaire developed to measure perceptions about the support received from friends, siblings and the entire family. Respondents respond to the PSS using a 5-point response options. The 5-point response options “ranged from strongly agree (5) to ‘strongly disagree (1)”. Zimet et al. (1988) reported a Cronbach Alpha of .79 for the PSS. Some of the items in the scale include: “There is a special person who is around when I am in need,” “There is a special person with whom I can share my joys and sorrows” etc. (Bioh, 2015, p. 149). The scale has a Cronbach Alpha of .89. The Social Support Scale is scored from 1 to 5. Since there are 12 items on the scale, scores ranging from 15 to 60 were awarded.

3.9 Procedure

The preceding sections elaborate on the procedure followed in gathering data. These sections elucidate how data was collected for the study, by referring to the pilot study and the process for gathering data and safeguarding ethical practice.

3.9.1 Pilot Testing (Pre-test)

To ensure the quality of the study, the researcher conducted a pilot study. A pilot study is an aspect of a preliminary analysis where the measures of the study are verified with individuals who are comparable to the real study respondents (Bertram & Christiansen, 2014). Pilot testing aims at identifying possible gaps in the measures used, determining practical issues in their usage, and recommending possible changes before the actual data collection (Bertram & Christiansen, 2014). As indicated by Bertram and Christiansen (2014), piloting helps the researcher to change ambiguous items in the questions before they are used for the main research.

Pre-testing the study questionnaires was done through a pilot study involving 25 bankers and 25 traders at the market in March 2019. This was to determine whether respondents could easily understand and respond to the questionnaire and whether the questions measured the exact variables that they were developed to measure. It took a participant approximately 35 minutes on average to complete a questionnaire.

The analysis of the data for the pilot study indicate good reliability of $\alpha = .85$ for the whole scale. Reliability coefficients of the subscales ranged from .72 to .91 (stress had .84, burnout has .72, suicide ideation has .89 and social support had .92) (Table 2). Through the piloting, a few negligible changes were made to the final questionnaire used for the study. For instance, it was noted from the pilot study that some of the respondents did not understand some of the terms in the questionnaires. It therefore became necessary to reword these problematic items in the questionnaire for clarity and for the appropriate response. For example, the word 'here' was introduced in the question, "*Working makes it hard to spend enough time with my family.*" In the main study, this question now reads as, "*Working here makes it hard to spend enough time with my family.*" Table 3.2 below illustrates the reliability of the scales in the pilot study.

Table 3. 2 *Reliability of the scales in the pilot study*

| Variable | Number of Items | Reliability |
|-------------------------|------------------------|--------------------|
| Stress | 13 | .84 |
| Pansi | 16 | .72 |
| Suicide ideation | 14 | .89 |
| Social support | 12 | .92 |

3.9.2 Main Study

This section elucidates how data was collected for the study. Researchers are open to different approaches of questionnaire administration. Questionnaires can be administered through self administration, internet, postal mail, or telephone interviews (Shaughnessy & Zechmeister, 1997). Whatever approach is chosen places a burden on the researcher who bears the costs of distributing the questionnaires to the respondents. The questionnaires in this study were administered to the respondents using self-administration.

Before the data gathering process, the researcher contacted the management of the banks selected. A letter of request, together with an abridged version of the research proposal was sent to the selected branches. The management of the banks selected granted permission for the study. Contact persons from the three branches were designated to act as intermediaries between the researcher and the respondents whenever the researcher visited the organizations for data collection. The participants were first given the consent to approve their participation.

The employees who granted permission were given consent forms to sign, indicating their approval to take part in the study. The researcher then administered the questionnaires to the respondents

who agreed to take part in the study independently. The administration of the questionnaires was done by the researcher with the help of a research assistants who were the contact persons from the three banks. Once all the questionnaires had been completed by the respondents in one branch, the researcher moved to the other branch. Data collection in the banks took approximately three weeks.

From the banks, the researcher moved to the Madina market. Data collection at the Madina market took a different turn as compared to the banks. During data collection, participants were politely approached and the purpose of the research was verbally explained. Those who were interested were given the questionnaires and asked to first read the consent form and sign it, should they wish to partake in the study. Participants who were not willing to participate after reading the consent form were asked not to sign it. The questions were read to those who could not read for them to indicate their responses. It took approximately three weeks for data to be collected from participants in the market. Data collected was subsequently entered into the SPSS for analysis.

3.10 Ethical Consideration

In conducting this research, ethical clearance was obtained from the Research Ethics Committee of the University of Ghana. The questionnaire used for data collection outlined the purpose of study and instructions on how to answer the question were clearly spelt out.

The American Psychological Association (APA, 2012) ethical principles guided the present study. The following ethical concerns were met to ensure absolute adherence to ethical guidelines and procedures.

3.10.1 Informed Consent

The researcher explained the purpose and the threats associated with taking part in the study to the respondents. To actually indicate their consent, participants were made to read and sign the consent form. All respondents consented to take part in the study before completing the questionnaires. The consent was also read to some of the potential participants.

3.10.2 Confidentiality

Respondents were also assured of confidentiality and anonymity; that at no instance would their name(s) be required. A conscious effort was made not to ask participants about their names to make them feel at ease in the data collection process. The researcher provided each respondents with the questionnaire individually in order to ensure confidentiality.

3.10.3 Freedom of Participation

All participants were allowed to opt-out whenever they felt uncomfortable or developed unexpected problems in the course of the study. Any grievances raised by the respondents about the process of data collection were explained to the best of the researcher's ability and to the satisfaction of the respondents. This informed the participants to either continue in the study or not.

3.10.4 Benevolence and Non-Maleficence

The researcher did not employ any possible risk in achieving the objectives of the research. This is to say that the researcher disclosed the aims and objectives of the study and discussed all material risks with the participants. There was nothing beyond minimal risk aside from the duration (45 minutes) spent in the study.

3.10.5 Debriefing

Because the consent form process could not detect all plausible risks, participants who develop unexpected problems in the course of the study were informed to contact the researcher with immediate effect.

3.11. Chapter Summary:

This chapter discussed the methodology and design which was used in collecting data for the study. A detailed clarification of the methods and procedures followed in reaching the most valid outcomes were presented. The paradigm, design of the study, sources of data, population and the sampling techniques used was also discussed in this chapter. A detailed description of the instruments together with the statistical tests used in analyzing the data gathered was discussed correspondingly in this chapter.

The next chapter provides a detailed analyses of the results which was attained at end of the study as well the outcomes of the various stated hypotheses of the study.

CHAPTER FOUR

RESULTS

4.1 Introduction

This study aimed at assessing the association between stress, burnout, and employee's suicide ideation. The mediating role of social support on the association between the underlying variables was also assessed. Seven hypotheses were stated and tested using version 20.0 of the SPSS. The analysis of data was performed in two main stages. The first stage consisted of the preliminary analysis (description of data) and the second stage involved testing the stated hypotheses.

4.2 Preliminary Analyses

The preliminary analysis consisted of four phases. The first phase presents a descriptive analysis of the demographic characteristics (see Table 3.1). The second phase consisted of the description of the dependent and the independent variables (Table 4.1). The normality of the distribution data including the skewness and kurtosis of the scales used in measuring the underlying variables was also presented as can be seen in Table 4.1 below. The reliability and the correlations of the analysis are reported in Table 4.2.

