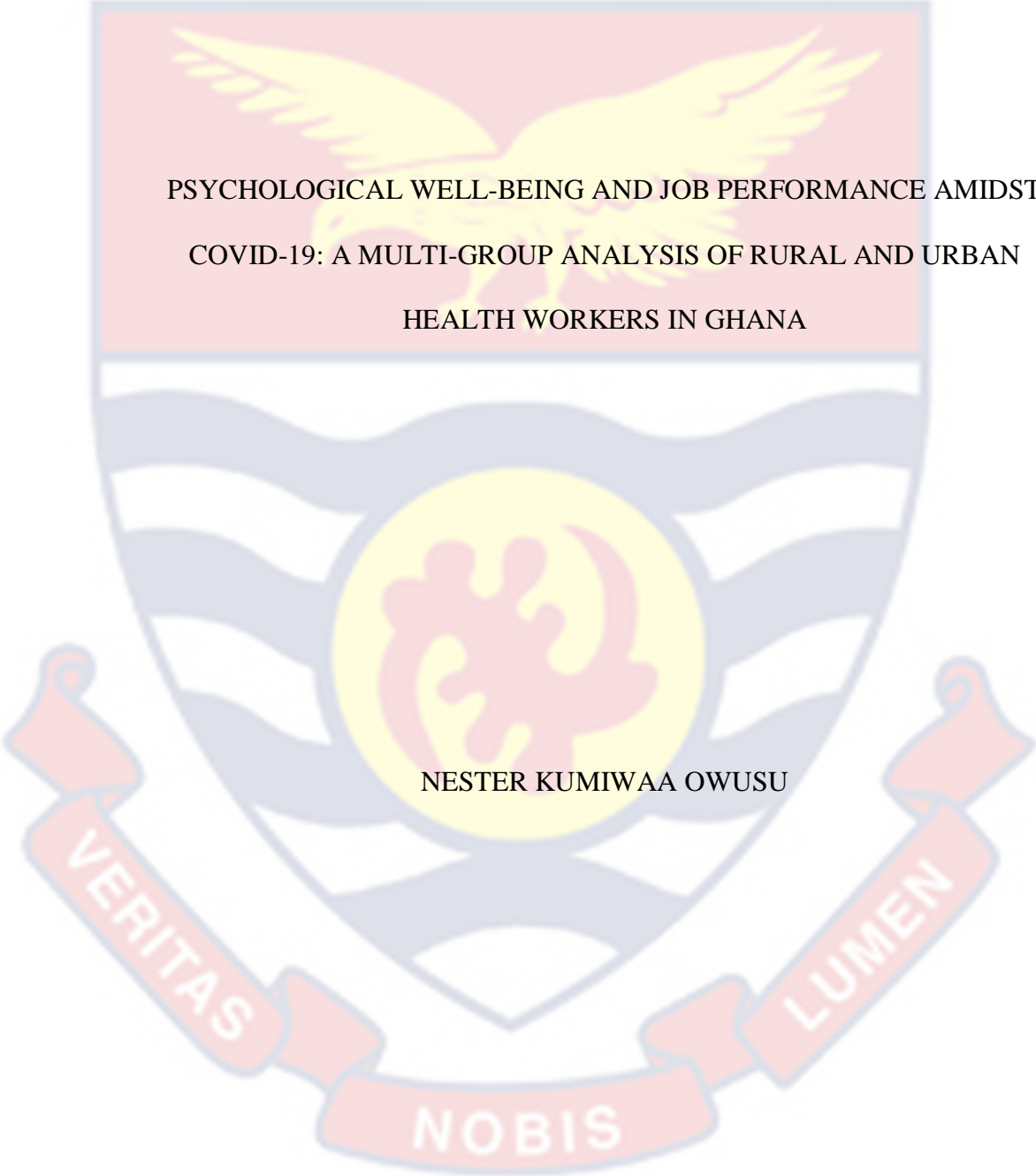


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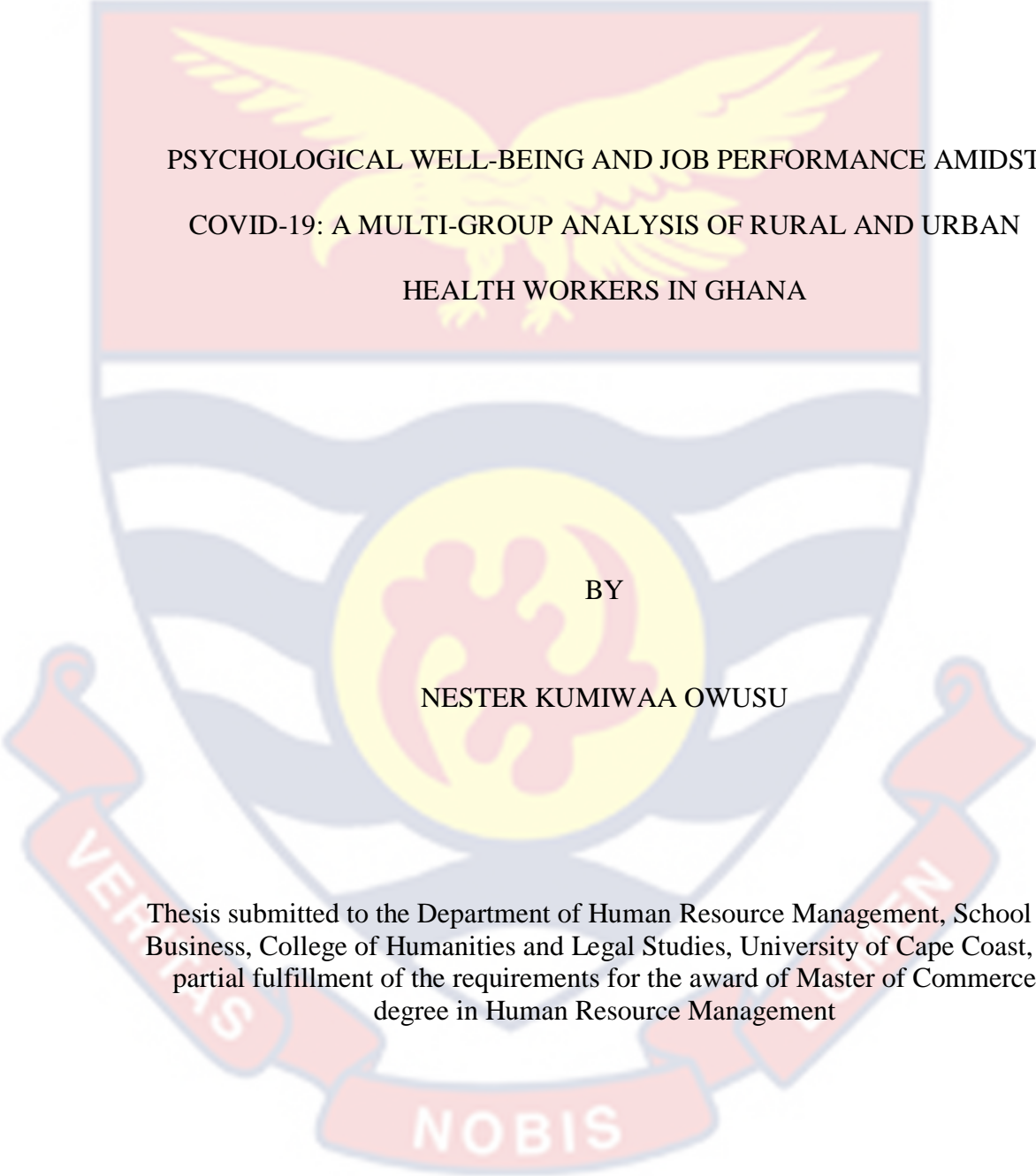


PSYCHOLOGICAL WELL-BEING AND JOB PERFORMANCE AMIDST
COVID-19: A MULTI-GROUP ANALYSIS OF RURAL AND URBAN
HEALTH WORKERS IN GHANA

NESTER KUMIWAA OWUSU

2023

UNIVERSITY OF CAPE COAST



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HEALTH WORKERS IN GHANA

BY

NESTER KUMIWAA OWUSU

Thesis submitted to the Department of Human Resource Management, School of Business, College of Humanities and Legal Studies, University of Cape Coast, in partial fulfillment of the requirements for the award of Master of Commerce degree in Human Resource Management

MAY 2023

DECLARATION

Candidate's Declaration

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

Candidate's Signature..... Date:

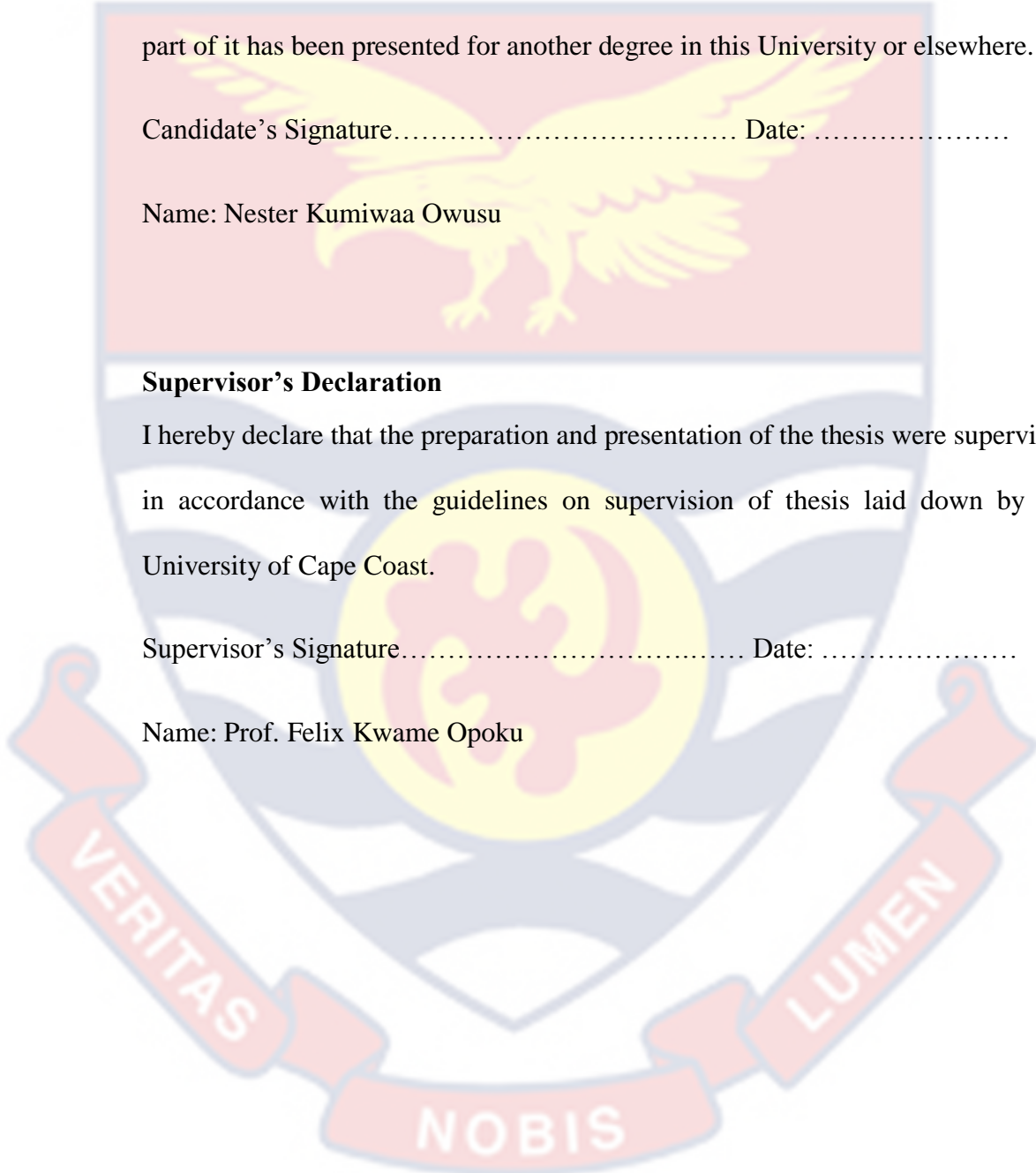
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Supervisor's Declaration

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

Supervisor's Signature..... Date:

Name: Prof. Felix Kwame Opoku



ABSTRACT

The onset of COVID-19 has caused a paradigm shift in individual and firm activities. Throughout this pandemic, health workers have been highly engaged in a range of activities from educating people about the pandemic to vaccinating the populace. While Personal Protective Equipment (PPEs) have been provided for their physical well-being and financial incentives given to motivate them, little has been heard about their psychological well-being and how this has affected their performance. This quantitative study, guided by the post-positivist paradigm was therefore conducted to assess the levels of psychological well-being and job performance of nurses and midwives in rural and urban hospitals. Also, the influence of their psychological well-being on job performance was ascertained. The Job-Demands Resource (JD-R) theory and Self-Determination theory formed the basis for this study. Questionnaire items were adapted from standardized scales to collect data. Psychological well-being was measured as a second order construct with six dimensions (autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance). The stratified random technique was used to retrieve a total of 262 questionnaires for the analyses. PLS algorithm and multi-group analysis were used to investigate the hypothesized relationships. The findings indicated that psychological well-being and job performance were high in both hospitals. Also, psychological well-being influenced job performance in both hospitals. Lastly, the study found that the influence of psychological well-being on job performance in urban health workers was relatively higher than the influence of psychological well-being on job performance in the rural sample. Practical implications and directions for future research have been provided.

KEYWORDS

COVID-19 pandemic

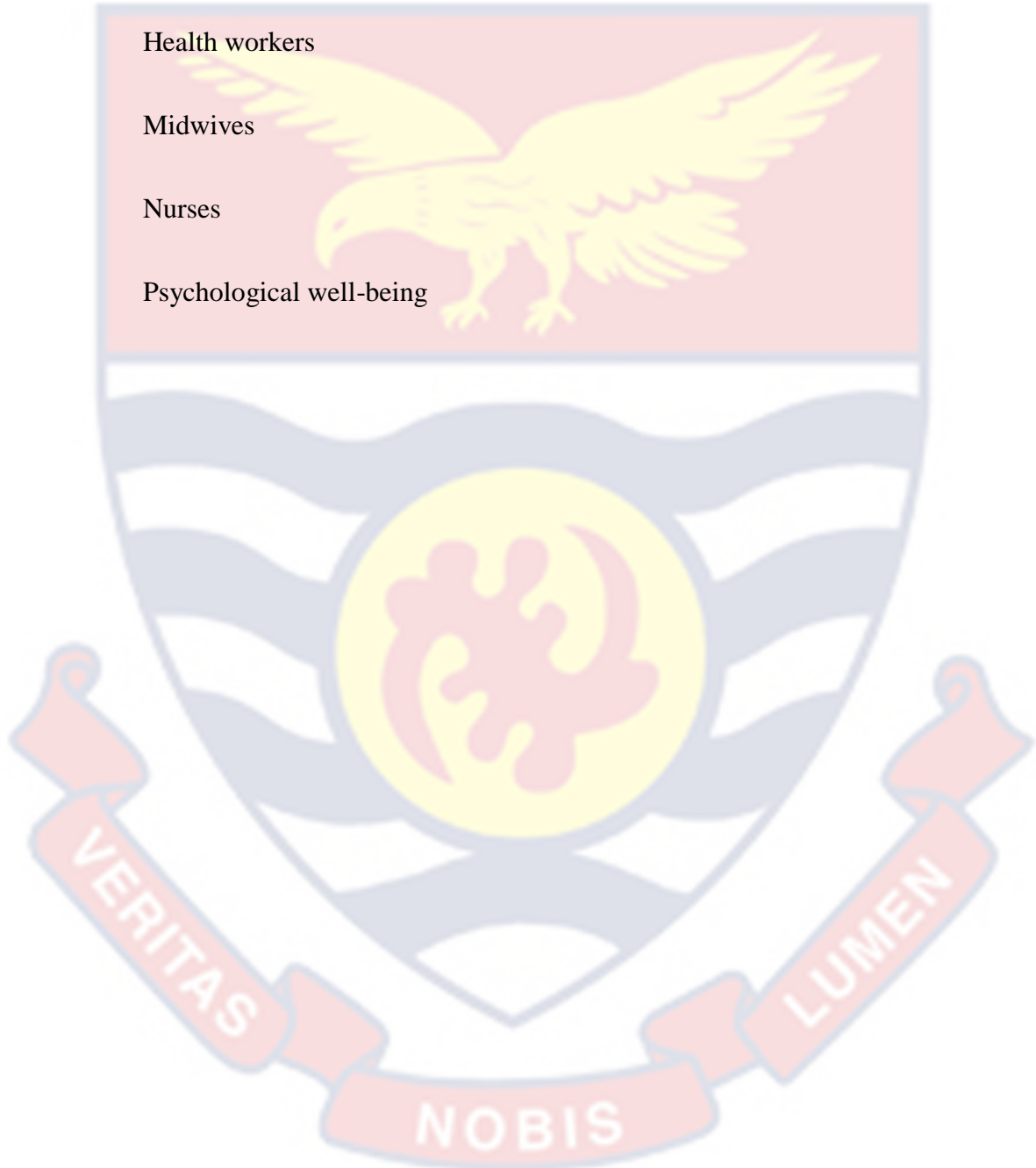
Employee job performance

Health workers

Midwives

Nurses

Psychological well-being



ACKNOWLEDGEMENTS

My heartfelt gratitude goes to my supervisor, Prof. Felix Kwame Opoku for his expert academic guidance and advice which served as the bedrock in preparing this thesis. I also appreciate my parents for their love and support throughout this two-year programme. I am incredibly indebted to Mr. Alexander Agbenyegah for his unwavering support and encouragement that kept me forging ahead. To the staff of Our Lady of Grace Hospital and Cape Coast Teaching Hospital, I say thank you for allowing me to utilise your facilities for this research.

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DEDICATION

To my father and best friend, Mr. Felix Yaw Owusu and my lovely mum, Mrs.

Ruth Owusu.



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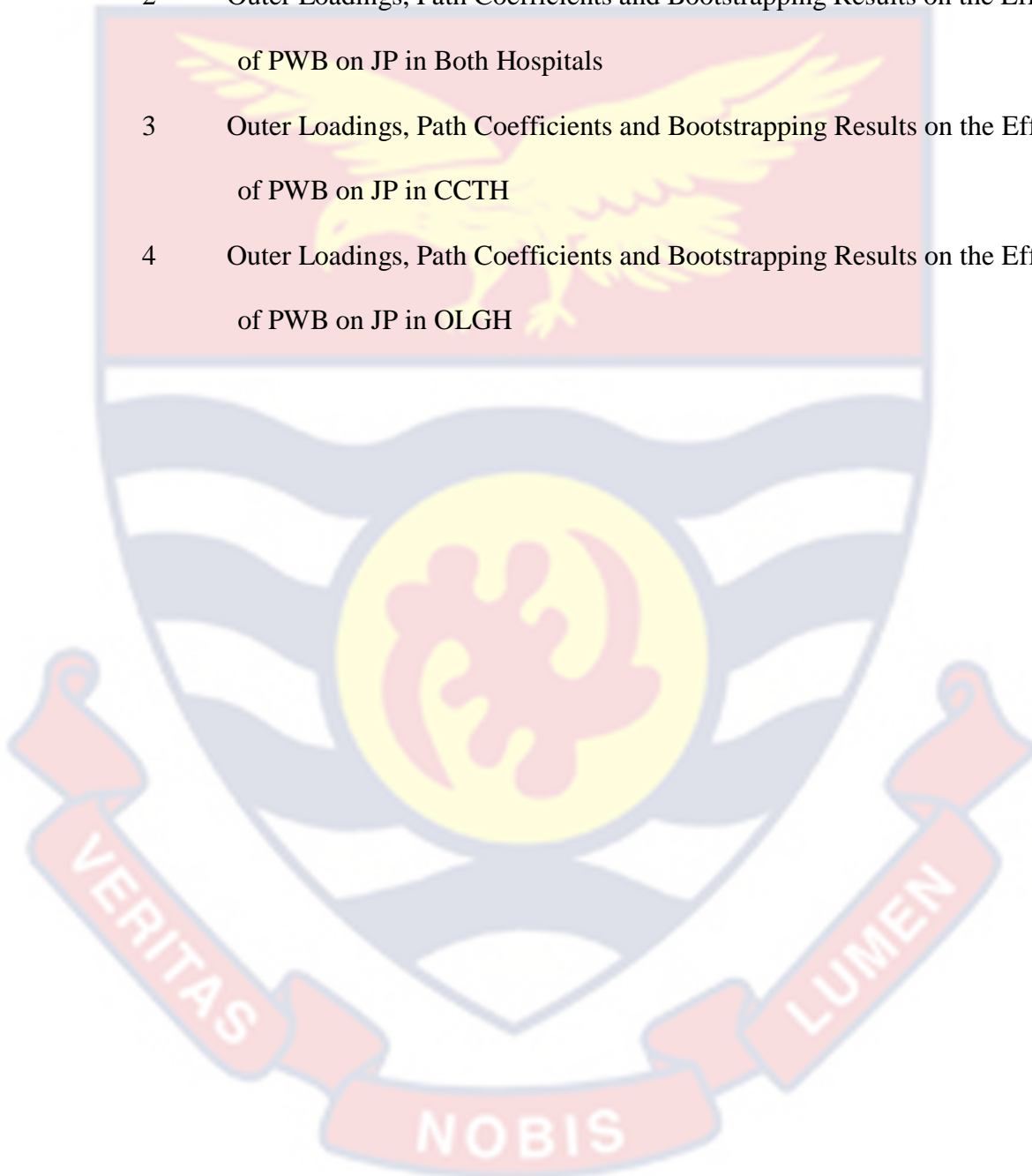


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LIST OF ACRONYMSThe background of the page features a large, faint watermark of the University of Cape Coast crest. The crest is a shield with a yellow eagle with outstretched wings in the upper section. The lower section is divided into three horizontal bands of blue and white. In the center of the shield is a yellow circle containing a pink and purple floral or sun-like symbol. Below the shield is a red ribbon banner with the Latin motto 'VERITAS LUMEN NOBIS' written in white capital letters.

AU	Autonomy
AVE	Average Variance Extracted
CA	Cronbach's Alpha
CCTH	Cape Coast Teaching Hospital
DV	Discriminant Validity
EM	Environmental Mastery
HTMT	Heterotrait-Monotrait Ratio
JD-R	Job-Demands Resource
JP	Job Performance
OLGH	Our Lady of Grace Hospital
PG	Personal Growth
PL	Purpose in Life
PPE	Personal Protective Equipment
PR	Positive Relations
PWB	Psychological Well-being
SA	Self-Acceptance
SDT	Self-Determination Theory
VIF	Variance Inflation Factor
WHO	World Health Organisation

CHAPTER ONE

INTRODUCTION

As firms continually strive to increase productivity and profit, recent attention has been drawn to the indisputable contribution of the human resource in achieving this. In consequence, ensuring the wellbeing of employees has become a priority to many business owners. Employee well-being is the state of an employee's physical, mental, and emotional health, as well as their job satisfaction and overall quality of life. It encompasses a wide range of factors, including work environment, job demands, work-life balance, social support, and personal health behaviors (Siu et al., 2020).

Psychological well-being, an aspect of overall well-being and the focus of this current study, has been described as an individual's ability to operate in a mentally stable and functional manner (Wright et al., 2007). Psychological well-being has been associated with performance outcomes especially in times of a pandemic (Usman 2017; Kundi et al., 2020). This study therefore examines the impact of psychological well-being on job performance of health workers amidst COVID-19 from a geographical perspective.

Background to the Study

The world recently experienced the devastation of the COVID-19 pandemic (WHO Report, 2020). The SARS-CoV-2 virus is the infectious respiratory disease known as COVID-19. It is mainly disseminated through respiratory droplets when an infected person talks, coughs, or sneezes. It can also be spread by touching contaminated surfaces and then touching one's face. From mild to severe, COVID-19 symptoms might include fever, coughing, exhaustion, bodily aches, and a loss of taste or smell. Additionally, some people

may feel disorientation, chest pain, or shortness of breath. Acute respiratory distress syndrome, pneumonia, and even death can result from COVID-19 in severe cases (WHO, 2021).

The impacts of coronavirus extend to millions of people across the globe (Caligiuri et al., 2020). The novelty of this pandemic, coupled with the absence of a permanent cure prompted governments to institute control measures such as lockdowns, wearing of nose masks, ban on social and community events, strict hand washing protocols, school and company closures, travel restrictions and social distancing while awaiting scientific research into a permanent treatment (Anderson et al., 2020). Scientists and other researchers commenced series of investigations into the nature of the virus and how its spread could be curtailed. Globally, the number of COVID-19 cases is around 616 million with a total of 6.5 million deaths. In Ghana, 169,100 cases have been recorded with 1,459 deaths (JHU COVID-19 Data Report, 2022).

The fear associated with this pandemic is overwhelming, not only affecting individuals but also societies at large. These fears may be attributed to the ease in the mode of transmission of the virus (Centers for Disease Control and Prevention, 2020). As established by Polizzi et al. (2020), new pandemics create severe stress, which is pervasive and difficult to manage when contrasted with daily stress. This implies that, unlike daily stress, new pandemics have the potential to cause significant psychological alterations in an individual's life and this could have certain negative consequences when it is not managed effectively.

Employees in the health sector, both medical and non-medical staff have either direct or indirect interactions with people from different towns and

nationalities, while working in enclosed areas and handling items used by numerous people. In the course of their duties such as, admitting patients, attending to emergencies and other casualties, administering drugs and performing laboratory tests, these health workers get exposed to the conditions of attracting coronavirus (Rudolph et al., 2020). Due to the nature of their job, the majority of health professionals are vulnerable to the emotional and psychological effects of COVID-19 infection. These emotional and psychological effects can be attributed to the fact that they are the first point of contacts of patients who visit their facilities (Bakker et al., 2019).

Since the beginning of the coronavirus pandemic, governments have responded to the threats the pandemic presents in multiple ways which saw some improvements. Although these measures saw significant improvements in curtailing the spread of the virus, in the view of Rudolph et al. (2020), observing these measures themselves have the potential to create some psychological stress. Rudolph et al. (2020) add that, employees may experience stress from a pandemic due to (a) the possibility of contracting the disease, (b) cognitive fear that they may infect their relatives and neighbours, (c) the weight of overwork caused by employee absences and organisational restructuring, and (d) uncomfortable social gaze as a result of working in a setting with high risks of contracting the disease. Such psychological stress can result in poor employee attitudes and behaviours and have a negative influence on their well-being as well as their job performance (Hon et al., 2013).

Employee well-being can be defined as the condition in which employees do not experience any psychological problems in their personal lives, such as anxiousness, restlessness, depression, or other similar conditions

(Ryff, 1995). Psychological well-being, which is an aspect of overall well-being and the focus of this study, is typically understood to be a person's ability to effectively manage their psychological health (Wright, 2010). In the words of Ryff and Keyes (1995), psychological well-being is a person's sense of positive functioning that is reflected in the capacity to enjoy life and to meet challenges with resilience, the pursuit of personal growth, a sense of meaning and purpose, and positive relationships with others.

Ryff (1989) defines psychological well-being as a multidimensional construct that includes positive functioning across six domains of life: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. The researcher emphasizes that psychological well-being is not simply the absence of negative psychological symptoms, but rather a positive state of being that reflects an individual's overall sense of satisfaction with life. Psychological well-being is therefore described as being non-static but rather a dynamic process that involves ongoing growth and development.

Better physical health, higher life satisfaction, and more resilience in the face of stress and adversity are just a few of the benefits of psychological well-being (Keyes, 2007) in the midst of COVID-19. Poor psychological wellbeing, on the other hand, is linked to a number of detrimental effects, such as worsened physical health, a higher chance of mental health issues, and a lower quality of life (Huppert, 2009). Psychological well-being of workers is as important as their physical, social and financial well-being (Ryan & Deci 2001). According to Kim et al. (2016), employee well-being is fundamentally rooted in a system of social interaction involving managers, workers, and coworkers.

As a result, support from an employee's social environment can both enable and limit employee well-being.

This suggests that employees' relationships with their bosses and colleagues lead to emotions of empathy, respect, and trust, all of which contribute to better a psychological well-being (Kim et al., 2016). In an era of a deadly pandemic which takes thousands of lives daily and limits the level of human interactions, it can be argued that the factors which improve psychological well-being in the work environment would be challenged, resulting in negative consequences for the individual, the immediate environment and general public (Çankır et al., 2018).

One adverse consequence of a disturbed psychological well-being is reduction in employee performance (Warr et al., 2018). Performance can be seen from two angles; employee performance and organisational performance. Whereas organisational performance measures how well an organisation attains its goals and objectives, employee job performance is more focused on the individual employee's output and how this should be aligned with the organisation's broader focus (Sanyal et al., 2018). Employee job performance is expressed as the ultimate output of a worker as well as an entire organisation (Oseiboakye, 2015). Thus, considering that performance of employees is a major concern for several organisations even amidst the pandemic, staff are still required to put up their optimum performance regardless of the issues surrounding the pandemic.

Previous literature reveal a great connection between employee well-being and job performance. For instance, Usman (2017) discovered that improved psychological well-being is beneficial to employee job performance

in companies in both projectized and non-projectized organisational structures. Similarly, Wright (2010) found a link between psychological well-being and job performance. The correlation of the linkage was 0.25 implying that 25% of the variation in employee performance is attributable to changes in psychological well-being. According to Serafini et al. (2020), psychological reactions to coronavirus might vary from despair or mass panic to pervasive sentiments of discouragement and frustration, which are associated with adverse consequences such as substandard work performance.

The COVID-19 pandemic has caused a number of adjustments in the workplace, making it more crucial than ever for employees to take care of their mental health in order to perform their jobs effectively. Healthcare professionals who reported higher levels of psychological well-being were more able to withstand the stress and anxiety caused by the pandemic, according to Lai et al. (2020). Resilience is a crucial component of employee well-being because it enables workers to handle stress and adversity better, which improves mental health outcomes and increases job satisfaction. Therefore, encouraging psychological well-being at work might increase employee resilience and aid them in better navigating the difficulties the pandemic presents.

Additionally, creativity and innovation are favorably linked to psychological well-being, which can be crucial during the pandemic when businesses must quickly adapt to new challenges. Higher psychological well-being among healthcare professionals was associated with better creativity and innovation during the pandemic, according to a study by Sin et al. (2020). Therefore, encouraging psychological well-being can improve organizational

outcomes through improved creativity and innovation in addition to the well-being of employees.

Theoretically, the Job-Demands-Resources Theory (JD-R theory) posits that every occupation has a set of characteristics which can be classified into two broad groups (job demands and job resources). The central assumption is that job strain and emotional exhaustion develop when job demands are higher than the job resources needed to accomplish the demands (Bakker & Demerouti, 2017). The theory holds that factors such as economic and industry-related problems, governmental laws, and technological advancements all have an impact on the levels of job demands and job resources. Therefore, adjustments to those outside variables result in shifting employee needs and resources, which have an impact on their wellbeing and performance (Brauchli et al., 2013).

Linking the theory to this current study, COVID-19 is an external factor which has affected every facet of individual and corporate life. This implies a variety of job demands and job resources may have been affected by the pandemic. For instance, the influence of COVID-19 on economic and social elements of life, in particular, indicate the loss of a variety of resources from several categories: (a) employer financial difficulties causing job instability which may jeopardize employees' financial resources and (b) social support from bosses and coworkers is threatened by changes in work schedules as well as social distancing (Chersich et al., 2020).

These changes, among others, are antecedents of emotional and psychological exhaustion. Experts claim that stressed out workers are more likely to have heavier workloads and less job resources (Bakker & Demerouti,

2017). In the end, there can be detrimental effects on workers' psychological health. Such negative impact on well-being potentially results in low level of employee performance (Bakker & Demerouti, 2017).

In Ghana, there have been few research on the psychological well-being of employees in general, and specifically the well-being of health workers during the pandemic. Since psychological well-being is linked to job performance outcomes for health workers, particularly nurses and midwives (Usman, 2017; Kundi et al., 2020; Nepomuceno et al., 2016; Dahlberg et al., 2018), it is necessary to investigate the relationship between psychological well-being and job performance of employees, especially from a geographical perspective to better understand the dynamics of factors that influence well-being. It is against this background that the researcher investigates the psychological well-being of health workers amidst the COVID-19 pandemic and how it influences their job performance.

Statement of the Problem

Key performance indicators of urban and rural hospitals dropped at the initial stages of the pandemic as compared to before (Ghana Health Service Report, 2020; Ghana Medical Association Report, 2020). A close observation of the health sector revealed that little attention had been paid to the psychological well-being of health workers amidst the pandemic. Based on the Self-determination theory which argues that employees perform better when their basic psychological needs (need for autonomy, competency and relatedness) are met, it is possible to extrapolate that, the neglect of psychological needs could have accounted for this shift.

From the period Ghana recorded its first case of COVID-19, health workers were the most engaged staff. Even during the period of lockdown and company closures, these health workers were actively engaged in their normal duties, offering series of education about the pandemic, tracking suspected cases and treating infected patients. Although physical protective mechanisms were put in place to limit their level of exposure to the virus, and some financial incentives were as well provided in order to motivate and reward them for their relentless efforts, little has been heard about how the issues concerning their psychological well-being have been handled.

As such, frontline health workers in Cape Coast Teaching Hospital (CCTH) embarked on a period of strike over neglect of their needs amidst the pandemic. As indicated by Fowler et al. (2009), workers involved in a strike experience higher levels of depression, anxiety, and lower levels of general mental well-being. This implies that health workers in CCTH may stand a higher risk of low psychological well-being amidst the pandemic as compared to other categories of workers. This necessitated the need to probe into the psychological well-being and job performance of CCTH health workers post-strike.

Since a vast body of research have linked impaired psychological well-being to negative effects on job performance according to previous studies (Hon, Chan, & Lu, 2013; Warr et al., 2018; Rudolph et al., 2020), it became relevant to investigate psychological well-being and its influence on the job performance of health workers considering the myriad of activities they carry out and their level of exposure to the conditions of contracting the deadly coronavirus.