4.2.1 Assessing the Normality of the Variables and Reliability of the Scales

In checking for the normality distribution of the data, the skewness and kurtosis were conducted. As indicated by Tabachnick and Fidell (2001), a variable is normally distributed when the value of kurtosis and skewness ranges between -1 and +1. The findings of the analysis revealed that all the study variables (i.e. stress, burnout, social support, and suicide ideation) were normally distributed.

The Cronbach Alpha Values of the scales ranged from .72 – .92. Since all the alpha values were above the threshold of .70, all the scales were considered satisfactory for psychometric analysis (Mahembe, 2013). (See Table 4.1).

Table 4. 1 *Descriptive statistics and Reliability indices of variables (N = 338)*

| | Min | Maxi | Mean | Std. Dev | Skewness | Kurtosis | Cronbach |
|------------------|-------|--------|-------|----------|----------|----------|----------|
| Stress | 25.00 | 63.00 | 41.22 | 9.64 | .28 | -.89 | .87 |
| Burnout | 33.00 | 107.00 | 67.04 | 14.46 | .11 | -.25 | .79 |
| Support | 13.00 | 63.00 | 37.57 | 11.20 | .06 | -.05 | .92 |
| Suicide ideation | 17.00 | 67.00 | 38.16 | 8.88 | .73 | -.49 | ,90 |

4.2.2 Correlation Matrix

The summary results of the correlations among all the underlying latent variables were computed and the results are presented in Table 3. The analyses revealed that the inter-correlation between all the underlying variables were positive and significant. Among the underlying variables, the correlation between social support and suicide ideation was the highest ($r = .473$), whereas the association between stress and suicide ideation was the least ($r = .261$). In all, all the correlations indicated high and positive relationships among the variables.

Table 4. 2 *Correlation and reliabilities among the variables*

| | 1 | 2 | 3 | 4 |
|---------------------|---------|---------|---------|---|
| 1. Stress | - | | | |
| 2. Burnout | .594** | - | | |
| 3. Support | -.467** | -.388** | - | |
| 4. Suicide ideation | .538** | .344** | -.603** | - |

**p<.01

4.3 Hypotheses Testing

The main statistical tests used to test the hypotheses were the Pearson Product Moment Correlation Coefficient (Pearson r), the Hierarchical Regression Analysis for the moderation and the independent t-test. These tests were used because of the interest of the study in determining the direction and strength of possible associations between the variables and testing the explanatory role of power of each of the dimensions of the independent variables in predicting the dependent variable (suicide ideation).

4.3.1 Test of Hypothesis 1

In hypothesis 1, it was predicted that there will be a positive relationship between organizational stress, and employees' suicide ideation. In order to test this prediction, the Pearson Product Moment Correlation test was used because the intention was to test the strength and direction of a relationship.

As obtained in Table 3, the results indicated that there was a positive significant correlation between stress ($M = 41.22$, $SD = 9.64$) and employee suicide ideation ($M = 38.16$, $SD = 8.88$), ($r = .538$, $p < .01$) (refer to Table 4.1 for means and standard deviations).

From the direction of the relationship, it is demonstrated that the higher the employees work poses stress, the higher their suicide ideation. This shows that the prediction that, there will be a positive relationship between organizational stress and employees' suicide ideation as stated in hypothesis 1 was supported.

4.3.2 Test of Hypothesis 2

The extrapolation made in hypothesis 2 was that there will be a positive relationship between organizational stress, and employees' burnout. This prediction was also analyzed using the Pearson Product Moment Correlation Coefficient since the intention again was to find out the strength and direction of a relationship.

In Table 3, the results indicate that there was a significant positive relationship between organizational stress ($M = 41.22$, $SD = 9.64$) and employee burnout ($M = 67.04$, $SD = 14.46$), ($r = .594$, $p < .01$) (refer to Table 4.1 for means and standard deviations). Thus, there was a significant relationship between organizational stress and employees' burnout. From the direction of the relationship, it was demonstrated that organizational stress is associated with a positive relationship between stress and employees' burnout. This shows that the prediction that, there will be a positive relationship between organizational stress and employees' burnout as indicated in hypothesis 2 was supported.

4.3.3 Test of Hypothesis 3

Hypothesis 3 portended that there will be a positive relationship between organizational burnout and employees' suicide ideation. This prediction was analyzed using the Pearson Product Moment Correlation Coefficient since the researcher intended to also test the strength and direction of a relationship.

As indicated in Table 3, there was a significant positive association between organizational burnout ($M = 67.04$, $SD = 14.46$) and suicide ideation ($M = 38.16$, $SD = 8.883$), ($r = .344$, $p < .01$) (refer to Table 2 for means and standard deviations). This means that, organizational burnout, indeed, had a significant effect on the suicide ideation on participants.

Assessing the direction of the relationship, it was demonstrated that the higher organizational burnout, the higher suicide ideation among the employees. This shows that the prediction that there will be a positive relationship between organizational burnout and employees' suicide ideation as indicated in hypothesis 3 was supported.

4.3.4 Testing the Moderation

The fourth and fifth objectives investigated whether social support moderates the association between organizational stress and suicide ideation and the relation between employee burnout and suicide ideation. It was therefore presaged that, social support will moderate the relationship between stress and employee burnout and social support will moderate the association between stress and suicide ideation.

To test hypotheses 6 and 7, the procedures proposed by Baron and Kenny (1986) for assessing moderation role was used. As indicated by Baron and Kenny (1986), “a common framework for illustrating the moderating effect from both correlational and experimental perspectives is possible using the Causal Path Analysis”. The Causal Path Analysis illustrated by the three steps is illustrated in diagram 1. This involves the effect of the IV (employee stress or burnout) on the DV (suicide ideation) (path a), the moderating effect (social support) on the DV (suicide ideation) (path b), and the role of the interaction of the IV and Moderator on the DV (path c). If the interaction term of IV and the moderator (path c) is significant, then the moderating hypothesis is supported (Baron & Kenny, 1986). In conducting the moderating term, the independent and the moderating variables were centered. This helped to reduce multicollinearity (Aiken & West, 1991). The centering was done by subtracting from the individual scores of the variables, the mean value of the variable.

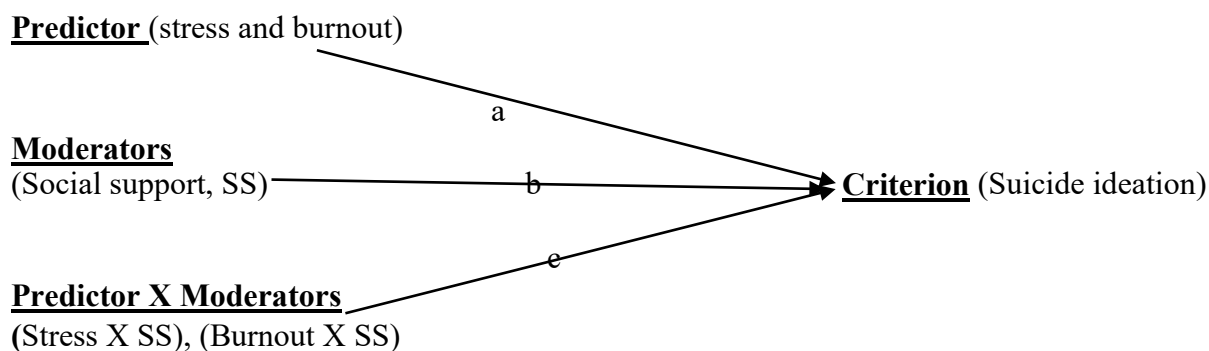


Figure 2 *Causal path analysis*

4.3.5 Test of Hypothesis 4

The fourth prediction presaged that social support will moderate the relationship between stress and suicide ideation. The results can be found in hypothesis 4.3.