Also, a study by Durizzo et al. (2021) revealed that rural residents in Ghana are less concerned about the pandemic. By implication, the lack of concern of rural residents could translate into low observance of the COVID-19 protocols thereby putting health workers in rural areas at a higher risk of contraction and its associated psychological issues. Considering that Our Lady of Grace Hospital (OLGH) was a major COVID-19 testing center for rural residents, established a quarantine unit, and also serves as referral hospital for several communities in the Asikuma-Odoben-Brakwa District, health workers in OLGH could be at a considerable risk of contracting the virus. This made it, an appropriate rural hospital for assessing the psychological well-being and job performance of rural health workers.

It is noteworthy that investigating the contextual variation of psychological well-being on job performance is important because findings from a study by Kahneman and Krueger (2006) revealed that the context in which a subject resides and each person's unique way of living affect their perspectives of well-being and output. This implies that the same disease (COVID-19) may have varying implications on workers depending on contextual factors such as geographic location. Further studies have also revealed a connection between neighbourhood traits and perceptions of well-being (Elliott et al., 2014; Toma et al., 2015; Winterton et al., 2016).

However, it remains unprecise, the extent to which psychological well-being and job performance vary among rural and urban health workers in Ghana particularly in light of the pandemic. This study therefore fills the gap of limited comparative studies on psychological well-being and job performance among

rural and urban health workers and provides a basis for future research, policy and practice.

Purpose of the Study

The study sought to assess the influence of psychological well-being on job performance of rural and urban health workers amidst COVID-19, and further examined the variation in the influence based on geographical location.

Research Objectives

The following research objectives were set precisely to achieve the purpose of the study:

1. To assess the psychological well-being of health workers at CCTH and OLGH amidst COVID-19.
2. To assess the performance of health workers at CCTH and OLGH amidst COVID-19.
3. To examine the influence of psychological well-being on job performance of health workers at OLGH amidst COVID-19 pandemic.
4. To examine the influence of psychological well-being on job performance of health workers at CCTH amidst COVID-19 pandemic.
5. To assess the differences in the effect of psychological well-being on job performance of health workers in OLGH and CCTH.

Research Questions

Objectives 1 and 2 gave rise to the following research questions:

- 1) What is the psychological well-being of health workers at CCTH and OLGH amidst COVID-19?
- 2) What is the performance of health workers at CCTH and OLGH amidst COVID-19?

Research Hypotheses

1. H₀: There is no statistically significant relationship between psychological well-being and job performance of health workers at OLGH
H₁: There is a statistically significant relationship between psychological well-being and job performance of health workers at OLGH
2. H₀: There is no statistically significant relationship between psychological well-being and job performance of health workers at CCTH
H₁: There is a statistically significant relationship between psychological well-being and job performance of health workers at CCTH
3. H₀: There is no statistically significant difference between the effect of psychological well-being on job performance of health workers at OLGH and CCTH
H₁: There is a statistically significant difference between the effect of psychological well-being on job performance of health workers at OLGH and CCTH.

Significance of the Study

This is a much-needed research at this time where the COVID-19 pandemic is still in existence. The research will shed light on the psychological well-being of nurses and midwives as they tirelessly discharge their duties, and how these psychological issues influence the performance of their jobs. The study will also provide a basis for policies on occupational health and safety issues and as well serve as a foundation for further studies on work performance and occupational well-being in Ghana and the rest of the world.

Delimitations

This study was conducted within the scope of examining the relationship between psychological well-being and job performance of nurses and midwives in Cape Coast Teaching Hospital (urban hospital) and Our Lady of Grace Hospital (rural hospital), both in the Central Region of Ghana. Therefore, health workers in this study is contextualized to refer to nurses and midwives in the two hospitals. The study excluded all other health workers who are neither nurses nor midwives at these hospitals at the time of the survey. The study utilized the quantitative approach to perform its analysis through the distribution of questionnaire.

Limitations

The study setting was based on hospitals in one geographical region (Central Region of Ghana), who may have similar characteristics. Therefore, it is possible that the results of this study may not be valid in other geographical settings. Additionally, the use of closed-ended questionnaires may have limited

respondents from expressing personal ideas and experiences outside the items in the survey questionnaire. There was also an associated risk that the subjective responses given by respondents may be untruthful.

Definition of Terms

Pandemic generally describes a disease that affects a wide geographical area such as several countries. In this study, the use of pandemic is contextualized to represent COVID-19.

Psychological well-being in this study refers to a state of happiness, health and prosperity in relation to the mental, emotional, and behavioural characteristics of a specified person or group of people.

Performance covers the act of carrying out or accomplishing a task or set of responsibilities.

Organisation of the Study

There are five chapters in this thesis. Chapter one presented the background and statement of the problem, the objectives of the study and a set of research questions and hypotheses. It also included the significance of the study, delimitations, limitations, definition of terms and the organisation of the thesis. Chapter two covered review of theoretical, conceptual, and empirical literature on psychological well-being and job performance. Chapter three detailed the research methods adopted for the study. Chapter four projected the results and findings of this study while Chapter five consisted of the summary, conclusions and recommendations as well as the possibility of extending this research in the future.

CHAPTER TWO

LITERATURE REVIEW

Introduction

In this chapter, the conceptual and theoretical assumptions underlying psychological well-being and job performance have been discussed. The chapter is divided into five broad sections. The first section focused on the theoretical underpinnings, the second section focused on the conceptual review of the main variables in the study. The third section looked at empirical studies while the fourth section provided a summary of the lessons learnt from the review. The fifth section presented the conceptual framework for the study.

Theoretical Review

Two theories underlie this study. They are: Job-Demands Resource (JD-R) Theory and Self-Determination Theory (SDT).

Job-demands resource theory

The major theory underpinning this study is the Job-Demands Resources (JD-R) theory. According to the JD-R theory, every occupation has a set of characteristics that may be divided into two broad categories: (1) job demands and (2) job resources. Each of these categories has specific features and predictive value (Bakker & Demerouti, 2014). The central assumption of the theory is that job strain and emotional exhaustion develop when job demands are higher than the available job resources (Bakker & Demerouti, 2014; 2017). The theory basically explains how the organisational environment impacts on employee well-being and performance, demonstrating that stress is a reaction to

an imbalance between an individual's demands and their available resources to meet those demands (Bakker & Demerouti, 2014).

According to proponents of the theory, job demands are characteristics that involve physical and/or psychological (cognitive and emotional) efforts or abilities to perform and are thus, connected with particular physiological and/or psychological costs. They are described as features of employment that require energy, such as workload, demanding tasks, problems with equipment, long working hours, time pressure and disputes (Bakker et al., 2014). Job demands are further classified into either hindrance job demands that impair performance (such as conflicts) or challenging job demands (such as workload and complexity) that enable employees to perform successfully (LePine et al., 2005). Although job demands are not necessarily negative, they might become job stressors when the accompanying resources necessary to accomplish a task are not sufficient (Messmann et al., 2017).

On the other hand, job resources are the elements of a job that help workers meet job expectations and accomplish their goals. Performance reviews, social support, decent working conditions, possibilities for progression, coaching and mentorship, and learning and development are a few examples of job resources (Bakker et al., 2017). These resources are motivating employment factors that offer meaning to employees and as well enable them to meet their core psychological requirements including, the need for competence, relatedness, and autonomy (Deci & Ryan, 1985).

Job resources could be personal resources or organisational resources. According to Bakker and Sanz-Vergel (2014), personal resources refer to people's ideas about their level of influence over their work surroundings. They

argued that, people who have high degrees of optimism and self-efficacy believe that good things will happen to them and that they can handle unforeseen circumstances. Such ideas enable people to tackle their job responsibilities more actively and effectively (Bakker & Sanz-Vergel, 2014). Organisational resources on the other hand, may include all tangible and intangible assets available to an organisation. They include financial, physical and informational resources available to an organisation (Othman et al., 2015).

According to the JD-R theory, employee well-being is influenced by the interactions between job demands and job resources in a unique and autonomous manner. Job demands, as indicated in the theory (Demerouti et al., 2001), may launch a health-impairment process if daily workload converts into chronic overload over time. In this situation, an employee's occupational expectations cause chronic tiredness, which may eventually lead to physical health issues (including cardiovascular diseases). Job resources on the other hand, are motivating and contribute positively to achievement of work goals by meeting and giving significance to people's basic needs (Schaufeli & Bakker, 2004). In accordance with the JD-R theory, stress and emotional weariness are frequent when job demands are greater than available job resources. On the other hand, abundant job resources can counteract the impacts of high job demands and boost engagement and motivation (Bakker & Demerouti, 2017).

The JD-R theory further suggests that job resources have a greater effect on motivation when job demands are high. Thus, when the work demands are extremely difficult, job resources become especially critical (Bakker & Demerouti, 2014). This approach is compatible with Hobfoll's (2001) conservation of resources theory that suggests that employees who lack

resources are vulnerable to losing even more resources. This is further emphasized by Ryan and Deci (2017) who argued that, when workers are subjected to a heavy workload and emotionally challenging situations, they can utilize their autonomy, abilities, and sense of prosocial effect to cope with these demands consistently and pick a proper strategy. Bakker et al., (2017) confirmed it in a study on Finnish teachers and dentists where findings revealed that job resources (such as appreciation, innovativeness, and skill variety) influenced employee well-being significantly when job demands (such as pupil misconduct, uncomfortable physical work environment) were high.

Further, the JD-R theory suggests that employees can affect their own work environment in one of two ways, depending on their occupational health and well-being: (1) stressed employees negatively influence their working environment, creating a cycle a loss cycle of demands and strain; or (2) employees with good well-being are engaged in their work and influence their working environment positively, inducing a gain cycle of job resources and work engagement (Bakker & Demerouti, 2014; 2017). The JD-R theory is particularly beneficial to organisations because it explains how the work environment influences employee well-being and performance, thereby providing a basis for organisational policies such as job design and job crafting. The JD-R theory also serves as a guide on how to motivate employees to enhance performance as well as how job demands can be handled in unpredictable times such as during a pandemic to achieve optimum employee performance.

The JD-R theory has been criticized by some authors (Schaufeli & Taris, 2014; Van Woerkom et al., 2016). First, the theory was criticized for its

epistemological status, the lack of a clear definition and distinction between demands and resources, and the issue of reciprocal causation (Schaufeli & Taris, 2014). The theory has also been criticized for focusing solely on personal resources and ignoring personal demands (Van Woerkom et al., 2016).

According to critics, the theory's applicability beyond the individual level is questionable. Additionally, majority of JD-R studies only take into account participants' views and do not capture objective needs, which results in usual methodological bias (Schaufeli & Taris, 2014; Van Woerkom et al., 2016).

The relevance of the JD-R theory to the current study is that, COVID-19 pandemic has had impacts on economic and social elements of life, which could lead to loss of personal and organisational resources. Health workers are highly exposed to such losses due to factors such as increase in workload, demanding tasks, organisational restructuring as well as loss of social support from co-workers, family and friends (Chersich et al., 2020; Rudolph et al., 2020). These changes, among others, are antecedents of stress and emotional exhaustion. The JD-R theory emphasizes that stressed employees are likely to have higher job demands and less job resources which could result in negative implications for psychological well-being and job performance. On this basis, the researcher believes that the JD-R theory would be the most appropriate theoretical foundation for this research.

Self-determination theory

The supplementary theory for this study is the Self-Determination Theory (SDT). The theory was propounded by Deci and Ryan (1985). The theory has since been applied in several research works across disciplines such

as, education, psychotherapy, work motivation and health (Deci & Ryan, 1985; Deci & Ryan, 2017). The basic assumption of the theory is that, employee well-being and performance are determined by the level of motivation employees have for their job activities. Thus, an employee may be more committed, passionate and satisfied with job activities if they gain inner satisfaction by the things they do (Deci & Ryan, 1985).

Self-determination is an individual's ability to manage their own life through their own decisions and choices (Deci, 1975). This ability plays a crucial role in attaining psychological well-being, because according to the SDT theory, three innate and psychological needs influence people's decision to accept changes or growth. These three psychological needs are the need for autonomy, competence and relatedness (need for connection). Autonomy refers to the desire to be in absolute control of one's behaviours and goals (de Charms, 1968; Deci & Ryan, 1985). Competence looks at possessing the relative skill that will enable a person to complete tasks efficiently (Deci, 1975; Deci & Ryan, 1985). The need for relatedness, borders on having a sense of belonging and attachment to others in a community (Baumeister & Leary, 1995; Deci & Ryan, 1985). In addition, research has found that workplaces that support these three psychological needs facilitate motivation and enhanced performance (Deci & Ryan 2001).

According to Ryan and Deci (1985), there are two key assumptions of the theory. The first assumption is that, the need for growth drives behaviour. This means that people will continually engage in behaviours if they perceive those behaviours as consequential to their growth. In other words, the desire to gain mastery over tasks and challenges can inspire people to act in ways that

will enable them to grow in such regard. The second assumption holds that, autonomous motivation is very crucial in self-determination. Autonomous motivation refers to the desire to perform an activity because of an inherent satisfaction rather than because of an external force (Deci, 1975). Thus, whereas, extrinsic motivators such as money and rewards may play a role in increasing performance, the self-determination theory focuses on internal sources of motivation (Deci & Ryan 2001).

The self-determination theory suggests that those who believe they can make a difference at work are more dedicated and driven. However, managers and leaders may create this sense of self-determination by giving employees a voice in decision making, providing staff with responsibilities, giving relevant feedback, support and encouragement (Forner et al., 2020). Also, extrinsic incentives provided by employers should be used cautiously as too many rewards can demoralize inherent motivation (a phenomenon known as the over-justification effect), while too few can leave employees feeling unappreciated (James, 2005). The theory is beneficial to organisations in the sense that it provides the basis for the development of policies, procedures, and settings that promote employee motivation, well-being and high-quality performance. Also, it is significant to society because it empowers people to have control over their decisions and lives, and this has an influence on their intrinsic drive (Wehmeyer, 1996).

Despite the tremendous contribution of the theory to society and academicians, the theory has been criticized for paying too much attention to intrinsic motivation (Gerhart & Fang, 2015). Intrinsic motivation, according to critics, is irrelevant in employment and that a more critical analysis of the work

environment would reveal a greater impact of pay-for-performance practices on motivation, creativity, and performance rather than intrinsic factors. This suggests that, intrinsic motivation alone may not be sufficient in enabling an employee to remain competitive.

The self-determination theory is relevant for this study because in assessing the level of psychological well-being of health workers, it is important to first recognize the basic psychological needs of these workers. An understanding of these needs will enable the researcher to fully examine whether or not they have been addressed and the implications thereof. The context for comprehending the three basic psychological requirements, thus; need for competence, autonomy, and relatedness are projected in the self-determination theory (Deci, 1975; Deci & Ryan, 1985; 2001). Therefore, in practice, every policy introduced in a workplace is likely to support or obstruct these basic psychological requirements.

An organisation that aims at improving its work environment, employee well-being and performance could assess organisational policies in the light of (a) whether they allow employees to gain competencies, (b) experience autonomy/freedom in taking initiatives, and (c) experience a sense of belonging and respect from both colleagues and superiors (Mathauer & Imhoff, 2006). Linking SDT to the JD-R theory, it can be seen that the three psychological needs in SDT are classified as job resources in the JD-R theory.

Conceptual Review

This section focuses on reviewing the major concepts underlying the study. Broadly, three concepts have been reviewed: (a) the concept of well-being (b) psychological well-being and (c) concept of job performance. The

review of each concept covers its definitions, dimensions, how it is measured, as well as its relationship with other variables in the study.

Concept of well-being

Psychological well-being can best be understood when the concept of overall well-being is first understood. Over the past few years, the concept of employee well-being has been identified as an evolving concern for workers, managers, and societies (Burke et al., 2016; Rothmann, 2008; Holman, 2002). This may be explained by previous studies that assert that employee health and well-being is among the determinants of organisational productivity and achievement (Bakker et al., 2019; Turban & Yan, 2016). Generally, well-being is described as the absence of worry, discomfort, sadness, or other psychological illnesses in a person's life (Ryff, 1995). Well-being constitutes a state of health, happiness, and prosperity. Therefore, a person's well-being is what is ultimately good for this individual as well as what is in this person's self-interest.

In the domain of human resource management, sustaining employee well-being has been acknowledged with increasing relevance in several workplaces (Kowalski et al., 2014). The evidence suggest that reduced employee well-being may have negative impacts on individual employees and businesses (Goetzel et al., 2002; Loretto et al., 2009). A growing body of research indicates correlations between employee well-being and organisational effectiveness. (Truss et al., 2013; Van De Voorde et al., 2012; Wright & Huang, 2012). For instance, poor well-being has been associated with low levels of individual engagement and low levels of organisational performance (Christian et al., 2011; Schaufeli, 2013).

Other studies have transitioned from a materialistic perspective on well-being to a more holistic perspective that takes into account people's living conditions that they believe are crucial to their quality of life (Lambert et al., 2020; Larson et al., 2016; Boreham et al., 2013;). According to these studies, a person's well-being is influenced not only by their access to material resources that affect their ability to lead decent lives, but also by their access to personal resources that allow them to have normal relationships, social connections, confidence, and community networks. This implies that, well-being is influenced by a complex network of social capacities that enable people to enhance and maintain their lives (Boreham et al., 2013).

Generally, well-being can be context-free or context-specific. Context-free measures of well-being are broad and relevant to day-to-day living (Warr, 1990). Context-specific well-being however, relates to a particular setting and are often helpful in determining variations in performance of employees (Watson & Tellegen, 1985; Watson et al., 1988). Specifically in this study, well-being will be looked at within the organisational context. However, well-being is also seen as a multidimensional phenomenon. For instance, according to Ryan and Deci (2001), well-being has four dimensions.

The first dimension is physical well-being, which is described as the capacity to maintain a good quality of life that allows a person to approach daily schedules without experiencing severe fatigue or physical stress. According to Strout and Howard (2012), physical strength, exercise, fitness, and sleep are the main components of physical well-being. The second dimension is financial well-being. The capacity to maintain one's current and future intended living standards and monetary demands is referred to as financial well-being

(Netemeyer et al., 2017). Social well-being is the third dimension of well-being identified by Ryan and Deci (2001). It entails the ability to communicate, develop meaningful relationships with others and maintain a supportive network (Strout & Howard, 2012). In simple terms, social well-being is having a feeling of communal connectedness and making a contribution to that society. The last dimension of well-being, which is the focus of this study, is psychological well-being.

Psychological well-being

As one of the broad dimensions of general well-being, psychological well-being has been defined by authors severally. For instance, Wright et al., (2007) define psychological well-being as an individual's ability to operate in a mentally stable and functional manner. They describe psychological well-being as a state of mental and emotional health that allows an individual to recognise their own potential, manage everyday challenges, work efficiently, and give back to their community. This means that, psychological well-being is not just the absence of emotional stress for a person but also the ability to identify and prioritize what really matters to that individual.

Similarly, Deci and Ryan (2001) define psychological well-being as a state of happiness founded on a person's experiences. They argue that psychological well-being can be viewed from two perspectives: hedonic component and eudaimonic component. The hedonic component is associated with experiences of happiness, achievement of pleasure and avoidance of pain (Kahneman et al., 2006). Hedonic well-being is also concerned with how an individual balances positive and negative thoughts and emotions. For instance,

studies on job satisfaction focus on hedonic aspect of psychological well-being. The eudaimonic component of psychological well-being on the other hand, relates to finding the meaning of life, self-actualization and the realization of human potential. Studies on employee commitment and engagement in organisations, for instance, place emphasis on this component.

The preceding definitions point to the fact that psychological well-being generally relates to the quality of life of a person and the ability to live a life devoid of fear, anxiety or any form of mental strain. Although the term psychological well-being is often used synonymously with happiness, it is evident from these definitions that happiness is actually a subset of psychological well-being. Thus, it is one of the several components that interplay to enhance a person's psychological well-being. Psychological well-being is the broader umbrella which encompasses factors such as interactions with others that are constructive, self-mastery, independence, a sense of drive and significance in life, and personal development (Ryff, 1995).

The effectiveness of a person's total psychological functioning must be taken into consideration when assessing psychological well-being (Gechman & Weiner, 1975; Jamal & Mitchell, 1980; Martin, 1984; Sekaran, 1985). However, most studies often place emphasis on the hedonic component of psychological well-being, ignoring the eudaimonic component. For example, Holmes (1991) and Wright and Bonett (1997) argue that unhappy employees are more prone to having low self-esteem and reduced motivation at work, without placing any focus on their desire for a more fulfilled life.

Other researchers have investigated the financial and non-financial aspects of poor psychological well-being among employees (George, 1992;

Quick et al., 1997). For instance, research has linked dysfunctional psychological well-being at work to depression, low self-esteem, hypertension, alcoholism, and drug abuse (Ivancevich & Matteson, 1980). It can be said that the relationship between psychological well-being and employee performance is valid (Wright et al., 1993) given that these factors are connected to reductions in work outcomes (Quick et al., 1997).

Two most important studies that confirmed this association are the studies by Wright et al. (1993) which showed a significant link between psychological well-being and worker performance. According to Wright et al., supervisors' evaluations of performance were favourably correlated with psychological well-being. Employee well-being and job performance were found to be significantly correlated in a second study by Wright and Bonett (1997).

For the purpose of this study, psychological well-being is defined in line with the definition by Burke et al. (2016) which describes psychological well-being as a positive state of social, physiological, and mental condition. That is, psychological well-being in the context of the study is not limited to the mere absence of sickness or sadness but the complete state of physical, emotional, social and mental wellness. Just as expressed by Edwards (2005), good mental and social health are indicators of psychological well-being. According to the author, when an individual has a positive view of life, positive relationship with others, is satisfied with happenings in life and keeps up with a winning mentality, such individual can be described as having good psychological well-being.

COVID-19 and the psychological well-being of employees

Research has established that the work environment, work structure, and job-related behaviours may all have an impact on the mental health and psychological well-being of employees (Giorgi et al., 2020). Structural adjustments in these work arrangements pose a recurring effect on the mental health and performance of employees (Rajkumar, 2020). Arguably, the COVID-19 pandemic has offered significant changes in the workplace, shifting work practices to what is now referred to as the 'new normal'. As expressed by Rajkumar (2020), the various pressures that workers endure throughout a pandemic can have significant consequences on their psychological well-being as well as other facets of the workplace.

Due to the nature of COVID-19 transmission, the implementation of preventive measures continually generate a variety of mental issues (Zacher & Rudolph, 2021). For example, according to Rudolph et al., (2020), the weight of wearing PPEs, the anxiety of becoming infected and transmitting it to family members, the tension between following safety protocols and wanting to offer support, longer workdays, multitasking, and the stigma associated with working in high-risk settings like hospitals can all harm employees' mental well-being. In response to this, employees may exhibit a variety of behavioural, physical, and psychological reactions such as changes in mood, decreased motivation, depressing thoughts, and isolation (World Health Organisation Report, 2020).

Although the pandemic poses a universal threat to all occupational categories, employees such as health workers may be considered as high-risk employees (Chersich et al., 2020). According to Tam et al., (2004), the healthcare industry is subjected to extreme strain, which has a negative impact

on working life during acute health crises. During a pandemic, the number of patients increases significantly, putting additional burden on health personnel and degrading healthcare resources.

Furthermore, because of their high exposure to patients, health workers sense a higher risk for themselves, which contributes to their stress (Shiao et al., 2007; Chen et al., 2010). Infected patients and healthcare personnel are the groups most likely to face discrimination and stigma. The stigma associated with coronavirus patients increases the likelihood of gloomy thoughts, sleep disorders and stress-related disorders. Research has also proven that experiencing stigma and discrimination from society may result in a loss of productivity and income, exhaustion, inner distress, emotional tiredness, anxiety, and depressive symptoms (Li et al., 2021). These have serious psychological implications for the well-being of the health worker (Chersich et al., 2020; Ramaci et al., 2020). As a result, a link is established between COVID-19 and the psychological well-being of health workers

Measuring psychological well-being

The Ryff Psychological Well-being (PWB) Scale is one method of measuring psychological well-being. Ryff (1989) developed the Six-Factor Model of psychological well-being, which highlights six elements that contribute to a person's psychological well-being, satisfaction, and happiness. Psychological wellbeing is treated as a construct with six sub-scales which involve autonomy, environmental mastery, positive relations, personal growth, purpose in life and self-acceptance. Each element is rated and a higher total

score suggests greater psychological well-being, and vice versa. A brief explanation of each of the dimensions is discussed subsequently.

Autonomy

According to Ryff (1989), autonomy is expressed when an individual is able to assess issues internally. Autonomy refers to efforts to be independent in a social setting and establish thoughts and codes of behavior according to personal standards in spite of social pressures. Thus, an individual's personal evaluation of self and other issues is based on personal standards rather than external factors. Individuals with high levels of autonomy are generally self-determined, independent and self-sufficient and can control his or her conduct without relying on societal forces (Deci & Ryan, 1987). Persons with low levels of autonomy on the contrary, demonstrate the desire for approval by other people. Christopher (1999) adds that, autonomy connotes an ability to take personal decisions, possess internal locus of control, be individualistic and regulate one's own behaviour.

Environmental Mastery

Environmental mastery comprises an individual's ability to shape the environment and take advantage of available opportunities to meet personal needs. According to Ryff and Singer (1998), an individual who is able to select or build an environment suitable for his or her personal demands can be described as having mastery over the environment. The authors describe maturity as a basic requirement for developing environmental mastery. Individuals with high degrees of environmental mastery are able to regulate both internal and external activities that surround them.

Such persons take advantage of opportunities in the environment and can regulate external activities. This includes managing daily affairs and creating

situations that benefit personal requirements (Perron, 2006). Individuals with low levels of environmental mastery on the other hand have difficulties in adjusting environmental issues in a way that will be conducive for them. Environmental mastery, according to Ryff (1989), is the ability of an individual to create or pick an environment that is suitable with his or her personal and psychological conditions.

Personal Growth

Personal growth or development is described as being conscious of your abilities, striving to enhance your skills, and being open to new experiences (Eldeleklioglu et al., 2010). Also, Ryff (1989) defines personal growth/development as the ability of the individual to build his or her potential. Personal growth implies a conscious effort to evolve, solve one's own problems and harness talents and capabilities. Psychological well-being enhances an individual's potential to develop, grow, and improve all aspects of a person's life (Ryff, 1989; Ryff & Keyes, 1995). Personal development is the ability to continue progress on a personal basis (Caspi et al., 2005).

Individuals experiencing growth are open to new experiences, ready to take up challenges and continually seek greater heights rather than depend on previous achievements (Robitschek, 1998). High scores project that the respondent takes advantage of opportunities to enhance current circumstances. Individuals with low personal growth reveal slow or no improvements in life.

Positive Relations

Ryff (1989) described positive relations as strong feelings of empathy and affection that are developed with others in a clear and consistent manner. Positive relationships are concerned with establishing and sustaining close

friendships with various people, as well as empathising with and caring about their happiness. Positive relations include establishing sincere, trusting interpersonal relationship with others in a way that builds loyalty (Ryff & Singer, 1998). Individuals with good positive relations engage in quality interactions and demonstrate better understanding and acceptance of people (Tropp, 2009). Such persons empower others and show affection towards the emotional needs of others. High scores suggest that the respondent engages in meaningful interactions with others, such as reciprocal empathy, closeness, and affection. Those with poor relational skills often lack empathy, show no commitment in friendships and may be self-centered (Ryff & Singer, 1998).

Purpose in Life

According to Ryff (1989), purpose in life entails having a sense of focus and fulfilment in life. Individuals with purpose in life perceive they are significant to their immediate community and to the world at large. Such individuals believe that their goals, desires and dreams have the potential to influence the world greatly. Purpose in life can be linked to finding meaningfulness in the life of an individual. This meaningfulness relates to a person's past, present and future life (Schnell & Becker, 2006). Purpose in life often influences a person's career choice and motivation. High scores indicate that the respondent is goal oriented and believes that life has significance. Persons who score low in this component can be described as lacking a clear purpose, drive or direction in life (Ryff & Singer, 1998).

Self – Acceptance

Ryff (1989) defines self-acceptance as having a positive attitude towards oneself. Self-acceptance means an individual's appreciation of all of their attributes, positive or negative. Self-acceptance reflects in all other dimensions

of psychological well-being (Shepard, 1979). Thus, an individual's acceptance of their strengths and weaknesses predict outcomes of zeal, confidence or otherwise. In determining one's degree of self-acceptance, Ryff and Singer (1998) indicated that those with higher levels of self-acceptance admit to their strengths and shortcomings and are willing to improve upon themselves. On the other hand, individuals who have lower levels of self-acceptance are dissatisfied about their past experiences, are often unhappy about some aspects of their personality, may suffer inferiority complex and low self-esteem and in extreme situations, desire to be someone else.

Employee Job Performance

Employee job performance refers to how employees behave and carry out the job tasks prescribed in their job description (Bakker et al., 2010). Britt and Jex (2014) define job performance as the set of attitudes exhibited by workers on a daily basis. Similarly, Brown and Arendt (2010) describe job performance as the behaviours of employees towards their job and how effectively they are able to complete their tasks. These definitions portray job performance as an input-output process where employees exert efforts to yield certain outcomes either positive or negative.

As explained by Cooke (2013), job performance can be seen from two angles; job relevant behaviours and work outcomes. Whereas job relevant behaviours encompass the efforts employees put in their jobs, work outcomes reflect the quality and quantity of work done. In this case, job relevant behaviours are job inputs and work outcomes are job outputs. However, Cardy and Leonard (2014) argue that job performance cannot be simply classified into

inputs and outputs but rather on the basis of whose perspective job performance is being considered. According to the authors, whereas supervisors view job performance as the outcomes of various activities performed by the employees, employees view job performance as the daily process of completing tasks and exhibiting work talents.

According to Jayaweera (2015), an assessment of individual employee performance should focus on level of job effectiveness and quality of work. The author further posited that the proficiency in carrying out a person's duties and the ability to perform these duties are potentially affected by workplace factors such as work structure, teamwork and role conflict. However, Johari and Yahya (2016) believe that the ideal way to assess employee performance is through the combination of task-related variables and expected work behaviours, or through the use of financial metrics. They also stated that employee job performance might be evaluated on an absolute scale, a scale of comparison, or based on specific results like sales or productivity.

According to some studies (Oseiiboakye, 2015; Onyekwelu et al., 2018), performance can be seen from two angles, that is, employee performance and organisational performance. Whereas organisational performance is the degree to which an organisation achieves its goals and objectives. Employee performance, on the other hand, is a more subjective term referring to an individual's output, which must be in line with organisational goals to be accepted and valued (Ayers, 2015). This explains that a culmination of individual employee performances would reflect the broader organisational performance (Oseiiboakye, 2015). Thus, an attempt to increase an employee's

performance will play a crucial role in achieving higher organisational performance (Riyanto, 2017).

Kuranchie-Mensah (2016) opines that a worker's output is a combination of skills, effort, capacity, motivation and opportunities that may be prescribed by the demands of the job. According to Riyanto et al. (2017), another definition of performance is the result that an employee achieves under the evaluation that is applied to the job in question. They believed that performance is a record outcome attained after employee performance appraisals within a specific time period. In conclusion, each employee individually contributes to the operation of the hierarchical unit and, consequently, the entire company. Overall performance will be impacted if a hierarchical unit or a worker's performance lags behind over an extended period of time.

Businesses place great importance on the performance of their employees. Often, performance is equated to efficiency and effectiveness (Neely et al., 1995). Thus, the job correlated duties required of an employee and the effectiveness in performing predict the performance of the employee. Similar to Hellriegel et al. (1999), employee job performance is described as the degree of a person's professional accomplishment after the individual has exerted some efforts. However, Whetten et al., (1995) argued that although performance is ultimately an individual phenomenon, other external variables have the potential to influence performance. This is in line with Seyfarth's (2005) perspective of employee job performance where the concept was described as a function of employee knowledge and skill, employee enthusiasm and the environments of the working place. It was argued that, workers will only

be motivated to perform to their full capacity when these underlying external factors are satisfactory (Seyfarth, 2005).

Several factors within and outside the workplace can affect employee job performance. For instance, according to Hellriegel et al., (1999), the goal orientation of employees, leadership style and level of job satisfaction have a great influence on employee outcomes. They added that pay and other compensation issues also affect performance in that regard. Diamantidis and Chatzoglou (2018) posited that other factors that affect employee performance include employee competencies, work standards, knowledge and expertise, feedback, and motivation. In addition to these factors, Lau et al., (2017) posit that healthy organisational climate promotes job performance. Thus, employees perform higher in innovative, creative and friendly workspace.

Dimensions of job performance

Several dimensions of job performance can be found in literature. For instance, Borman and Motowidlo (1993) identified task performance and contextual performance. Task performance is defined as the extent to which workers effectively participate in the job responsibilities explicitly indicated in their job description. These job duties are mainly the production of materials or provision of services. Task performance also relates to an organisation's core activities such as planning and directing (Borman & Motowidlo, 1993).

This implies that task performance relates to the efficacy with which job incumbents conduct activities that contribute to the achievement of organisational goals either directly or indirectly. As a result, administrative decisions (such as promotions, salary raises, and terminations) are often based

on an employee's degree of task performance. Although supervisor-subordinate appraisals are often used to measure task performance, objective indicators of task performance can be gathered in some positions.

Meanwhile, contextual performance is defined as the degree to which organisational setting contributes to organisational effectiveness (Motowidlo, 2003). For instance, measures of contextual performance can emerge from the level of enthusiasm demonstrated by employees in conducting themselves within the organisation as well as their problem solving initiatives. Contextual performance includes actions that endorse, promote, and defend business objectives. Such attitudes extend to engaging in organisational politics and promoting a favorable organisational image (Borman & Motowidlo, 1993).

According to Organ and Ryan (1995), organisational citizenship behaviour is another dimension of job performance. Organisational citizenship behaviours are actions that are not technically part of a worker's job description, but are yet advantageous to the organisation as a whole or to particular individuals within the workplace (Organ & Ryan, 1995). Engaging in organisational citizenship behaviours is frequently described as going over and above an employee's basic function (Podsakoff et al., 2000). Organisational citizenship behaviours include volunteering to assist coworkers, showing concern for the welfare of colleagues and offering a helping hand to other workers.