Table 4. 3 *Social support moderates the relationship between stress and suicidal support*

| Steps | Beta | T | R ² | ΔR^2 | F | P |
|------------------|-------|--------|----------------|--------------|---------|------|
| Step 1 Stress | .538 | 11.712 | .290 | .290 | 137.167 | .000 |
| Step 2 Stress | .328 | 7.152 | .290 | .290 | | .000 |
| Support | -.450 | -9.811 | .449 | .159 | 136.158 | .000 |
| Step 3 Stress | 1.054 | 7.868 | .290 | .290 | | .000 |
| Support | .517 | 2.966 | .449 | .159 | | .003 |
| Stress * Support | -.925 | -5.734 | .498 | .049 | 110.368 | .000 |

Table 4.3 demonstrates that job stress and organizational support significantly predicted suicide ideation ($\beta = 0.538, p < 0.01$) ($\beta = -0.450, p < 0.01$), respectively. Interaction of organizational stress and social support (step 3) had a significant impact on suicide ideation, adding 4.9% of the elucidated variance ($\Delta R^2 = 0.049$). Hence, social support moderated the relationship between stress and suicide ideation. This supports the fourth prediction that predicted that social support will moderate the association between stress and suicide ideation.

4.3.6 Test of Hypothesis 5

The relationship between employee burnout and suicide ideation will be moderated by social support. The results can be found in table 4.4.

Table 4. 4 *Social support moderates the nexus between burnout and suicide ideation*

| | Beta | T | R ² | ΔR^2 | F | p |
|-------------------|-------|---------|----------------|--------------|---------|------|
| Step 1 (Constant) | | | | | | |
| Burnout | .344 | 6.716 | .118 | .118 | 45.107 | .000 |
| Step 2 (Constant) | | | | | | |
| Burnout | .130 | 2.772 | .118 | .118 | | .006 |
| Support | -.553 | -11.839 | .378 | .260 | 101.972 | .000 |
| Step 3 | | | | | | |
| Burnout | .413 | 2.693 | .118 | .118 | | .007 |
| Support | -.171 | -.847 | .378 | .260 | | .398 |
| Burnout* Stress | -.386 | -1.940 | -.390 | .012 | 67.797 | .043 |

Table 4.4 also demonstrated that, burnout and social support significantly predicted suicide ideation ($\beta = .344, p < .01$) ($\beta = .344, p < .01$), respectively. The interaction terms burnout and social support (step 3) significantly predicted suicide ideation ($\beta = -.386, p < .01$), adding 1.2% of the elucidated variance ($\Delta R^2 = .012$). This means social support does moderate the nexus between employee burnout and suicide ideation. This supports the fifth hypothesis which assumed that the nexus between employee burnout and suicide ideation will be moderated by social support.

4.3.7 Test of Hypothesis 6

As predicted by the hypothesis 6, there will be a significant difference between employees' suicide ideation, stress and burnout in the formal and informal sectors. This hypothesis intended to assess the differences between formal and informal sectors in suicide ideation. With one independent variable and three dependent variables (suicide ideation, stress, and burnout), the multivariate analysis of variance was used (Table 4.5).

Table 4. 5 Sector (formal and informal) differences on suicide ideation, stress, and burnout

| Variable | Formal Sector <i>n</i> =172 | Informal Sector <i>n</i> =166 | <i>F</i> | <i>df</i> | <i>p</i> |
|------------------|--------------------------------|----------------------------------|----------|-----------|----------|
| | Mean (SD) | Mean (SD) | | | |
| Suicide ideation | 37.51 (7.68) | 38.83 (9.98) | -1.360 | (1, 336) | .375 |
| Stress | 39.44 (8.85) | 36.91 (8.77) | 2.103 | (1, 336) | .095 |
| Burnout | 37.70 (7.76) | 38.62 (8.89) | -1.204 | (1, 336) | .282 |

> .05

The findings from Table 4.3 revealed no significant sector of work in suicide ideation ($F_{(1, 336)} = 1.360, p > .05$) This means that the level of suicide ideation of formal sector employees ($M=37.51, SD=7.68$) was not significantly different from the level of suicide ideation of informal sectors employees ($M=38.83, SD=9.98$).

There was also no significant difference in stress level ($F_{(1, 336)} = 2.103, p > .05$) between formal sector employees ($M=39.44, SD=8.85$) and informal sector employees ($M=36.91, SD=8.77$). Thus the level of stress among formal employees was not statistically different from informal sectors employees.

Equally, no significant difference was found between the formal sector ($M=37.70, SD=7.76$) and the informal sector ($M=38.62, SD=8.89$) employees on levels of burnout [$F_{(1, 336)} = -1.240, p = .282$]. This shows that the mean score of formal sector employees on suicide ideation, stress, and burnout was not significantly different from that of the informal sector employees. This does not support the sixth predication which stated that “there will be a significant difference between employees’ suicide ideation, burnout, and stress in the formal and informal sector”.

4.3.8 Test of Hypothesis 7

Some demographic characteristics will significantly predict suicide ideation, stress, and burnout. This hypothesis was tested using the Logistic Regression Analysis. This was because four demographic characteristics were regressed on three dependent variables. The demographic variables were categorized. The dependent variables (suicide ideation) was also categorized with 1 representing higher levels of suicide ideation, burnout, and stress.

Table 4. 6 *Impact of some demographic factors on suicide ideation among employees*

| | | β | S.E. | Wald | Df | Sig. |
|--------|----------------|---------|------|-------|----|------|
| Step 1 | Gender | -.257 | .242 | 1.124 | 1 | .289 |
| | Age | .027 | .014 | 3.510 | 1 | .061 |
| | Education | -.110 | .168 | .430 | 1 | .512 |
| | Marital Status | .512 | .283 | 3.268 | 1 | .031 |
| | Constant | .920 | .755 | 1.485 | 1 | .223 |

The logistic regression above shows that none of the demographic variables significantly predicted suicide ideation, except marital status ($\beta = 0.512, p < .05$). This means that marital status serves as a form of coping strategy towards suicide ideation. However, other demographic factors such as age, gender, and education are not predictors of suicide ideation.

Table 4. 7 *Impact of some demographic factors on the level of stress among employees*

| | | B | S.E. | Wald | Df | Sig. |
|--------|----------|-------|------|-------|----|------|
| Step 1 | Gender | .250 | .243 | 1.062 | 1 | .303 |
| | Age | .011 | .024 | .018 | 1 | .904 |
| | Edu | .038 | .167 | .053 | 1 | .818 |
| | Marital | .656 | .373 | 3.181 | 1 | .010 |
| | Constant | -.630 | .746 | .713 | 1 | .398 |

The logistic regression in Figure 4.7 shows that gender, age, and education were not significant predictors of stress, except marital status ($\beta = 0.658, p < .05$). Thus, demographic factors such as age, gender, and education were not predictors of suicide ideation. However, marital status serves as a form of coping strategy towards stress.

Table 4. 8 *Impact of some demographic factors on employee burnout*

| | | β | S.E. | Wald | Df | Sig. |
|--------|----------|---------|------|-------|----|------|
| Step 1 | Gender | .321 | .248 | 1.667 | 1 | .197 |
| | Age | .015 | .014 | 1.079 | 1 | .299 |
| | Edu | .056 | .171 | .107 | 1 | .744 |
| | Marital | .435 | .199 | 1.823 | 1 | .042 |
| | Constant | -1.063 | .763 | 1.944 | 1 | .163 |

Again, the logistic regression in figure 4.8 shows that gender, age, and education were not significant predictors of employment burnout ($p > .05$). However, marital status was significantly related to burnout ($\beta = .435, p < .05$). This means that marital status serves as a form of coping strategy against burnout.

This shows that apart from marital status, none of the demographic characteristics significantly predicted suicide ideation, stress, and burnout

4.4 Observed framework

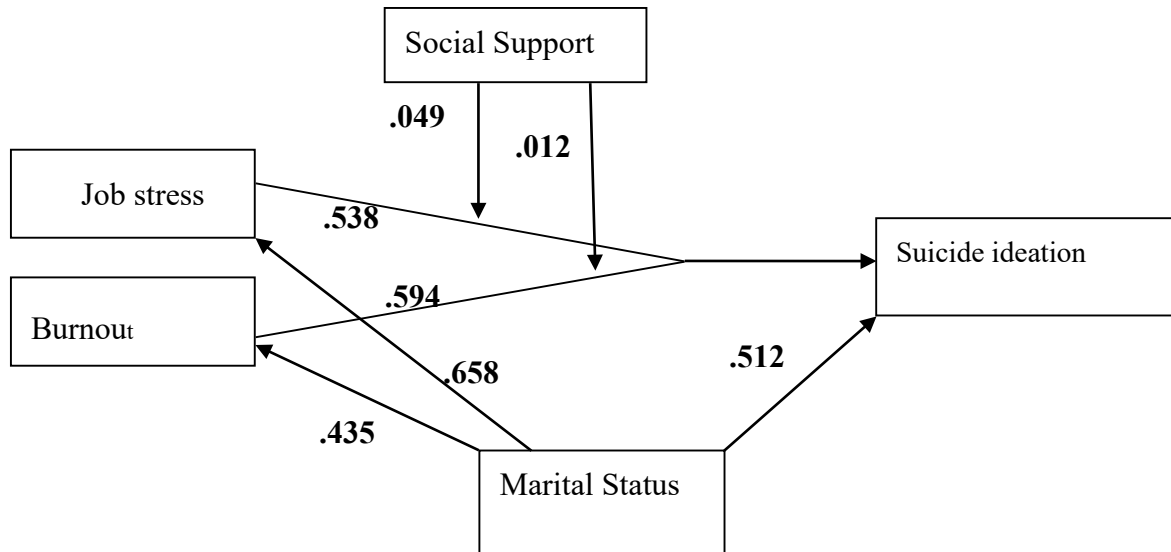


Figure 3 Observed framework of the relationship between the variables

From the observed model, there was a positive relationship between organizational stress and employees' suicide ideation. There was a significant positive correlation between organizational stress and employees' burnout. There was a positive association between organizational burnout and employees' suicide ideation. Social support moderated the relationship between stress and employee burnout. Social support moderated the nexus between stress and suicide ideation. Only marital status significantly predicted burnout, job stress and suicide ideation.

4.5 Chapter Summary:

This chapter discoursed the descriptive analyses of data by means of assessing the normality of the variables and reliability of the scales and the second stage involved testing the stated hypotheses. Seven hypotheses were tested using version 20.0 of the SPSS. The mediating role of social support on the association between the underlying variables of the study was also evaluated.

The next chapter provides a comprehensive discussion of the research findings outlined in this chapter and the suggestions thereof. The chapter would also expound on the limitations and significant recommendations for future studies as well as for practical interventions.

CHAPTER FIVE

DISCUSSION

5.1 Introduction

Seven hypotheses were formed based on the aim of the study. The results were presented in the previous chapter. This chapter provides comprehensive discussions of the research findings outlined in Chapter Four and the implications thereof. The findings are discussed in reference to extant scholarly works. The chapter elaborates on the limitations and makes significant recommendations for future studies and for practical interventions. This final chapter concludes with a summary of the main findings.

5.1.1 The Link between Job Stress and Suicide Ideation

The first prediction stated that there will be a positive relationship between organizational stress and employees' suicide ideation. The prediction was supported. This finding implies that the higher the level of stress, the higher the suicidal tendencies. The finding agrees with the study by Takusari, Suzuki, Nakamura, and Otsuka (2010) which found a significant positive association between stress and suicide ideation. It also agrees with a study by Loerbroks, Cho, Dollard, Zou, Angerer, and Herr (2013) on the impact of stress on suicide ideation among high school students. A positive association was found between stress and suicide ideation. As explained by Loerbroks et al. (2013), a higher level of stress leads to defective thinking such as suicide ideation. The finding again agrees with the study by Kleiman, Turner, Chapman, and Nock (2018) which assessed the influence of stress on suicide ideation using the longitudinal design. The results of the study revealed a positive relationship between stress and suicide ideation. Similarly, the study by Cheref et al. (2015) indicated a positive association between stress and suicide ideation among Chinese students.

The results are however contradictory to the findings of the study by Smith and Wilburn (2011). Which found no significant association between stress and suicidal tendencies. The lack of harmony between the finding of the present study and that of Smith and Wilburn (2011) can be due to cultural differences in the research setting. Smith and Wilburn (2011) conducted their study in the US whilst the present study was conducted in Ghana. In the US, stress is a common phenomenon because the community is more individualistic in nature, unlike Ghana with a different cultural orientation. In this case, a person going through serious stress will go through numerous thoughts of ending the situation and one of them is suicidal thoughts.

The positive association between stress and suicide ideations can be explained with Joiner's (2005) *Interpersonal-psychological Theory of Suicidal Behaviour* (p. 12). According to this theory, a person will not die by suicide unless he or she has the capacity or the wish to die by suicide. The theory conceives "perceived burdensomeness" and "a sense of low belongingness or social alienation" as instrumental to the decision to commit suicide. The "perceived burdensomeness" results in intense stress among people. The intense stress as a result of perceived burdensomeness compels the individual to consider suicide as an option (Joiner, 2005). According to the theory, stress is a major outcome of a low sense of belongingness (e.g., Savitha & Srimathi, 2017). When stress persists for a long time, it leads to suicidal thoughts.

5.1.2 Relationship between Organizational Stress and Burnout

Secondly, it was predicted that there will be a positive relationship between organizational stress and employees' burnout. That is, the researcher perceived that participants who perceived a higher level of stress will have a higher intention of death. This prediction was supported signifying that

employee burnout increases when there is a higher level of stress. The finding supports the study by Azeem et al. (2015) which found that stress has a significant positive association with burnout. Similarly, the finding confirms Khattak et al's. (2011) study which assessed the impact of stress on burnout. The result of the study showed that stress serves as a risk factor for higher burnout. According to Khattak et al. (2011), the inability to deal with stress leads to burnout.