Robinson and Bennett (1995) posit that job performance could take another dimension which may not always be beneficial to an organisation. They argued that employees could engage in counterproductive work behaviour which is defined as any voluntary activity that breaches key organisational rules,

endangering the organisation, its members, or both. They distinguished between two types of counterproductive work behaviours: (a) deviance behaviours aimed at the organisation and (b) deviance behaviours directed towards other employees (Robinson & Bennett, 1995). Rather than adding to the organisation's aims, these behaviours directly contradict them. Counterproductive work behaviours are simply unprofitable to the well-being of the organisation (Rotundo & Sackett, 2002).

In research by Campbell (1993), eight dimensions of job performance were identified. These dimensions are: (a) work-specific task proficiency, (b) non-work-specific task proficiency, (c) demonstrating effort, (d) maintaining personal discipline, (e) facilitating peer as well as team performance, (f) written and oral communication, (g) management and administration duties; and (h) supervision and leadership. According to Campbell (1993), job performance is a combination of an employee's skills, attitudes and conduct within an organisation. As a result, job performance is dependent on the employee's own actions rather than those that are constrained by the employee's environment. This suggests that an employee's personal characteristics play a major role in performance as compared to organisational factors.

For the purpose of this study, three out of the four dimensions of job performance proposed by Koopmans et al., (2014) will be used. The dimensions are task performance, contextual performance and adaptive performance. The fourth dimension which is counterproductive work behaviour will be excluded.

Task Performance

Koopmans et al., (2014) describe task performance in line with previous writers (Borman & Motowidlo, 1993; Campbell, 1993). Task performance

refers to how effectively a worker completes assigned tasks within a business. Terms such as work-specific task proficiency, in-role performance, and technical proficiency are used in describing task performance. This relates to Campbell's (1993) dimensions of job performance, where Campbell defines task performance as the ability to accomplish both work-specific and non-work-specific tasks. Koopmans et al. (2014) stated that, some significant indicators for evaluating task performance include planning and organizing work, quality of work outcomes, being result-oriented and ensuring efficiency.

Contextual Performance

Koopmans et al., (2014) assert that job performance is no longer regarded to be solely based on task performance. Employees are expected to do more than what is explicitly stated in their job descriptions in an increasingly competitive job market. Thus, contextual performance, defined as actions that contribute to the social and psychological well-being of the organisation, is increasingly gaining significance (Borman & Motowidlo, 1993). Six out of the eight components of Campbell's framework for measuring work performance; showing initiative, upholding self-discipline, fostering individual and group productivity, verbal and written communication, managing, supervising, directing and leadership, can all be regarded as contextual performance, according to Koopmans et al. (2014).

Among the instances employees offer contextual performance in the work setting include offering voluntary help, strictly observing organisational protocols, building group cohesion with fellow workers, and a variety of other discretionary beneficial actions (Koopmans et al., 2011). These efforts are suggested to improve the psychological environment by enhancing meaningful

social networks. Contextual activities are significant because they shape the institutional, and psychological environment that play an essential role for task activities and processes. Key traits for assessing contextual performance include taking initiative, embracing and growing from feedback, cooperating with others, and effectively communicating (Koopmans et al., 2014).

Adaptive Performance

Adaptive performance refers to an employee's ability to embrace and accept any possible changes that occur in the work environment. That is, a worker's proficiency in adjusting to either pleasant or unpleasant modifications in work duties or within the work environment (Koopmans et al. 2014). The level of adaptive performance of a person is determined by how well they adjust to changes in a work system. Learning new tasks, technology, and processes; adjusting to a new culture, new personnel, and the physical environment; coping with complex or unexpected work situations; and developing innovative alternatives to challenges are some examples of adaptive work performance behaviours (Koopmans et al. 2014).

In this current study for instance, COVID-19 is recognized as a novel situation. Since its emergence, it is now more crucial than ever for workers to adapt to the changes in their work environment due to the fast-changing effects of work practices and technology. Significant indicators for assessing adaptive performance are: ability to deal with uncertain and unpredictable work situations; ability to adjust work goals when necessary and creativeness in proposing solutions to novel or difficult problems (Koopmans et. al. 2014).

Measuring job performance

It is important to evaluate job performance with objective indicators such as output records, number of days of engaging employees in active work, counts of required acts, or subjective evaluations such as quality of work done by the employee (Bakker et al., 2010). Although these approaches give valuable information, they are not able to capture the complexity and dynamics of attitudes that constitute the performance of employee duties (Koopmans et al., 2014). As a result, Koopmans et al. (2014) suggest that job performance should be treated as a construct which has several indicators. Therefore, to measure job performance, its individual indicators should be measured objectively. The several aspects of an employee's performance can be evaluated using indicators that properly and explicitly characterize each aspect.

According to Koopmans et al. (2014), significant task performance indicators include quality of work, ability to plan and organise work, being result-oriented, ability to prioritize and efficiency of work. Similarly, criteria for measuring contextual performance are separated into two categories for practical reasons. They include indicators at the interpersonal and organisational levels. Four key contextual performance indicators have been found at the interpersonal level; taking initiative, accepting and learning from feedback, collaborating with others, and communicating effectively. Furthermore, four major contextual performance indicators discovered at the organisational level are: showing responsibility, being customer-oriented, being creative and taking on challenging job tasks (Koopmans et al., 2014).

For adaptive performance, there are six main indicators for employee work performance. These include being resilient (and managing stress,

challenging circumstances, and adversities), providing innovative solutions to unique, challenging problems, having up-to-date knowledge and abilities, handling complex and unpredictable work situations, and modifying work objectives when necessary (Koopmans et al., 2014).

Relationship between psychological well-being and job performance

Fundamentally, it is perceived in occupational health psychology that happy workers perform better comparative to unhappy workers. This assertion is mostly drawn from the Happy-Productive Worker Hypothesis which projects that employees who are happy tend to be productive than unhappy employees (Wright & Cropanzano, 2007). To contextualise happiness, Judge et al. (2001) posits that happiness in the work setting is defined as job satisfaction and psychological well-being.

By implication, the Happy-Productive Worker Hypothesis establishes a direct connection between the psychological well-being of workers and their level of job performance. Also, theoretical and empirical data indicate that promoting psychological well-being is an effective means of enhancing performance in organisations (Kim, 2014; Peng et al., 2011). According to the findings of a study by Rego (2009), psychological well-being of employees explains 23% of the variance in individual job performance ratings. Also, Kaplan et al., (2009) discovered a predictive connection between well-being and performance. The current study therefore, has the tendency to demonstrate the relative importance of psychological well-being in performance prediction.

An extensive collection of cross-sectional survey data reveals that happy employees: portray a better lifestyle than unhappy people, are usually more

productive and socially involved, and have higher wages (Denier, 2000; Judge et al., 2001). According to Ryan and Deci (2001), individuals with high levels of subjective well-being exhibit self-improving attitudes and are enthusiastic about higher achievements as compared to individuals with low subjective well-being, implying that positive emotions can lead to positive perspectives, which can lead to higher performance outcomes.

Empirical Review

Empirical review on psychological well-being during COVID-19

Meyer et al. (2021) conducted a research on employee psychological well-being during COVID-19 pandemic. It was a longitudinal study whose objective was to expand the JD-R perspective by determining the relationship between changes in work-related demands and job resources during the pandemic, and its resulting impact on psychological well-being of employees. The quantitative research approach was used and data was gathered by publishing a link on multiple platforms where many institutions had access.

Analyses was conducted using R Version 4.0.2 (R Core Team, 2020). Their findings indicated that the introduction and easing of lockdown measures had effects on emotional exhaustion, and that women with children who work from home where childcare is unavailable were especially exhausted. However, job autonomy and partner support mitigated some of these effects. In sum, women's psychological well-being was more strongly affected by the pandemic than the psychological well-being of men.

Adikaram et al. (2021) also researched on 'navigating the crises of COVID-19 in Sri Lanka'. The aim of the study was to examine the experiences

of human resource professionals (HRPs) in managing crises posed by the COVID-19 pandemic. Qualitative research methodology was employed where in-depth interviews were conducted with twenty-four (24) human resource professionals of different industries. The findings indicated that HRPs had navigated through five phases of the crisis described as (a) anticipatory; (b) crisis; (c) adjustment; (d) rebounding; and (e) continuance or reverting to old ways, struggling with many decisions and actions.

The periods that companies took to navigate these different stages and the success of how they faced the pandemic mainly depended on factors such as the level of preparedness, level of psychological wellbeing, nature of the industry, availability of resources, and role of the HRPs. Learning from the experiences of the HRPs and the phases they have navigated through will help to successfully manage similar crises in the future (Adikaram et al., 2020).

In Ghana, Oti-Boadi et al. (2021) examined the relationship between fear of COVID-19, psychological distress and coping strategies adopted by undergraduate students in Ghana. The study employed a sample of 209 students to complete online surveys. Results indicated normal to mild levels of psychological distress and above average scores on fear of coronavirus. Also, fear of coronavirus was positively related to psychological distress. The study also revealed that denial, venting and humour were associated with fear of COVID-19. Their findings emphasized the need to design and optimize institutional interventions that will address psychological distress and fear of COVID-19 during the pandemic and provide psychotherapeutic support for students.

Empirical review on psychological well-being and job performance

Usman (2017) investigated the influence of psychological well-being on employee job performance. The study had two aims: (a) to examine the psychological well-being of employees and its relationship with their levels of job performance, and (b) to compare psychological well-being of employees in projectized and non-projectized organisations. It was a quantitative study that involved 17 Information Technology companies. Employees from each of these businesses were arranged in both project-based and non-project-based organisational frameworks.

A total of 84 questionnaires gathered through convenience sampling were used for analysis. The questionnaire had two sections; the portion which measured psychological well-being was self-evaluated by the employees. The subsequent aspect which evaluated performance was completed by the superiors of the designated employees. The approach was used to lessen bias associated with common method variance. Regression was employed in the data analysis to determine the association between psychological well-being and job performance. A further study of correlation coefficients was used to examine the strengths of the correlation coefficients for projectized and non-projectized enterprises individually.

Findings showed that higher psychological well-being is useful for increased employee performance in both projectized and non-projectized organizational structures. The study also showed that both projectized and non-projectized firms have the same levels of psychological well-being and employee work performance. The study had two limitations: first, the convenience sampling method may have introduced personal biases; and

second, the majority of respondents were under the age of 40, suggesting that the practical implications only apply to young people.

Further, Warr et al. (2018) researched into the happy-productive worker hypothesis. It was solely a qualitative research that looked at several types of context-free and job-related well-being, as well as work performance in terms of in-role and extra-role behaviours through activities like creativity and proactiveness. The results showed significant links between wellbeing and performance of individual workers.

The study also reviewed literature on some likely moderators of these associations, and discovered that factors such as autonomy, job rank and expected benefits could moderate the influence of individual well-being on good performance. Turning to group-level well-being, they found that group affective tone is moderately related to performance. Group characteristics, such as group size and talents of group members, were suggested as important moderators. They offered some suggestions about causal influences in this area (Warr et al., 2018).

Kundi et al. (2020) also investigated the role of affective commitment in mediating the relationship between psychological well-being and job performance. The study also considered the moderating role of job insecurity on psychological well-being and affective commitment. Data were gathered from employees working in cellular companies using paper-and-pencil surveys. A total of 280 responses were received. Hypotheses were tested using structural equation modeling and Hayes's Model. Findings suggested that affective commitment mediates the association between psychological well-being (hedonic and eudaimonic) and employee job performance.

Additionally, the association between psychological well-being and affective commitment is tempered by perceived job insecurity. According to the study's findings, encouraging employee psychological well-being may be beneficial for the firm. However, if measures to ensure job security are not taken, it could lead to unfavourable employee attitudes and actions toward their jobs. The study extended the current literature on employee well-being in two ways. First, it examined psychological well-being in terms of hedonic and eudaimonic well-being with employee work-related attitude and behavior. Second, it highlighted the prominent role played by perceived job insecurity in explaining some of these relationships (Kundi et al., 2020).

Empirical review on psychological well-being in rural and urban centres

Nepomuceno et al. (2016) carried out a research on the relations between mental health and well-being in urban and rural environments that are characterized by poverty. It was a quantitative study which included 417 adult residents of two localities in; one rural and the other urban. Questionnaires were used to gather data. Questionnaire items comprised socio-demographic information, the Personal Well-being Index, and the Self Report Questionnaire (SRQ-20) scales. Their findings revealed significant differences in well-being and the prevalence of common mental disorders (CMD) between residents of rural and urban communities, with a higher average well-being score in the rural context and a higher average score for the prevalence of common mental disorders in the urban sample.

Subsequently, Dahlberg et al. (2018) investigated well-being among older adults in rural and urban areas in Barnsley, UK. The aim of the study was

to establish an association between social exclusion and psychological well-being in older adults from urban and rural contexts. It was a cross-sectional survey which utilized stratified sample frames and random probability sampling. A list of households divided into rural and urban households was created using the Barnsley Metropolitan electoral registration. Then a random sample of households was taken.

Participants in the study had to be at least 65 years old to be eligible. The World Health Organization-5 Well-being Index was used to assess psychological well-being. Social exclusion on the other hand was measured with five indicators. A sample of 628 respondents from a rural location and 627 from an urban centre were used. Models of sequential multiple regression were created for the following: 1) total sample; 2) rural sample; and 3) urban sample. The study revealed that, the well-being of people residing in rural areas was relatively higher than the well-being of urban samples, attributing the low level of well-being in urban areas to absence of communitarism and neighborhood alienation.

Based on the evidence from the empirical review, it is hypothesized that;

1. H₁: Psychological well-being has a significant influence on job performance of health workers in rural areas (OLGH)
2. H₁: Psychological well-being has a significant influence on job performance of health workers in urban centers (CCTH)
3. H₁: There is a statistically significant difference between the effect of psychological well-being on job performance of health workers at OLGH and CCTH

Lessons Learnt from Empirical Review

Four key lessons were learnt from the empirical review. First, much has not been done on psychological well-being of workers in Africa, particularly in Ghana. Almost all previous studies on psychological well-being were conducted in developed countries. Consequently, existing studies on psychological well-being and performance were not viewed through a geographical lens despite evidence from previous studies which suggest that contextual factors and neighborhood characteristics affect psychological well-being and performance (Kahneman & Krueger, 2006; Elliott et al., 2014; Toma et al., 2015; Winterton et al., 2016). This study therefore fills this gap in literature by performing a multi-group analysis for two sets of health workers in Ghana.

Furthermore, past researches have concentrated more on the theoretical and conceptual foundations of psychological well-being and performance rather than empirical data. The most predominant theoretical foundations have been the JD-R theory and most motivational theories. Motivation is linked to psychology in the sense that, people are motivated when their psychological needs are met. Considering the pace at which the world is evolving, there is the need to gather empirical data on psychological well-being issues to enable a more practical means of addressing such issues. The researcher is of the view that empirical data will provide a more solid basis for future human resource policies such as job crafting and team building rather than relying only on theories and conceptual explanations.

Furthermore, it is observed that the level of psychological well-being varies with several factors. While some studies indicate that personal factors have greater influence on psychological well-being, others prove that external

and organisational factors play a major role in influencing psychological well-being. This implies that in a quest to identify what really contributes to good psychological well-being, the totality of issues that affect workers must be considered. Thus, a more holistic view of psychological well-being should examine both internal and external factors that affect workers, their environment, and their organisation.

Finally, there are limited comparative studies on the influence of psychological well-being on job performance. More studies could focus on identifying the variations in psychological well-being on the basis of geographical location (such as what the current study looks at), gender, job industry and age groups.

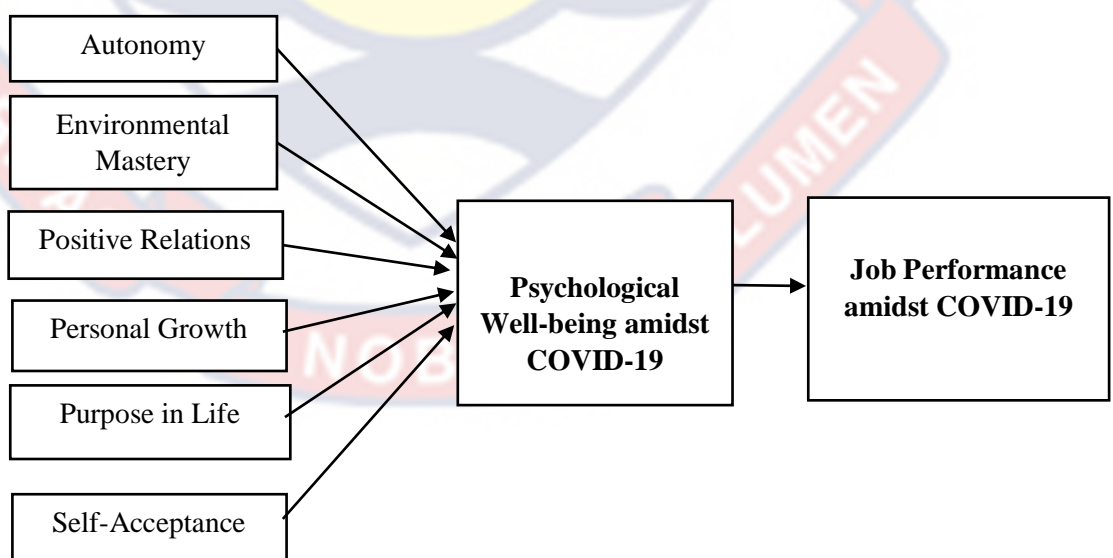
Conceptual Framework

The conceptual framework for this study was guided by the review of related literature. The variables in the conceptual framework were adapted from Ryff's Six-Factor Model of Psychological Well-being (Ryff, 1989); autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance; and Koopmans et al. (2014) dimensions of job performance; task, contextual and adaptive performance excluding counterproductive performance. In this framework, psychological well-being of employees amidst COVID-19 is being assessed as well as the job performance of employees amidst COVID-19. Further, the influence of psychological well-being on job performance during COVID-19 is ascertained.

Linking this to the JD-R theory, it can be argued that COVID-19 interferes with job demands and job resources in the organization and the impact

of this interaction will be felt in the six dimensions of psychological well-being (autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance) of health workers. Eventually, psychological well-being influences the performance of workers in either a positive or negative direction.

This implies that, if the job resources available to health workers during the pandemic can offset the changes and increase in job demands, their psychological well-being will support their job performance. On the contrary, if there are not enough job resources such as social support during the period of the pandemic, these workers will most likely experience burnout and exhaustion which have negative consequences for their psychological well-being and eventually their job performance. It is expected that the psychological well-being of health workers will be influenced either positively or negatively by the coronavirus pandemic and this will have a resulting impact on performance outcomes of employees.



Source: Author's Construct

Figure 1: Conceptual framework

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents the research methods employed in the study. The research methods are the procedural framework used in obtaining relevant and appropriate data and in making meaning out of the data obtained (Malhotra & Birks, 2012). Specifically, it sets out the research paradigm, study design, population, sample and sampling technique, data collection instrument and methods, data processing and analysis as well as the ethical considerations.

Research Paradigm

The study adopted the post-positivist paradigm. The post-positivist paradigm considers the backgrounds and contexts of participants in a study. Also, this paradigm projects objectivity, precision and orderly presentation of facts (Tekin & Kotaman, 2013). Post-positivism recommends conducting research in a natural environment and repeating the study later to achieve a less biased and more objective results (Phillips & Burbules, 2000; Kock et al, 2008). Social phenomena change with time and vary from place to place. Therefore, in conducting studies that foster the analysis of a phenomena from diverse viewpoints, and in different settings, the employment of the post-positivist paradigm is the most effective approach.

According to Philip and Burbules (2000), the post-positivist approach permits socio-educational research to be done scientifically by reaching provisional findings and recommending more investigation. This philosophy was adopted because the researcher believes that the influence of the pandemic on psychological well-being and performance may vary in different geographic

settings, hence the need for actual data gathering and interpretation to enable a more objective conclusion which can be repeated in the future.

Study Design

This study was a cross-sectional study which adopted an explanatory research design. This research design explains the phenomenon being examined rather than merely describing it (Given, 2008). Also, an explanatory design is used to determine the scope and type of cause-and-effect interactions among variables, according to Baskerville and Pries-Heje (2010). With reference to literature, an effective method for performing a multi-group study is the explanatory research design. Explanatory research design, according to Creswell (2014), is frequently used to examine causal relationships between variables and is suitable for multi-group studies because it enables researchers to compare the effects of the independent variable on the dependent variable across various groups.

Similar to this, Campbell and Stanley (2015) point out that multi-group studies frequently use explanatory research design to test hypotheses about causal associations between variables. Additionally, Sekaran and Bougie (2016) emphasize that explanatory research design is particularly helpful when researchers want to assess the impact of the independent variable on the dependent variable in comparative studies. Explanatory research design will enable an in-depth understanding of the variables of interest in light of COVID-19. This understanding would further aid policy and or decision making about employee well-being in organisations.

Research Approach

The quantitative research approach was used in obtaining relevant data for this study. This approach was drawn from the researcher's post-positivist paradigm which aims at making conclusions based on objective data that has been gathered. The quantitative approach supports the systematic examination of relationships among variables. In addition, this approach provides a precise description of practical life situations as indicated by Creswell (2014). Since issues about psychological well-being may be subjective, it is important to gather data from people who have had real life experiences and exposure, quantify these experiences and then make valuable interpretations and conclusions.

Study Area

Two study units were used for this research; Our Lady of Grace Hospital in a rural area (Breman Asikuma) in the Central Region of Ghana and Cape Coast Teaching Hospital in an urban area (Cape Coast) also in the Central Region of Ghana. These two study areas, just like other hospitals in Ghana, operate under the Ministry of Health which is responsible for formulating health worker policies, setting standards for the delivery of health care and providing direction for health delivery services. These study areas were selected to enable the researcher perform a multi-group analysis of psychological well-being, performance and their associations as stipulated in the study objectives.

Cape Coast Teaching Hospital (CCTH)

The Cape Coast Teaching Hospital, formerly known as the Central Regional Hospital was one of the first advanced regional hospitals established

by the Ministry of Health. The hospital is situated in Cape Coast specifically to the north of Abura, south of Pedu Estate, east of Abura Estate, and west of Nkafua. It is a referral hospital which became a teaching hospital after the establishment of the University of Cape Coast's School of Medical Sciences (Karikari, 2018). The hospital offers a comprehensive spectrum of specialty health care services, including gynaecology, orthopaedics, otolaryngology, and paediatrics, to individuals throughout the nation (Tawiah et al, 2015).

CCTH recorded its first COVID-19 case in April 2020 and by December 2020, a total of 436 confirmed cases were being managed by the CCTH COVID-19 Management Task Team. Out of this number, 393 (90.1%) cases were treated, recovered and discharged, and 27 (6.2%) deaths were recorded during the period. About 131 staff of the hospital also got infected. Various COVID-19 guidelines and protocols were developed and disseminated to all stakeholders. Staff were trained on infection prevention and control measures. The hospital also started coronavirus testing at its own Laboratory in September, 2020 with the support of the Ministry of Health (CCTH Annual Performance Report, 2020).

CCTH was selected for this study due to a number of factors; first, its large capacity which enables it to provide medical services to thousands of people from all walks of lives. Also, the increasing patronage of the hospital's services and its wide coverage area exposes health workers of the hospital to the conditions of attracting the COVID-19. In addition, Cape Coast Teaching Hospital places great emphasis on the psychological well-being of its staff. A quality assurance report published by the hospital entreated staff to watch out for stressful signs such as "feeling overwhelmed, unmotivated or unfocused,

anger irritability or restlessness, depression or anxiety, trouble sleeping or sleeping too much and racing thoughts or constant worry” (CCTH Quality Report, 2020).

The report also encouraged workers to avoid stress because stress could make them vulnerable to illness and infections that could hamper their immune system. Following this report, CCTH can be described as having great interest in psychological issues that affect the well-being of its staff. This made it necessary to look into the psychological well-being and performance of CCTH healthcare workers in the middle of the COVID-19 outbreak.

Our Lady of Grace Hospital (OLGH)

Our Lady of Grace Hospital is located at Breman Asikuma in the Central Region of Ghana. It is a district hospital and the only hospital facility in the Asikuma-Odoben-Brakwa District. The District has twenty-one settlements with a population of about 126,993 (2020 population census report). OLGH serves as a referral hospital to eight (8) government health centres, two (2) mission clinics, four (4) maternity homes, and fourteen (14) community clinics. Since its establishment, the hospital has seen significant alterations, and it is currently recognized as a mission and district hospital with NHIS accreditation, serving the people of Asikuma-Odoben-Brakwa and beyond. X-ray and ECG services, psychiatric clinic, ophthalmology services, obstetrics and gynaecology, physiotherapy centre, dentistry, laboratory, and surgical treatments are all available at the hospital.

The importance of examining the psychological well-being and job performance of health workers in OLGH cannot be understated. Firstly, the

hospital places great emphasis on psychological wellbeing and has established a special unit to handle all issues pertaining to emotional and mental wellbeing of its workers. Also, the hospital serves numerous people which increases the level of exposure of workers to COVID-19 and stress. Furthermore, the study by Durizzo et al. (2021) which revealed that rural residents in Ghana are less concerned about the pandemic projected serious implications for the well-being of health workers in rural areas, because lack of concern about the pandemic could translate into refusal of rural indigenes to observe COVID-19 protocols, increasing their exposure and risk of contraction. These reasons, among others made OLGH an appropriate rural hospital for this study.

Study Population

A study population constitutes all individuals or groups of people with specific attributes that will enable the objectives of a study to be met (Creswell, 2014). The population for this study constituted nurses and midwives in CCTH and OLGH. According to data obtained from the two hospitals, there are a total of 1,089 nurses and midwives from Our Lady of Grace Hospital and Cape Coast Teaching Hospital. A breakdown of the hospital-specific population is presented in Table 1:

Table 1: Population of respondents per hospital

Hospital	Number of nurses and midwives	Percentage
CCTH	599	55
OLGH	490	45
Total	1,089	100.0

Source: CCTH and OLGH Staff Reports (2021)

Sample and Sampling Procedure

In research, sampling allows a researcher to analyse a relatively small number of units instead of the entire population, so that the smaller unit becomes reflective of the full target population (Sarantakos, 2007). Several researchers have advanced ways of calculating a sample out of a wider population. Mathematically, researchers have proposed that a sample size can be calculated directly using statistical equations or via the use of tables that provide suggested sample sizes for specific populations. (Krejcie & Morgan, 1970; Sarantakos, 2007).

For the purpose of this study, Adam's (2020) Sample Size Determination Table was used in drawing a sample to represent the entire population. With reference to Adam's (2020) Table, when working with a population range between 1,000 and 1,200 at a confidence interval of 95% and significant level of 5%, the minimum sample size should be within 211 and 219 to ensure a true representation of the targeted population. In view of this, a minimum sample of 219 was selected for the study. A total of 270 questionnaires were distributed, out of which the researcher obtained 262 questionnaires from the two hospitals. This number exceeded the minimum sample size required and can be argued as highly representative of the total population.

The stratified random sampling technique was used in distributing questionnaires to the sample. First, the population was divided into two strata (CCTH and OLGH) after which questionnaires were randomly distributed to nurses and midwives in each hospital. To ensure representativeness, 55% of the total questionnaires retrieved were from CCTH while the remaining 45% of

respondents were from OLGH. This was to ensure that each strata is well represented.

Stratified sampling is used to emphasize differences across groups in a population as opposed to regular random sampling, which considers every member of a population equally. Because the population consists of two sets of respondents (rural respondents and urban respondents), the population was stratified into two groups; OLGH and CCTH. As prescribed by Acharya et al. (2013), stratified random technique ensures that each group within the population is well represented, enabling the possibility to compare the traits of each stratum.

Also, Zhao et al. (2019), posit that this sampling technique enables a researcher to avoid biases in selecting more respondents from one group than others in a homogenous population. This study also adhered to the assumption in multi-group analysis which indicates that the difference between the samples to be compared must not exceed 50 (Sarstedt et al., 2011). The breakdown of the sample is presented in Table 2:

Table 2: Number of respondents per hospital

Name of hospital	Number of respondents	Percentage
CCTH	143	54.5
OLGH	119	45.5
Total	262	100.0

Source: Field data, 2022

Inclusion Criteria

The inclusion criteria for issuing questionnaires covered all nurses and midwives who work full time in both OLGH and CCTH. Specifically, they were made up of community health nurses, professional nurses, enrolled nurses and midwives. There was no limitation on their marital status, sex or academic qualification.

Exclusion Criteria

All other health workers who are neither nurses nor midwives were excluded from the study. This exclusion was due to time constraint. Also, student nurse interns as well as visiting nurses, were excluded from the study. This was based on the assumption that they may not have the needed experience on the field, and this could influence their responses.

Data Collection Procedures

Before going to the field for data, the researcher first obtained two introductory letters from the Department of Human Resource Management, University of Cape Coast. Each letter was addressed specifically to each hospital, also indicating the title and purpose of the study. Having met the requirements of the two hospitals, the researcher was issued an ethical clearance letter from the Ethical Review Committee of CCTH. A formal letter of approval was also given by OLGH permitting the researcher to conduct the study in the facility.

Data was collected within eight (8) weeks. Questionnaires had been vetted by the researcher's supervisor to meet face validity. The researcher

personally administered the questionnaires to respondents in various units in their respective hospitals. Respondents were informed of their voluntary rights to participate in the study before the questionnaires were issued out to them. Questionnaires were later retrieved after weeks of distribution. A total of 262 completed questionnaires were retrieved. All COVID-19 protocols were observed throughout the period of data collection.

Data Collection Instrument

A structured questionnaire was used in gathering data for this study. This instrument was designed taking into consideration the study objectives and the research method. The questionnaire was used due to its ability to ensure a high degree of confidentiality and anonymity. The questionnaire was prefaced by the topic of the study and also introduced the researcher. The preamble assured respondents of anonymity and confidentiality of responses. The questionnaire consisted of three parts; A, B and C. Section A gathered data on the demographic characteristics of respondents. Specifically, respondents were asked about their age, sex and the number of years they have worked with their respective hospitals.

Section B focused on the psychological well-being of respondents amidst the pandemic. The 18-item version of Ryff Psychological Well-being Scale (Ryff, 1989) was adapted. The instrument was designed to measure six dimensions of psychological well-being indicated earlier. In adapting the questionnaire, some of the wording in the original instrument were rephrased to suit the research objectives. Autonomy subscale items on the questionnaire were questions (1, 2, 3), Environmental Mastery comprised items (4, 5, 6), Personal

Growth items were (7, 8, 9), Purpose in Life comprised items (10, 11, 12), Positive Relations covered items (13, 14, 15), and Self-Acceptance comprised items (16, 17, 18). The questionnaire items were measured on a five-point Likert scale ranging from '1' - 'Strongly Disagree' to '5' - 'Strongly Agree'.

Section C of the questionnaire gathered data on job performance of respondents amidst the pandemic. In all, 10 items were adapted from the Individual Work Performance Questionnaire by Koopmans et al. (2014). The instrument was designed to cover three dimensions of job performance: task performance, contextual performance and adaptive performance (Koopmans et al., 2014). The dimensions were measured as follows; items 1, 2, 3 - task performance; items 4, 5, 6, 7 - contextual performance and items 8, 9, 10 - adaptive performance. Again, a five-point Likert scale ranging from '1' - 'Strongly Disagree' to '5' - 'Strongly Agree'.

Data Processing and Analysis

Completed questionnaires were numbered from 1 to 262, each number representing one anonymous respondent. Precisely, in numbering, questionnaires from OLGH constituted the first 119 while the remaining 143 questionnaires were from CCTH. The purpose of this was to enhance easy identification during data cleaning. Following the completion of data entry, data cleaning was performed to ensure that there were no incorrect entries that could contaminate the findings. After then, the data was put into the Statistical Package for Social Sciences (SPSS version 25). Frequency, mean, and percentages were used to answer research questions one and two. These analytical methods were used for research questions one and two because they

allow a researcher to pinpoint features and patterns of groupings in data gathered (Lavrakas, 2008).

SMART PLS 4 was used as the data processing tool to investigate research objectives 3, 4 and 5. Specifically, PLS algorithm was used for objectives 3 and 4 while Multi-group PLS was used for the last objective. While psychological well-being was measured as a second order construct with six dimensions, the dimensions of job performance were assessed together. SEM was employed because it takes the connection between each latent component and the observable indicators into consideration.

SEM is also a statistical method that integrates the two statistical approaches of factor analysis and path analysis into a single statistical method (Hair et al., 2014). Using confirmatory factor analysis, SEM may assess the piece that relates the observed variable to the latent variable, as well as the structural element that creates the relationship between the latent variables and regression. As a result, PLS-SEM is particularly resistant to faults like skewness, indicator multicollinearity, and structural model misspecification (Hair et al., 2014).

Ethical Consideration

As expressed by Yip et al. (2016), any research that involves the use of primary data must critically concern itself with ethical issues such as anonymity, voluntary participation, informed consent and information secrecy. In view of this, the researcher adhered to some ethical issues. Firstly, the researcher was provided with an introductory letter from the Department of Human Resource Management to the two hospitals selected for the study. Permission was then

sought from the study units by obtaining ethical clearance and approval letter from the two hospitals.

To ensure anonymity of respondents, questionnaire items did not include any information (such as names of respondents), that could be traced back to respondents. The researcher left the respondents to complete questionnaires at their own pace and time. This was to ensure privacy and confidentiality of responses. Also, respondents were not coerced into answering the questionnaire; rather they were informed of their right to voluntary participation, and those who completed the questionnaires did so wilfully. Lastly, the researcher referenced all relevant sources from which information was obtained for the study. This was done to address any issues of plagiarism.

Chapter Summary

This study was cross-sectional and adopted a quantitative approach and an explanatory research design. The study used a total of 262 nurses and midwives from CCTH (143) and OLGH (119), both in the Central Region of Ghana. A structured questionnaire was used in collecting data for the study. Two standardised scales called the PWB Scale by Ryff (1989) and the Individual Work Performance Scale by Koopmans et al. (2014) were adapted. The stratified random sampling technique was used in distributing questionnaires to respondents. The researcher personally distributed questionnaires to respondents in their respective hospitals. All COVID-19 protocols were observed during data collection as well as some ethical issues. SPSS version 25 and Smart PLS 4 were used in data processing.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The focus of this study was to assess the psychological well-being and job performance of nurses and midwives amidst COVID-19. This chapter presents the results, interpretations and discussion of data obtained from respondents in this study. This study was conducted in CCTH and OLGH, therefore analysis of data from the two hospitals are performed. The chapter is divided into three sections. The first section provides respondents' demographic information. The second section presents the main findings of the study in order of the research questions and hypotheses and the final part presents the discussion of the results.