The finding again corroborates the study by Ng, Ran, and Chan (2010) which revealed a significant positive correlation between stress and burnout. Similarly, the finding supports the study by Gandi et al. (2011) which revealed that stress has a significant positive relationship with burnout. As indicated by Gandi et al. (2011), stress serves as a risk factor to burnout. People have a tendency to deal with stress. However, there is other who cannot handle stress. The inability to handle stress will lead to burnout.

The finding is inconsistent with the study by Abbas, Roger, and Asadullah (2012). Abbas et al. (2012) examined the influence of stress on burnout among 80 universities workers in Pakistan. The study revealed no significant influence of stress on employee burnout. The contradiction in the finding can be due to the research methodology. The study by Abbas, Roger, and Asadullah (2012) adopted the descriptive statistics in analyzing the data. It must be reiterated that descriptive statistics is not suitable for drawing causal conclusions but may be valid in terms of description.

The positive association between stress and burnout can be explained using the Cognitive Behavioural Theory (Comstock & Partridge, 2002) which proposes that, stress results from irrational, defective, or maladaptive cognitions that take the form of distorted thoughts and conclusions. Individuals who go through stress think differently from those who are non-stressed and it is the differences in thought that cause them to experience burnout. For example, stressed out and depressed individuals tend to view themselves, the future and their environment in a

negative perspective (Comstock & Partridge, 2002). As a result, the individual who is stressed out tends to misconstrue facts in a harmful way and blame themselves for any calamity that happens. This unwanted judgment or cognitive style works as a negative bias resulting in burnout.

5.1.3 Association between Burnout and Suicide Ideation

Thirdly, the study tested the prediction that “there will be a positive relationship between organizational burnout and employees’ suicide ideation”. This prediction was supported; signifying that suicide ideation is experienced when individuals have a higher level of burnout. The finding supports the study by Dyrbye et al. (2008) which found that burnout has a significant positive correlation with suicide ideation. Similarly, Prins et al. (2010) assessed the impact of burnout on suicide ideation. The result of the study showed that burnout serves as a positive predictor of suicide ideation.

The finding again corroborates the study by Van der Prins et al. (2010) which revealed a significant positive correlation between burnout and suicide ideation. Similarly, the finding supports the study by Van der Heijden et al. (2006) which indicated that there is a significant positive correlation between burnout and suicide ideation. As indicated by Van der Heijden et al. (2006), an employee who suffers burnout becomes perplexed, confused and it may result in damaging physiological and psychological consequences; and if it lingers on for a long time, burnout can adversely result in ailment and emotional strain. Burnout could also ultimately lead to suicide.

The finding can be explained by the Sociological Theory of Suicide (Durkheim, 1917). The theory proposes that socially integrated persons are more secure psychologically and they possess a feeling of identity and belonging in their various societies. When people become alienated from

the society they live in, it results in defective thoughts such as death. He explained this with the anomie theory of suicide in that there is a form of disconnection from society. According to this theory, the weakened organizational bond that disintegrates individuals from the larger society may result in stress and depression. People who will be prone to this type of stress would consider suicide. He also asserted that the more a person is integrated socially through a low level of stress and burnout, the less the thought of suicide.

5.1.4 Social Support Moderating the Relationship between Stress and Suicide Ideation

Given that, social support is a coping factor, it was stated that “social support will moderate the relationship between stress and suicide ideation”. This finding implies that the effect of stress on suicide ideation will be low when employees perceive higher social support. The finding agrees with the study by Shaheen and Jahan (2017) which assessed the moderating role of support on the nexus between stress and suicide ideation. Shaheen and Jahan (2017) indicated that the relationship between stress and suicide ideation is moderated by social support. This revelation in this current study also agrees with a study by Trujillo et al. (2017) on the impact of social support as decreasing the effect of stress on the nexus between stress and suicide ideation. A positive moderating role of social support emerged between stress and suicide ideation. As explained by Trujillo et al. (2017), social support serves as a coping mechanism for the negative effect of stress.

The finding again agrees with the study by Kleiman et al. (2012) which assessed the influence of stress on the association between stress and suicide ideation. The meta-analytical design was adopted by analyzing the research findings of 16 researchers from 500 participants. Social support weakened the association between stress and suicide ideation. Similarly, the study by Lim et al. (2018) indicated that social support moderate the relationship between stress and suicide ideation.

The result is however contradictory to the findings by Faria et al. (2019) who found no moderating role of social support on the relationship between stress and suicide ideation. The inconsistency between the findings of the present study and that of Faria et al. (2019) can be due to how social support was measured. In Faria et al. (2019), social support was measured in terms of support received from friends. However, social support is not only obtained by friends. Social support is obtained from family, friends, and even other sources. Social support can be in the form of information or tangible support. With information as support, employees receive the needed information in the form of advice to cope with their stress.

Some researchers (for example, Savitha & Srimathi, 2017; Shipley, 2015) have indicated that shared information and ordinary conversations assist people to regulate their cognition and decision making in ways that result in stress reduction and enhance the mental health. Tangible support involves actively helping someone manage a problem they are experiencing. Employees enjoying tangible support may receive something when they are experiencing severe stress (Shipley, 2015). This has the tendency of reducing the employee's suicidal tendencies.

5.1.5 Social Support Moderating the Nexus between Burnout and Suicide Ideation

The fifth prediction was that the relationship between employee burnout and suicide ideation will be moderated by social support. Consistent with the prediction, the hypothesis was supported.

This implies that social support is an important coping mechanism that helps people to cope in times of burnout to relieve people of mental problems. The finding agrees with the study by YuHang et al. (2017) which found social support to moderate the link between burnout and suicide ideation. It also agrees with a study by Lamis et al. (2016) on the impact of social support on the link between burnout and suicide ideation. The findings indicated a positive influence on the nexus

between burnout and suicide ideation. As explained by Lamis et al. (2016), social support serves as an important mechanism by reducing burnout to improve mental states.

The finding again agrees with the study by Gonçalves et al. (2014) which assessed the influence of burnout on the association between burnout and suicide ideation. The study revealed that students who received perceived social support were able to cope with the existing workload in the organization to reduce the tendency of suicide ideation. Similarly, the study by Carter et al. (2018) indicated that social support ameliorates the positive impact between burnout and suicide ideation.

Besides social support serving as a powerful coping resource, there are other reasons that can elucidate the significant moderating role of social support in the nexus between burnout and suicide ideation. One of those reasons is that support from family, friends and the organization provides a feeling of self-worth (Kapulsky et al., 2015) to employees and helps them to take productive initiatives necessary to reduce the positive consequences of burnout on suicide ideation. Moreover, interpersonal provision of support received by employees serves as a buffer against the stressors of life which can expose these employees to burnout, leading to suicide ideation.

5.1.6 Relationship between Formal and Informal Sector on Suicide Ideation

The last prediction, that “there will be a significant difference between employees’ suicide ideation, burnout, and stress in the formal and informal sector” was not supported. This finding means that employees in the formal sector and those in the informal sector do not differ in their level of suicide ideation, stress, and burnout. The finding is not startling given the high level of stressors employees in both sectors are confronted with. The finding is inconsistent with the study

conducted by Choi (2018) which found employees in the informal sector experience a higher level of suicidal tendencies and stress as compared to the formal sectors. The use of longitudinal design by Choi (2018) could have contributed to the inconsistency in the findings.

The lack of difference in suicide ideation between formal sector and informal sector employees, however, agrees with the study by Lee et al. (2016) which assessed whether there is any significant difference in the level of suicide ideation, stress, and burnout between formal sector and informal sector employees. The study found that employees in the formal sector and those in the informal sector do not differ in the levels of suicide ideation, stress, and burnout. The finding is again in line with the study by Fitzpatrick et al. (2018) on the differences between formal and informal sector employee in suicide ideation and stress. The analysis showed that formal and informal employees did not differ in their levels of suicide ideation. Similarly, a study by Addai et al. (2018) revealed that the sector of employees did not influence the level of burnout and suicide ideation.

5.1.7 Demographic characteristics on Suicide ideation

The seventh hypothesis stated that some demographic characteristics will significantly predict suicide ideation, stress, and depression. Findings indicated that all the demographic factors were not significant predictors of suicide ideation, burnout, and stress except for marital status. The insignificant difference between demographic factors such as age, gender, and educational status is also not surprising because studies on these demographic factors on suicide ideations have been inconsistent. Some studies have indicated that demographic factors are a significant indicator of suicide ideation, stress, and burnout (Kleiman et al. 2015; Shaheen & Jahan, 2017).

The finding is in accordance with the study by Fountoulakis et al. (2014) which indicated that demographic factors such as age, and gender did not influence stress, burnout, and suicide ideation. The finding again agrees with the study by Barrett and Boggiano (2011) which assessed demographic factors as predictors of suicide ideation and stress. The study found that prevalence patterns of stress and suicide were very similar for some demographic factors. The finding indicated that age and educational status were not significant indicators of stress and suicide ideation. Similarly, a study by Ozkan et al. (2015) revealed that demographic factors such as educational status, age, and gender were not significant factors or predictors of stress, burnout and suicide ideation.

The significant impact of marital status on suicide ideation is consistent with the study by Kleiman, Turner, Chapman, and Nock (2018) who conducted a study to investigate suicide ideation and stress after marital separation. The results of the study indicated that people who are not married have a higher level of suicide ideation and stress compared to those who were married. It is also consistent with the study conducted by Takusari, Suzuki, Nakamura, and Otsuka (2010) which found a significant impact of marital status on stress and suicide ideation. As explained by Takusari et al. (2010), marital status serves as a coping status against depression which is a predictor of suicide ideation.

The significant impact of marital status is however contradictory with the study conducted by Loerbroks et al. (2013) on the relationship between marital status, stress, and suicide ideation in China. The findings indicated that marital status was no significant impact on stress and suicide ideation. The contradiction between the present study and the study by Loerbroks et al. (2013) is because Loerbroks et al. (2013) adopted the meta-analytical design which is associated with

publication bias. The outcome of the meta-analytical design is determined by the studies reviewed (Walker, Kattan & Hernandez, 2008).

5.2 Contributions of the Present Study

Stress and burnout have been found as the most influential factors affecting the mental health of employees in Ghana. The study makes contributions to scientific research in the area of stress, burnout, and suicide ideation.

Firstly, the study assessed social support as an ameliorating factor of the association between stress, burnout and suicide ideation among employees in Ghana. This study has proven that reducing stress and burnout would significantly reduce suicide ideation. A significant implication of the contribution of this finding is that ill mental health such as suicide ideation can be reduced among employees when measures are instituted to reduce stress and burnout.

Secondly, an outstanding contribution of the present study is a theoretical understanding of the moderating role of social support in the link between stress, burnout and suicide ideation in the Ghanaian context. Even though the present study is among the maiden studies assessing the moderating role of social support on the relationship between stress, burnout, and suicide ideation, it offers the basis for understanding the intervening factor of the underlying relationship in the Ghanaian context for policy consideration. It creates that awareness that marital status is the only demographic factor that serves as coping mechanisms against suicide ideation. Additionally, it also proposes a potential model and framework that could be adopted when designing policies to improve psychological well-being.

5.3 Limitations of the Study

Though the findings of this study contribute enormously to the field of positive psychology of employees and the general population at large, the study, nonetheless, has some limitations that should be considered in the interpretation and applicability of the results. The limitations and recommendations for future research are deliberated in the ensuing paragraphs.

First, the respondents were all employees and as such the findings cannot be generalized to all the population in Ghana since the stress, burnout and suicide ideation issues among employees differ from those of the non-working population. The sample may be quite representative of employees in the formal and informal sectors in Accra and not in the other regions of Ghana.

Future research works could involve multi-group comparisons. For example, an employee in the Greater Accra Region could be compared to those from the other regions with the intention of increasing generalizability of the findings.

The second limitation is connected to the design of the study. Even though the model had a good fit with the observed data and significant correlations were found between the underlying variables, stress, burnout and suicide ideation, causal inferences regarding the correlations among the underlying variables could not be established. This pertains to the correlational nature of the study. Longitudinal research on the relationship between the underlying moderating variable in the relationship between stress, burnout, and suicide ideation would help to better understand the causality or direction of the relationship.

Lastly, reporting bias is a probable limitation of this study. Suicide ideation was self-reported by the employees. Some of the items in the Suicide Ideation Scale may be considered sensitive. The

respondents might not have honestly reported their level of suicide ideation, despite the fact that questionnaires were answered anonymously. It is, therefore, possible that suicide ideation has been underestimated (Schneidman, 2016). However, there is nothing to suggest that this bias would have differentially affected the level in both the formal and informal sectors. Whereas suicide ideation itself may have been under-reported, there is no indication to suggest that respondents would answer other questions more or less candidly based on the experience of suicide ideation. Nonetheless, a longitudinal survey would be beneficial.

5.4 Implications for Research and Intervention

The current study reported a significant negative association between stress and suicide ideation. This finding implies that the stress of employees is an essential risk factor for suicide ideation. Accordingly, ensuring minimal levels of stress for employees should be a principal focus for management.

The study also indicated burnout as a significant factor in the suicide ideation. These findings imply that stress must not escalate into burnout among workers within the formal and informal sector if these workers are to be psychologically equipped. For that reason, it is therefore important to identify the employee who is more stressful and take them through psychotherapy in order to avoid escalating into burnout which can easily trigger suicidal thoughts.

Moreover, social support was found to moderate the associating between stress and suicide ideation among employees. Ensuring maximum social support should be integral in the managerial intervention. There is also the need to integrate social activities into managerial programs. Employers must also educate employees on the need to recognize that lack of social support is one

of the essential factors that make employees vulnerable to stress, burnout and suicide ideation. As such, employees need social support from others in order to avoid suicide ideation. The informal sector must also be sensitized to form groups which will help engage in periodic recreational activities. This will help provide social support so as to help reduce their level of stress and burnout to prevent suicide ideation.

Again, the results of the study discovered an insignificant relationship between formal and informal sectors on suicide ideation. This means that the sector of work does not play a significant role in employees' stress, burnout and suicide ideation. Interventions must target both formal and informal employees to help cope with stress and burnout. Future research on the underlying variables would be essential to reducing the paucity of literature in this area and provide direction to future researchers on relevant areas to examine. Only marital status was found to be a coping status towards suicide ideation in the demographics.

The methodological limitations encountered in the present study need to be addressed. Future researches with these same variables and also in exploring the recommendations in this study should employ either qualitative research approaches or both qualitative and quantitative approaches, for a better understanding of the interaction effects of all the variables in the study.

A longitudinal design can also be adopted over the cross-sectional design, for a better understanding of the long term effect of the variables investigated in this study.