Demographic Information of Respondents

The first section of the questionnaire solicited respondents' demographic information. Information obtained included sex, age and years of work experience with the organization. The purpose for the inclusion of background data of respondents was to have an idea about some general characteristics of respondents which may influence their responses. The demographic distribution for the complete sample is shown in Table 3. It can be observed from Table 3 that, a total sample of 262 questionnaires were retrieved from the two hospitals for analysis. One hundred and forty-three (143) respondents, representing 55% of the total of two hundred and sixty-two (262) respondents, were from CCTH, while the remaining one hundred and nineteen (119) respondents, representing 45%, were from OLGH.

Table 3: Demographics of Respondents

		Frequency	Percentage (%)
Hospital	OLGH	119	45
	CCTH	143	55
	Total	262	100.0
Sex	Male	129	49
	Female	133	51
	Total	262	100.0
Age Range	Less than 30 years	106	40.4
	30-40 years	77	29.4
	40-60 years	79	30.2
	Total	262	100.0
	Years spent with hospital	Less than 3 years	96
	3-6 years	111	42.4
	Above 6 years	55	21.0
	Total	262	100.0

Source: Field data, 2022

The first demographic variable of importance was the sex of respondents. Table 3 presents that, out of the total of two hundred and sixty-two (262) respondents, one hundred and thirty-three (133) representing 51% were female respondents and one-hundred and twenty-nine (129) representing 49% were male respondents. By implication, a higher percentage of the respondents for the study were females. This corroborates the findings of Magar et al. (2019)

who asserted that there is an increased number of female nurses globally. According to them, women make up roughly 70% of the workforce in the health sector. This could explain why a higher proportion of respondents were females.

Additionally, this study looked into the age ranges of respondents. As in Table 3, out of the two hundred and sixty-two (262) respondents, one hundred and six (106) respondents representing 40.4% were less than 30 years, seventy-seven (77) respondents representing 29.4% fell in the bracket of 30-40 years. Also, seventy-nine (79) respondents representing 30.2% were between the age ranges of 40-60 years. The results imply that, a greater percentage of nurses and midwives in CCTH and OLGH are young adults. This distribution may be highly predictive of performance as asserted by Letvak et al. (2013) who projected that younger nurses are physically stronger and are more productive as compared to older nurses.

The study further examined how long respondents had worked with their respective hospitals. Table 3 shows that, ninety-six (96) respondents representing 36.6% had worked with their hospitals for less than 3 years, one hundred and eleven (111) respondents representing 42.4% had worked between 3 to 6 years. Also, fifty-five (55) respondents representing 21% had worked with their hospitals for more than 6 years. This signifies that the majority of participants are highly experienced and have worked with their hospitals long enough before COVID-19 set in. This is relevant because the psychological well-being and performance of these respondents during the pandemic would then not be attributed to a lack of experience on the job or lack of familiarity with the work environment.

Main Results

The study, as explained in chapter one, had two research questions and three hypotheses. Mean, standard deviation, and t-test statistics were used to evaluate the research questions, using SPSS v25. The research hypotheses were tested with PLS-SEM bootstrap and multi-group PLS SEM analysis using SmartPLS 4 (Ringle et al., 2022). The findings are presented below.

Research Question One: What is the psychological well-being of health workers at CCTH and OLGH amidst COVID-19?

The purpose of this research question was to assess the general psychological well-being of nurses and midwives together and further draw out the differences in psychological well-being in the two hospitals. To answer this question, the six dimensions of psychological well-being proposed by Ryff (1989) were assessed on a five-point Likert scale ranging from 1-5. This study relies on Awang et al. (2010)'s ranking of mean, which established that, on a scale of 1-5, overall mean values within the scope of 1.00-2.32 indicate a low level of agreement, overall mean values between 2.33-3.66 indicate a moderate level of agreement, and overall mean values between 3.67-5.00 indicate a high level of agreement with the scale.

This implies that, values of 1.00-2.32 indicate a low level of psychological well-being, mean scores of 2.33-3.66 suggest a moderate level of psychological well-being and mean scores of 3.67-5.00 suggest that psychological well-being is high. Table 4 indicates the mean values, standard deviation (SD), excess kurtosis and skewness.

Table 4: Descriptive statistics based on level of psychological well-being

	Mean	Standard deviation	Excess kurtosis	Skewness
Autonomy (AU)				
AU1	4.023	0.992	0.299	-0.895
AU2	4.176	0.957	1.401	-1.252
AU3	4.115	1.02	1.062	-1.208
Average	4.105	0.99	0.92067	-1.1183
Environmental Mastery (EM)				
EM1	4.309	0.953	3.093	-1.718
EM2	4.286	1.003	2.438	-1.627
EM3	4.214	0.977	1.927	-1.428
Average	4.27	0.978	2.486	-1.591
Personal Growth (PG)				
PG1	3.748	1.262	-0.565	-0.719
PG2	3.905	1.215	-0.123	-0.934
PG3	4.141	1.00	1.161	-1.232
Average	3.931	1.159	0.15767	-0.9617
Purpose in Life (PL)				
PL1	4.107	0.994	1.231	-1.200
PL2	4.172	0.968	0.898	-1.139
PL3	4.099	0.999	1.484	-1.241
Average	4.126	0.987	1.20433	-1.1933
Positive Relations (PR)				
PR1	3.695	1.274	-0.710	-0.658

PR2	3.836	1.175	-0.155	-0.827
PR3	4.023	1.063	0.328	-0.948
Average	3.851	1.171	-0.179	-0.811
Self-Acceptance (SA)				
SA1	4.233	0.99	3.051	-1.716
SA2	4.363	0.918	3.898	-1.886
SA3	4.179	1.001	1.417	-1.308
Average	4.258	0.97	2.78867	-1.6367

Source: Field data, 2022

AU1 assessed whether or not respondents were influenced by people with strong opinions. The response reflects a mean value of 4.023 and a standard deviation of 0.992, indicating that respondents are highly influenced by people with strong opinions. With regards to whether respondents have confidence in their own opinions, even if they are different from the way most other people think, AU2 recorded a mean score of 4.176 and a standard deviation of 0.957, depicting that respondents are highly confident in their opinions. Again, when asked if respondents judge themselves by what they think is important, as opposed to what others think (AU3), the results show a mean score of 4.115 and a standard deviation of 1.020, indicating a high level of agreement to this statement. The average mean score and standard deviation for 'Autonomy during COVID-19' were 4.105 and 0.99 respectively. These scores represents a high level of autonomy among respondents during the pandemic.

Considering the statement 'Since the time of the pandemic, the demands of everyday life often get me down', a mean score of 4.309 and a standard deviation of 0.953 were recorded. This shows that respondents are weighed by

the demands of everyday life since the commencement of the pandemic. EM2 assessed whether in general, respondents feel they are in charge of the situation in which they live. The statement recorded a mean score of 4.286 and a standard deviation of 1.003 which shows that respondents feel highly in charge of their situations. With regards to 'I am good at managing the responsibilities of daily life with or without COVID-19 (EM3)', a mean score of 4.214 and standard deviation of 0.977 recorded shows that respondents are highly in agreement. It is observed from Table 4 that, there was a high level of Environmental Mastery amidst the pandemic, with an average mean score of 4.27 and an average standard deviation of 0.978.

In determining if life has been a continuous process of learning, changing, and growth since the time the pandemic started (PG1), the mean score was 3.748 with a standard deviation of 3.748. This implies a high level of agreement to this statement. With regards to the questionnaire item which read 'I think it is important to have new experiences such as COVID-19 that challenge how I think about myself and the world', a mean score of 3.905 and a standard deviation of 1.215 were recorded, implying a high level of agreement. PG3 assessed whether respondents gave up trying to make big improvements or changes in their lives when the pandemic set in. This statement obtained a mean score of 4.141 and a standard deviation of 1.000 which also indicates a high level of agreement. Personal growth during the pandemic can be described as being high (average mean score= 3.931, average standard deviation=1.159).

The questionnaire item 'Maintaining close relationships has been difficult and frustrating for me due to COVID-19' recorded a mean score of 3.695 and a standard deviation of 1.274 as shown in PR1. This implies that

respondents had difficulty maintaining close relationships amidst the pandemic. Again, respondents were asked if people would describe them as generous and willing to share their time with others irrespective of the pandemic. This statement obtained a mean score of 3.836 and a standard deviation of 1.175 indicating that respondents are willing to share their resources even amidst the pandemic. With regards to 'experiencing many warm and trusting relationships with others ever since COVID-19 set in', a high level of agreement with a mean score of 4.02 and a standard deviation of 1.063 were recorded. Personal Relations amidst the pandemic recorded an average mean of 3.851 and a standard deviation of 1.171, indicating a high level of Personal Relations.

The questionnaire item 'some people wander aimlessly through life, but I am not one of them' recorded a mean score of 4.107 and a standard deviation of 0.994 indicating a high level of agreement. Respondents were also asked if they live life one day at a time and don't really think about the future. The mean score was 4.172 and the standard deviation was 0.968. The implication is that, respondents focus on living each day at a time. With regards to whether respondents sometimes feel as if they have done all there is to do in life, a mean score of 4.099 was obtained with a standard deviation of 0.999 indicating a high level of agreement. From Table 4, it can be observed that there was a high level of Purpose in Life amidst the pandemic (average mean=4.126, standard deviation= 0.987).

Respondents were asked whether they like most parts of their personalities even during the pandemic. It was observed that respondents highly agree (mean = 4.233, SD=0.990). Regarding the questionnaire item 'When I reflect back on my life, I am satisfied with how things have turned out thus far,

regardless of COVID-19', the mean score obtained was 4.363 and the standard deviation was 0.918. This suggests that participants are content with how their lives have turned out. With a mean of 4.179 and a standard deviation of 1.001, the last questionnaire item, "In many respects I feel disappointed with my achievements in life," revealed a high degree of agreement. The average mean score and standard deviation for Self-Acceptance amidst the pandemic were 4.258 and 0.97 respectively. These scores imply a high level of Self-Acceptance amidst the pandemic.

The mean scores for differences in psychological well-being of health workers in each hospital are presented in Table 5:

Table 5: Descriptive statistics based on hospitals

		Group Statistics			
Hospital	N	Mean	Std. Deviation	Std. Error Mean	
PWB	OLGH	119	4.2857	.67413	.06180
	CCTH	143	3.9274	.79820	.06675

Source: Field data, 2022

According to the results in Table 5, it can be said that OLGH (mean= 4.2857; SD= 0.67413) reported better psychological well-being than CCTH (mean= 3.9274; SD=0.79820).

To assess whether there is a significant difference in the levels of psychological well-being in the two hospitals, the Levene's test for equality of variances was used. Table 6 presents the hospital differences in psychological well-being:

Table 6: Hospital differences in psychological well-being

		Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
PWB	Equal variances assumed	1.343	.248	3.880	260	.000	.35836	.09237	.17647	.54026	
	Equal variances not assumed			3.940	259.938	.000	.35836	.09096	.17925	.53748	

Source: Field data, 2022

From the Levene's results in Table 6, homogeneity of variance assumption was not violated for PWB because the sig value (0.248) is greater than 0.05. Following that, an equality of means test was performed. As shown in Table 6, there was statistically significant difference between CCTH and OLGH in terms of psychological well-being, ($t = 3.880$, sig = 0.000) which is less than 0.05 and falls within 95% confidence interval (CI 0.17647, 0.54026). The magnitude of the effect size (Cohen's $d = 0.06$) is moderate (Cohen, 1988). Practically, only 6% of the variance in psychological well-being is explained by the hospitals

Research Question Two: What is the performance of health workers at CCTH and OLGH amidst COVID-19?

The purpose of this research question was to assess the general performance of nurses and midwives together and further draw out the differences in job performance in the two hospitals. To answer this question, three dimensions of job performance; task performance, contextual performance and adaptive performance (Koopmans et al., 2014) were measured on a five-point Likert scale ranging from 1-5. Again, the study relied on the classification of mean by Awang et al. (2010). This implies that, values between 1.00 and 2.32 indicate low job performance, mean scores between 2.33 and 3.66 indicate moderate job performance, and mean scores between 3.67 and 5.00 indicate high job performance.

Table 7 presents the mean values, standard deviation, excess kurtosis and skewness of responses obtained on the job performance indicators used in this study. It can be observed from Table 7 that, a mean score of 4.160 and a standard deviation of 0.971 were reported for the questionnaire item ‘When COVID-19 set in, I managed to schedule my work so that it was done on time,’ suggesting a high degree of agreement. When respondents were asked if they kept in mind the results they needed to achieve in their work, a mean score of 4.290 and SD of 0.847 respectively were obtained. This also shows a high level of agreement. The questionnaire item ‘I was able to set priorities to enable me carry out my work efficiently’ captured as JP3 recorded a mean score of 4.149 and standard deviation of 0.971, implying that respondents were able to set priorities to enable them carry their work efficiently. With a mean score of 4.221

and SD of 0.889, it can be said that on their own initiatives, respondents took on challenging tasks when they were available (JP 4).

Table 7: Descriptive statistics based on level of job performance

	Mean	Standard deviation	Excess kurtosis	Skewness
JP1	4.160	0.971	1.213	-1.181
JP2	4.290	0.847	2.382	-1.390
JP3	4.149	0.971	1.540	-1.258
JP4	4.221	0.889	1.804	-1.302
JP5	4.015	1.129	0.351	-1.055
JP6	4.145	0.974	0.938	-1.118
JP7	4.107	1.068	0.888	-1.235
JP8	4.366	0.893	3.946	-1.858
JP9	4.092	1.026	1.061	-1.187
JP10	4.134	0.942	1.215	-1.125
Average	4.1679	0.971	1.5338	-1.2709

Source: Field data, 2022

When asked if respondents probed all relevant sources to better understand the pandemic, findings revealed a mean score of 4.015 and standard deviation of 1.129, depicting that respondents highly agree to finding out more information about the pandemic. Respondents were also asked whether they actively participated in meetings and or consultations to improve work. A mean score of 4.145 and standard deviation of 0.974 reveal that respondents were highly engaged in meetings to improve work. Considering the questionnaire item ‘I involved others when it was necessary to ensure quality performance’, findings indicate a highly favorable response (mean=4.107, SD=1.068).

With regards to whether respondents easily adjusted to changes in their work (mean=4.366, SD=0.893); developed coping mechanisms to deal with the pandemic (mean=4.092, SD=1.026); and developed creative solutions to new problems (mean=4.134, SD= 0.942), the results indicated a high level of agreement. Thus, respondents were able to easily adjust to changes in their work and also developed coping mechanisms to deal with the pandemic. Further, respondents came up with creative solutions to new problems. Generally, the average mean score and standard deviation for job performance were 4.1679 and 0.971 respectively as shown in Table 7. This implies that the general level of job performance for the two hospitals amidst COVID-19 was high.

The mean scores for differences in job performance of health workers in each hospital are presented in Table 8:

Table 8: Descriptive statistics based on hospitals

		Group Statistics			
	Hospital	N	Mean	Std. Deviation	Std. Error Mean
JP	OLGH	119	4.4000	.64703	.05931
	CCTH	143	3.9748	.83838	.07011

Source: Field data, 2022

According to the results in Table 8, it can be said that OLGH (mean=4.4000; SD= 0.64703) reported a higher level of job performance as compared to CCTH (mean=3.9748; SD=0.83838).

To assess whether there is a significant difference in the levels of job performance in the two hospitals, the Levene's test for equality of variances was used. Table 9 presents the hospital differences in level of job performance;

Table 9: Hospital differences in job performance

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper	
JP	Equal variances assumed	3.404	.066	4.523	260	.000	.42517	.09400	.24008	.61027
	Equal variances not assumed			4.593	258.596	.000	.42517	.09183	.24434	.60601

Source: Field data, 2022

The homogeneity of variance assumption was not violated for JP, according to the Levene results in Table 9, because the sig value (0.066) is higher than 0.05. An equality of means test was then conducted. Table 9 demonstrates that there was a statistically significant difference in job performance between CCTH and OLGH ($t = 4.523$, $\text{sig} = 0.000$), which is less than 0.05 and is within the 95% confidence interval (CI 0.24008, 0.61027). There is a reasonable effect size (Cohen's $d = 0.07$). (Cohen, 1988). In reality, hospitals only explain 7% of the variation in job performance.

PLS SEM Analysis

This section presents the outcomes of objectives 3, 4 and 5, using PLS-SEM bootstrap and multi-group analysis (Ringle et al., 2022). The evaluation of PLS SEM includes both a definition of the observed variables and an assessment of the structural model (Ringle et al., 2015). First, the researcher assessed the PLS-SEM model using PLS SEM algorithm and then performed a bootstrap with 5,000 iterations to provide regression data at 5% significance level. The structural model is used if the measurement model ensures that the constructs have sufficient indicator loading, convergent validity, composite reliability, and discriminant validity (Hair et al., 2019). The examination of structural models involves the analysis of path coefficients and their significance. After the validation of the measuring indicators, the results for each objective have been stated and examined.