5.5 Summary of Findings

The present study was a cross-sectional study assessing social support as a moderating role of the association between the relationship between stress, burnout and suicide ideation, using workers

in both the formal and informal sectors. The results indicated that there was a positive relationship between organizational stress and employees' suicide ideation. There was a positive relationship between organizational stress and employee burnout. There was a positive relationship between organizational burnout and employees' suicide ideation. Social support moderates the nexus between stress and employee burnout. Social support moderates the association between stress and suicide ideation. There was no significant difference between employees' suicide ideation, stress, and burnout in the formal and informal sectors. Demographic factors did not predict stress, burnout, and suicide ideation excepts marital status.

In conclusion, in order for employees to decrease the growing number of employees battling stress and burnout as a means of decreasing suicide ideation, they must fully understand the causes of stress and burnout. Preventive programs might be needed to be implemented to address the root of stress and possible healthy coping mechanisms for stress and burnout. Since stress and burnout are often a gateway for more serious health risks and unproductive behaviours, it is imperative that employers and employees work together to provide social support to control stress and burnout.

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APPENDICES

QUESTIONNAIRE

I am a student of the University of Ghana. I am conducting an academic research which seeks to investigate burnout, stress and suicide ideation: moderating role of social support on employees. This research will be used for academic purposes only and please be assured that your responses will be kept confidential. If you need any assistance in answering the questions, please do not hesitate to ask me (0200400723). The questionnaire will not take more than 30 minutes to complete. Your cooperation and participation in this research and answering questions honestly will be greatly appreciated (You do not have to write your Name).

Thank you in anticipation of your cooperation.

SECTION A: General Information

(Please tick [] where appropriate)

- a. Gender: Male [] Female []
- b. Age (please state): _____
- c. Position:
- d. Level of Education (highest attained): No Education [] Basic Education [
High School [] Tertiary []
- e. Sector: Formal [] Informal []
- f. Marital status: Single [] Married [] Separated [] Divorced [] Widowed []

INSTRUCTION

Please, circle the number that best describes your agreement with the following statement about your job. Please circle only ONE answer for each statement.

Strongly Disagree (SD) = 1; Disagree (D) = 2; Neutral (N) = 3 ; Agree (A) = 4 ; Strongly Agree (SA) = 5

| | Statements | SD | D | N | A | SA |
|---|--|----|---|---|---|----|
| 1 | Working here makes it hard to spend enough time with my family | | | | | |
| 2 | I spend so much time at work, I can't see the forest for the trees | | | | | |
| 3 | Working here leaves little time for other activities | | | | | |

| | | | | | | |
|----|--|--|--|--|--|--|
| 4 | I frequently get the feeling I am married to the company. | | | | | |
| 5 | I have too much work and too little time to do it in. | | | | | |
| 6 | I sometimes dread the telephone ringing at home because the call might be job-related. | | | | | |
| 7 | I feel like I never have a day off | | | | | |
| 8 | Too many people at my level in the company get burned out by job demands | | | | | |
| 9 | I have felt fidgety or nervous as a results of my job | | | | | |
| 10 | My job gets to me more than it should | | | | | |
| 11 | There are lots of times when my job drives me up the wall. | | | | | |
| 12 | Sometimes when I think about my job I get a tight feeling in my chest | | | | | |
| 13 | I feel guilty when I take time off from job | | | | | |

INSTRUCTION

Please indicate your agreement with the following statements by circling the number that applies to you. Please circle only ONE answer for each statement.

Never (N) = 1 Once a Month or Less (OM) = 2 Regular/Few Times in The Month (R) = 3
 Often or Once a Week (O) = 4 Daily (D) =5

| | Statement | N | OM | R | O | D |
|---|---|----------|-----------|----------|----------|----------|
| 1 | I feel emotionally drained from my work | | | | | |
| 2 | I feel tired at the end of my workday | | | | | |
| 3 | Working all day is really a strain for me | | | | | |
| 4 | I feel burned out from my work | | | | | |
| 5 | I have become less enthusiastic about my work | | | | | |

| | | | | | | |
|----|---|--|--|--|--|--|
| 6 | In my opinion, I am good at my job | | | | | |
| 7 | I just want to do my job and not to be bothered. | | | | | |
| 8 | I doubt the significance of my work | | | | | |
| 9 | I feel tired when I get up in the morning and have to face another day on the job | | | | | |
| 10 | I can effectively solve the problems that arise in my work. | | | | | |
| 11 | I feel I'm making an effective contribution to what this Institution offers | | | | | |
| 12 | I have become less interested in my work since started this job | | | | | |
| 13 | I feel exhilarated when I accomplish something at work | | | | | |
| 14 | I have accomplished many worthwhile things in this job | | | | | |
| 15 | I have become more cynical about whether my work contributes anything | | | | | |
| 16 | At my work, I feel confident that I am effective at getting tasks done | | | | | |

INSTRUCTION

For each of the following items, please rate the frequency with which you have felt or behaved that way during the past year. Please circle only ONE answer for each statement.

Never (N) = 1; A Few Times A Year or Less (FY) = 2; Regular or Few Times in the Mouth (R) = 3; Often or Few Times in the Week (O) = 4; Always (A) = 5

| | | N | FY | R | O | A |
|---|---|---|----|---|---|---|
| 1 | I have been thinking of ways to kill myself | | | | | |
| 2 | I have told someone I want to kill myself | | | | | |
| 3 | I believe my life will end in suicide | | | | | |
| 4 | I have made attempts to kill myself | | | | | |

| | | | | | | |
|----|--|--|--|--|--|--|
| 5 | I feel life just isn't worth living | | | | | |
| 6 | Life is so bad I feel like giving up | | | | | |
| 7 | I just wish my life would end | | | | | |
| 8 | It would be better for everyone involved if I was to die | | | | | |
| 9 | I feel there is no solution to my problems other than taking my own life | | | | | |
| 10 | I have come close to taking my own life | | | | | |

INSTRUCTION

Please indicate your agreement with the following statements by circling the number that applies to you. Please circle only ONE answer for each statement.

Strongly Disagree (SD) =1; Disagree (D) =2; Undecided (U) = 3; Agree (A) = 4; Strongly Agree (SA) =5

| | | SD | D | U | A | SA |
|----|---|-----------|----------|----------|----------|-----------|
| 1 | There is a special person who is around when I am in need | | | | | |
| 2 | There is a special person with whom I can share my joys and sorrows | | | | | |
| 3 | My family really tries to help me | | | | | |
| 4 | I get the emotional help and support I need from my family | | | | | |
| 5 | I have a special person who is a real source of comfort to me | | | | | |
| 6 | My friends really try to help me | | | | | |
| 7 | I can count on my friends when things go wrong | | | | | |
| 8 | I can talk about my problems with my family | | | | | |
| 9 | I have friends with whom I can share my joys and sorrows | | | | | |
| 10 | There is a special person in my life who cares about my feelings | | | | | |

| | | | | | | |
|----|--|--|--|--|--|--|
| 11 | My family is willing to help me make decisions | | | | | |
| 12 | I can talk about my problems with my friends | | | | | |

Descriptive Statistics

| | N | Minimum | Maximum | Mean | Std. Deviation | Skewness | | Kurtosis | |
|--------------------|-----------|-----------|-----------|-----------|----------------|-----------|------------|-----------|------------|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| Stress | 338 | 25.00 | 63.00 | 41.2219 | 9.64294 | .280 | .133 | -.899 | .265 |
| Burnout | 338 | 33.00 | 107.00 | 67.0414 | 14.46529 | -.118 | .133 | -.254 | .265 |
| Support | 338 | 13.00 | 63.00 | 37.5799 | 11.20967 | .064 | .133 | -1.057 | .265 |
| Suicidal_Ideation | 338 | 17.00 | 67.00 | 38.1627 | 8.88904 | .733 | .133 | .491 | .265 |
| Valid N (listwise) | 338 | | | | | | | | |

Correlations

| | | Stress | Burnout | Support | Suicidal_Ideation |
|-------------------|---------------------|---------|---------|---------|-------------------|
| Stress | Pearson Correlation | 1 | .594** | -.467** | .538** |
| | Sig. (1-tailed) | | .000 | .000 | .000 |
| | N | 338 | 338 | 338 | 338 |
| Burnout | Pearson Correlation | .594** | 1 | -.388** | .344** |
| | Sig. (1-tailed) | .000 | | .000 | .000 |
| | N | 338 | 338 | 338 | 338 |
| Support | Pearson Correlation | -.467** | -.388** | 1 | -.603** |
| | Sig. (1-tailed) | .000 | .000 | | .000 |
| | N | 338 | 338 | 338 | 338 |
| Suicidal_Ideation | Pearson Correlation | .538** | .344** | -.603** | 1 |
| | Sig. (1-tailed) | .000 | .000 | .000 | |
| | N | 338 | 338 | 338 | 338 |

** . Correlation is significant at the 0.01 level (1-tailed).

Moderating role of social support

Stress and Social Support

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .538 ^a | .290 | .288 | 7.50177 |
| 2 | .670 ^b | .448 | .445 | 6.62159 |
| 3 | .706 ^c | .498 | .493 | 6.32739 |

a. Predictors: (Constant), Stress

b. Predictors: (Constant), Stress, Support

c. Predictors: (Constant), Stress, Support, StressSupport

ANOVA^d

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|---------|-------------------|
| 1 | Regression | 7719.131 | 1 | 7719.131 | 137.164 | .000 ^a |
| | Residual | 18908.919 | 336 | 56.277 | | |
| | Total | 26628.050 | 337 | | | |
| 2 | Regression | 11939.811 | 2 | 5969.905 | 136.158 | .000 ^b |
| | Residual | 14688.239 | 335 | 43.845 | | |
| | Total | 26628.050 | 337 | | | |
| 3 | Regression | 13256.057 | 3 | 4418.686 | 110.368 | .000 ^c |
| | Residual | 13371.994 | 334 | 40.036 | | |
| | Total | 26628.050 | 337 | | | |

Excluded Variables^c

| Model | | Beta In | T | Sig. | Partial Correlation | Collinearity Statistics Tolerance |
|-------|---------------|--------------------|---------|------|---------------------|--------------------------------------|
| 1 | Support | -.450 ^a | -9.811 | .000 | -.472 | .782 |
| | StressSupport | -.462 ^a | -11.250 | .000 | -.524 | .912 |
| 2 | StressSupport | -.925 ^b | -5.734 | .000 | -.299 | .058 |

a. Predictors in the Model: (Constant), Stress

b. Predictors in the Model: (Constant), Stress, Support

c. Dependent Variable: Suicidal_Ideation

Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|---------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 17.704 | 1.794 | | 9.869 | .000 |
| | Stress | .496 | .042 | .538 | 11.712 | .000 |
| 2 | (Constant) | 39.108 | 2.696 | | 14.508 | .000 |
| | Stress | .303 | .042 | .328 | 7.152 | .000 |
| | Support | -.357 | .036 | -.450 | -9.811 | .000 |
| 3 | (Constant) | 10.381 | 5.633 | | 1.843 | .066 |
| | Stress | .971 | .123 | 1.054 | 7.868 | .000 |
| | Support | .410 | .138 | .517 | 2.966 | .003 |
| | StressSupport | -.018 | .003 | -.925 | -5.734 | .000 |

a. Dependent Variable: Suicidal_Ideation

Excluded Variables^c

| Model | | Beta In | T | Sig. | Partial Correlation | Collinearity Statistics |
|-------|---------------|--------------------|---------|------|---------------------|-------------------------|
| | | | | | | Tolerance |
| 1 | Support | -.450 ^a | -9.811 | .000 | -.472 | .782 |
| | StressSupport | -.462 ^a | -11.250 | .000 | -.524 | .912 |
| 2 | StressSupport | -.925 ^b | -5.734 | .000 | -.299 | .058 |

a. Predictors in the Model: (Constant), Stress

b. Predictors in the Model: (Constant), Stress, Support

c. Dependent Variable: Suicidal_Ideation

Burnout and Support

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .344 ^a | .118 | .116 | 8.35884 |
| 2 | .615 ^b | .378 | .375 | 7.02907 |
| 3 | .621 ^c | .388 | .380 | 7.00025 |

- a. Predictors: (Constant), Burnout
- b. Predictors: (Constant), Burnout, Support
- c. Predictors: (Constant), Burnout, Support, BurnoutStress

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|---------|-------------------|
| 1 | Regression | 3151.654 | 1 | 3151.654 | 45.107 | .000 ^a |
| | Residual | 23476.397 | 336 | 69.870 | | |
| | Total | 26628.050 | 337 | | | |
| 2 | Regression | 10076.443 | 2 | 5038.221 | 101.972 | .000 ^b |
| | Residual | 16551.608 | 335 | 49.408 | | |
| | Total | 26628.050 | 337 | | | |
| 3 | Regression | 10260.863 | 3 | 3420.288 | 69.797 | .000 ^c |
| | Residual | 16367.187 | 334 | 49.004 | | |
| | Total | 26628.050 | 337 | | | |

Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|---------------|-----------------------------|------------|---------------------------|---------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 23.989 | 2.159 | | 11.113 | .000 |
| | Burnout | .211 | .031 | .344 | 6.716 | .000 |
| 2 | (Constant) | 49.313 | 2.805 | | 17.577 | .000 |
| | Burnout | .080 | .029 | .130 | 2.772 | .006 |
| | Support | -.439 | .037 | -.553 | -11.839 | .000 |
| 3 | (Constant) | 37.128 | 6.874 | | 5.401 | .000 |
| | Burnout | .254 | .094 | .413 | 2.693 | .007 |
| | Support | -.136 | .160 | -.171 | -.847 | .398 |
| | BurnoutStress | -.006 | .004 | -.386 | -1.940 | .043 |

a. Dependent Variable: Suicidal_Ideation

Excluded Variables^c

| Model | Beta In | T | Sig. | Partial Correlation | Collinearity Statistics |
|-------|---------|---|------|---------------------|-------------------------|
|-------|---------|---|------|---------------------|-------------------------|

| | | | | | | Tolerance |
|---|---------------|--------------------|---------|------|-------|-----------|
| 1 | Support | -.553 ^a | -11.839 | .000 | -.543 | .850 |
| | BurnoutStress | -.550 ^a | -12.020 | .000 | -.549 | .877 |
| 2 | BurnoutStress | -.386 ^b | -1.940 | .053 | -.106 | .046 |

a. Predictors in the Model: (Constant), Burnout

b. Predictors in the Model: (Constant), Burnout, Support

c. Dependent Variable: Suicidal_Ideation