Reliability and Validity of Constructs

The fitness of the model was evaluated using construct reliability, indicators' reliability, convergent validity and discriminant validity (Nitzl, 2016). Construct reliability was measured with Cronbach's alpha (CA) and rho_A, indicators' reliability were assessed with item loadings, convergent validity was measured with average variance extracted (AVE). Finally, discriminant validity was assessed with heterotrait-monotrait (HTMT) ratio. Table 10 presents results for construct and indicators' reliability and as well as convergent validity;

Table 10: Indicator factor loadings, variance inflation factor, reliability, and validity statistics

Variables	Item Loadings			Outer VIF			CA	rho_A	CR	AVE
	Complete	OLGH	CCTH	Complete	OLGH	CCTH				
Autonomy (AU)	Complete						0.896	0.897	0.935	0.828
	OLGH						0.858	0.859	0.913	0.778
	CCTH						0.909	0.910	0.943	0.847
AU1		0.906	0.881	0.911	2.656	2.149				
AU2		0.922	0.893	0.934	3.013	2.242				
AU3		0.902	0.872	0.915	2.600	2.073				
Environmental Mastery (EM)	Complete						0.849	0.855	0.908	0.767
	OLGH						0.854	0.854	0.912	0.775
	CCTH						0.848	0.857	0.908	0.767
EM1		0.851	0.889	0.836	1.960	2.311				1.844
EM2		0.879	0.866	0.887	2.032	1.921				2.152
EM3		0.897	0.885	0.902	2.257	2.225				2.343
Positive Relations (PR)	Complete						0.849	0.851	0.909	0.768
	OLGH						0.847	0.853	0.907	0.765
	CCTH						0.829	0.833	0.898	0.745
PR1		0.882	0.904	0.851	2.519	2.827				2.160
PR2		0.898	0.866	0.901	2.641	2.424				2.513
PR3		0.849	0.854	0.837	1.689	1.705				1.620
	Complete						0.831	0.832	0.899	0.748

Table 9 cont'd

Personal Growth (PG)	OLGH							0.820	0.827	0.893	0.735
	CCTH							0.812	0.812	0.889	0.727
PG1		0.857	0.831	0.849	2.059	1.867	1.956				
PG2		0.897	0.900	0.884	2.387	2.261	2.233				
PG3		0.839	0.840	0.824	1.680	1.683	1.557				
Purpose in Life (PL)	Complete							0.867	0.871	0.918	0.790
	OLGH							0.860	0.862	0.915	0.781
	CCTH							0.856	0.863	0.912	0.776
PL1		0.875	0.882	0.856	2.221	2.218	2.160				
PL2		0.902	0.867	0.912	2.515	2.011	2.721				
PL3		0.888	0.903	0.873	2.137	2.399	1.954				
Self-Acceptance (SA)	Complete							0.787	0.810	0.874	0.700
	OLGH							0.788	0.814	0.875	0.702
	CCTH							0.798	0.804	0.881	0.712
SA1		0.764	0.757	0.796	2.375	1.552	1.573				
SA2		0.885	0.896	0.884	1.559	2.124	2.043				
SA3		0.855	0.854	0.849	2.057	1.697	1.729				
Job Performance (JP)	Complete							0.940	0.943	0.949	0.653
	OLGH							0.927	0.931	0.939	0.606
	CCTH							0.942	0.945	0.951	0.660
JP1		0.759	0.722	0.767	2.009	2.047	2.210				
JP2		0.852	0.849	0.853	3.398	3.114	3.726				

JP3	0.814	0.767	0.820	2.824	2.453	3.089
JP4	0.818	0.713	0.853	2.961	2.095	3.858
JP5	0.801	0.815	0.770	2.562	2.757	2.472
JP6	0.850	0.851	0.839	3.076	2.951	3.087
JP7	0.818	0.726	0.854	2.919	2.316	3.678
JP8	0.691	0.717	0.697	2.069	2.285	2.172
JP9	0.852	0.809	0.799	2.660	2.498	2.661
JP10	0.848	0.798	0.856	3.249	2.395	3.511

Source: Field data, 2022

Item Loading Assessment

The factor loading shows how much an observable factor is stated to be constituted of the items under consideration (Yamamoto & Tanaka, 2015). Based on the suggestion of Hair et al. (2019), the lower limit for factor loadings should be greater than 0.7, with higher index loadings showing a strong association with a specific component (Pett et al., 2003). All measuring items loaded above the required threshold, except JP8 which loaded below (JP8= 0.693) but did not have any significant impact on the model's validity for the samples. It can be seen from Table 10 that the items loaded between 0.693 and 0.922 for complete samples. However, for CCTH and OLGH, the minimum item loaded was 0.682 and 0.678 respectively whereas the maximum was 0.934 and 0.904 in the same order. Consequently, the reliability of the indicators used in the study was confirmed.

Constructs Reliability

Sarstedt et al. (2019) posited that the minimum point for checking construct reliability should be a score of 0.70 and above for CA and 0.70 and above for CR. From Table 10, it can be observed that, the lower limit of CA scores for all constructs were 0.787, 0.788, and 0.798 for complete, OLGH, and CCTH samples respectively, while lowest CR scores for all constructs were 0.874, 0.875, and 0.881 for complete, OLGH, and CCTH models. Rho_A scores also met the minimum criteria of 0.70 as expressed by Hair et al. (2019). As a result, all the measures demonstrated adequate levels of dependability.

Convergent Validity

An AVE of 0.5 or higher indicates that the construct explains more than half of its component variance (Hair et al., 2019). As presented in Table 10, the AVE scores for all the constructs in this study are above the threshold of 0.5, that is, 0.653, 0.588 and 0.586 as the minimum scores for the complete sample, OLGH sample and CCTH sample respectively. As a result, the validity criteria for AVE estimations were met.

Multicollinearity of indicators

To assess multicollinearity, Variance Inflation Factor (VIF) was used as expressed by O'brien (2007). The threshold for determining the presence of multicollinearity is 10 and above for high outer VIF values (Asthana, 2020); while above 5 is known as conservative for outer VIF values (Alaudin and Nghiemb, 2010; Gomez et al., 2016, Hair et al., 2016). As presented in Table

10, the maximum Outer VIF for complete, OLGH and CCTH are 3.613, 3.347 and 4.334. This shows there is no multicollinearity of indicators.

Discriminant Validity (DV)

The DV is mostly determined in PLS-SEM by the heterotrait-monotrait (HTMT) ratio because of its robustness and dependability compared to Fornell-Larcker Criterion (Acquah et al., 2020; Henseler et al., 2015). Table 11 shows DV using HTMT;

Table 11: HTMT Ratio for full model

	AU	EM	JP	PWB	PG	PR	PL
AU	0.000						
EM	0.737						
JP	0.956	0.781					
PWB	0.973	0.879	0.944				
PG	0.821	0.691	0.819	0.991			
PR	0.837	0.620	0.823	0.952	0.982		
PL	0.806	0.823	0.849	0.974	0.823	0.760	
SA	0.671	0.919	0.738	0.745	0.552	0.497	0.740

HTMT Ratio for CCTH model

AU	0.000					
EM	0.749					
JP	0.967	0.840				
PWB	0.977	0.876	0.960			
PG	0.805	0.654	0.801	0.977		
PR	0.826	0.622	0.804	0.955	0.983	

PL	0.805	0.793	0.848	0.962	0.774	0.732	
SA	0.676	0.918	0.804	0.733	0.501	0.516	0.677
HTMT Ratio OLGH model							
AU	0.000						
EM	0.742						
JP	0.926	0.728					
PWB	0.960	0.935	0.897				
PG	0.823	0.820	0.801	0.923			
PR	0.832	0.653	0.810	0.938	0.975		
PL	0.777	0.927	0.819	0.989	0.872	0.743	
SA	0.729	0.920	0.717	0.858	0.756	0.553	0.947

Source: Field data, 2022

HTMT was assessed using a threshold of 1.0 (Franke & Sarstedt, 2019; Hamza & Arif, 2019). The HTMT findings indicated that all of the values were significantly different from the numerical value of 1.00, with the maximum HTMT scores of 0.991 for the entire model, 0.983 for CCTH model, and 0.975 for OLGH model, as shown in Table 11. This indicates a reasonable level of discriminant validity in all the models.

Structural Model Assessment

Following the examination of the fitness of the measurement model, this part examined the quality of the structural model. The structural model was evaluated in terms of potential common method bias, that is, using VIFs, path coefficient (β) and statistical significance (t-stats) to determine the power and bearing, coefficients of determination (R^2), effect sizes (f^2), and predictive

relevance (Q^2) scores to boost the results obtained (Hair et al., 2019). For all samples (complete, OLGH and CCTH), the bootstrap estimates in this study were based on 5000 bootstraps.

Common method bias

The possibility for common method bias was explored since multiple variables were measured. The factor-based PLS algorithm was utilized to test inner VIF (Cheng et al., 2019). As per Velsen et al. (2017) and Hair et al. (2014), ideal inner VIF scores must be less than 5.00 in order to rule out multicollinearity of latent variables. Table 12 presents the results for the inner VIF:

Table 12: Inner VIF

	Complete	OLGH	CCTH
AU	3.013	2.646	3.133
EM	3.108	3.410	3.136
JP	0.000	0.000	0.000
PWB	0.000	0.000	0.000
PG	3.713	4.314	3.222
PR	3.656	3.816	3.294
PL	3.029	4.284	2.628

Source: Field data, 2022

It can be deduced from the Table 12 that the highest inner VIF value of all constructs for complete model is 3.713, 4.314 for OLGH model and 3.294 for CCTH model, thus implying that the constructs used in this study are devoid of multicollinearity as prescribed by Hair et al. (2014).

Table 13 presents Diagnostic tests for Coefficients of the complete, OLGH and CCTH models.

Table 13: Coefficient of Determination and Effect size (f^2)

	Complete Model			OLGH Model			CCTH Model		
	R^2	Adjusted R^2	f^2	R^2	Adjusted R^2	f^2	R^2	Adjusted R^2	f^2
PWB >JP	0.803	0.802	4.082	0.722	0.719	2.592	0.831	0.830	4.910

Source: Field data, 2022

Coefficient of Determination

The coefficient of determination (R^2) is the most often used statistic to evaluate the factor structure. This R^2 scores represent the predictability of a given model (Al-Emran et al., 2019). R^2 results vary from 0 to 1, with greater values representing better effects of prediction ability (Hair et al., 2016). R^2 values of 0.75, 0.50, and 0.25, for example, are considered high, moderate, and low, accordingly (Al-Emran et al., 2019; Rezaei, 2015). It can be seen from Table 13 that, R^2 score for complete JP sample is 0.803, 0.722 for OLGH, and 0.831 for CCTH. These values are deemed to have significant prediction ability on the structural modeling. Practically, 80.3% of variations in JP is predicted by PWB of complete samples, 72.2% of variations in JP is predicted by PWB of OLGH samples and 83.1% of variations in JP is predicted by PWB of CCTH samples.

Effect size (f^2)

The effect size (f^2), which indicates the variation in R^2 when a certain predictive construct is excluded from the framework, can be utilized to determine if the eliminated construct has a substantial impact on the endogenous variables (Hair et al., 2016). According to Cohen (1988), effect size (f^2) scores of 0.02, 0.15, and 0.35 imply low, moderate, and high impacts, correspondingly. From Table 13, f^2 scores for complete, OLGH and CCTH samples are 4.082, 2.592 and 4.910 respectively, indicating strong effects on job performance (as per Cohen's f^2).

Significance of the Structural model

Before accepting the research outcome, the measurement framework was tested to ensure it complied with PLS-SEM standards. This was achieved, according to Hair et al. (2019), by identifying the direction and strength using the path coefficient (β) and degree of significance with t-statistics calculated from 5000 bootstraps, which also created a two-tailed 95 percent confidence interval (CI).

Table 14: Significance of the Structural model

	Full model				CCTH Model				OLGH Model			
	β	Standard deviation	T statistics	P-Value	β	Standard deviation	T statistics	P-Value	β	Standard deviation	T statistics	P-Value
AU-> PWB	0.321	0.012	26.314	0.000	0.345	0.019	18.463	0.000	0.291	0.019	15.402	0.000
EM-> PWB	0.171	0.009	18.068	0.000	0.178	0.014	13.133	0.000	0.178	0.013	13.266	0.000
PG-> PWB	0.215	0.015	14.177	0.000	0.198	0.020	9.761	0.000	0.238	0.021	11.228	0.000
PR-> PWB	0.176	0.011	16.096	0.000	0.176	0.015	11.937	0.000	0.163	0.016	9.895	0.000
PL-> PWB	0.264	0.014	18.275	0.000	0.256	0.020	12.899	0.000	0.280	0.017	16.778	0.000
SA-> PWB	0.001	0.006	0.224	0.823	0.006	0.008	0.688	0.491	-0.007	0.013	0.531	0.595
PWB -> JP	0.896	0.018	49.792	0.000	0.911	0.019	47.611	0.000	0.849	0.036	23.719	0.000

Source: Field Data, 2022

The results were presented in line with t-stats values proposed by Hair et al. (2019). According to them, t-stats values above 1.96 correspond to p-values < 0.05 which represent statistical significance of the model and vice versa. In addition, path coefficients were explained based on Cohen (1988) criteria which posit that the correlation coefficient (R) of 0.10 represents a weak correlation, R of 0.30 represents a moderate correlation and R of 0.50 and above represents a strong correlation. Generally, there was a statistically significant relationship between PWB and JP for the complete sample ($\beta = 0.896$, t-stat = 49.792 and p-value = 0.000 < 0.005); for CCTH ($\beta = 0.911$, t-stat = 47.611 and p-value = 0.000 < 0.005) and OLGH ($\beta = 0.849$, t-stat = 23.719 and p-value = 0.000 < 0.005)

The complete and individual models for CCTH and OLGH are presented in Figures 2, 3 and 4.

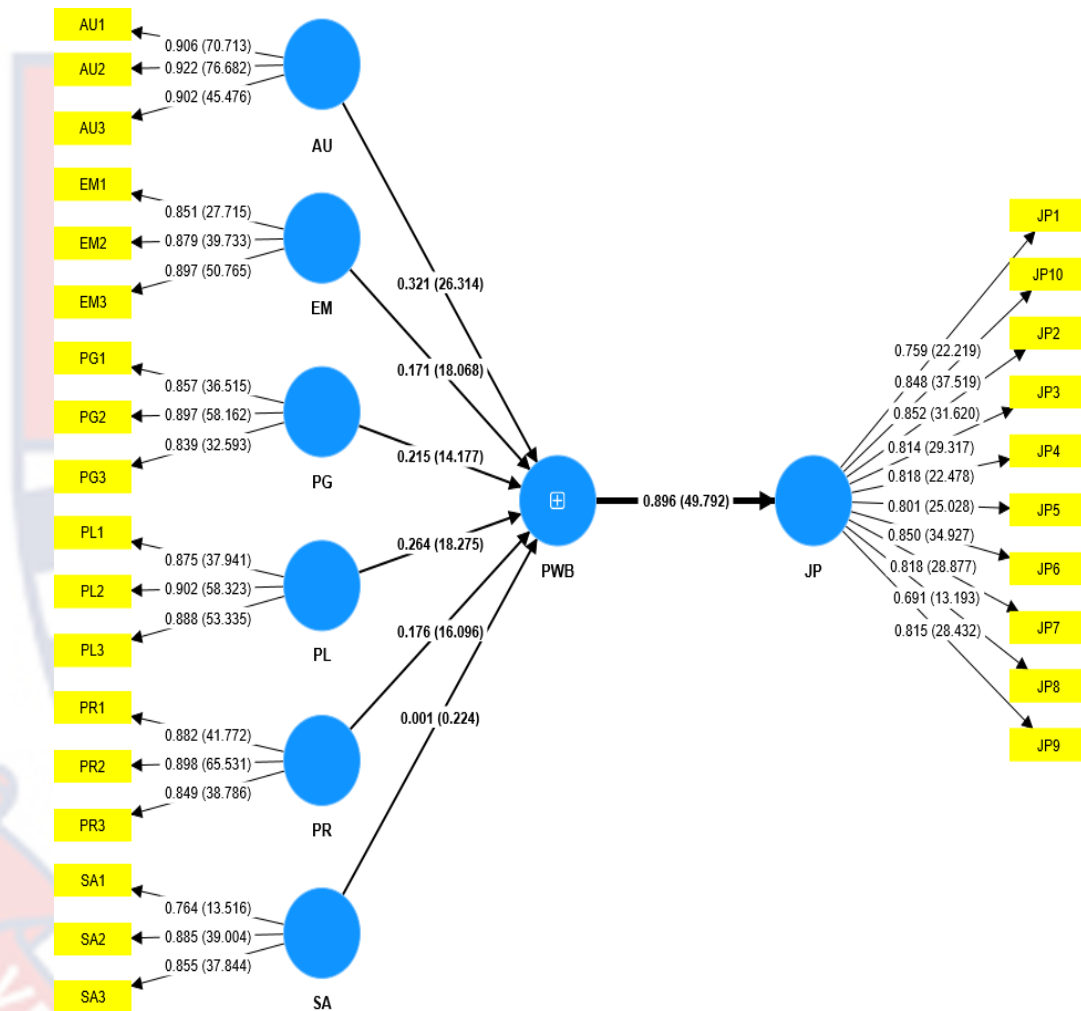


Figure 2: Outer Loadings, Path coefficients and bootstrapping results on the effect of PWB on JP in both hospitals

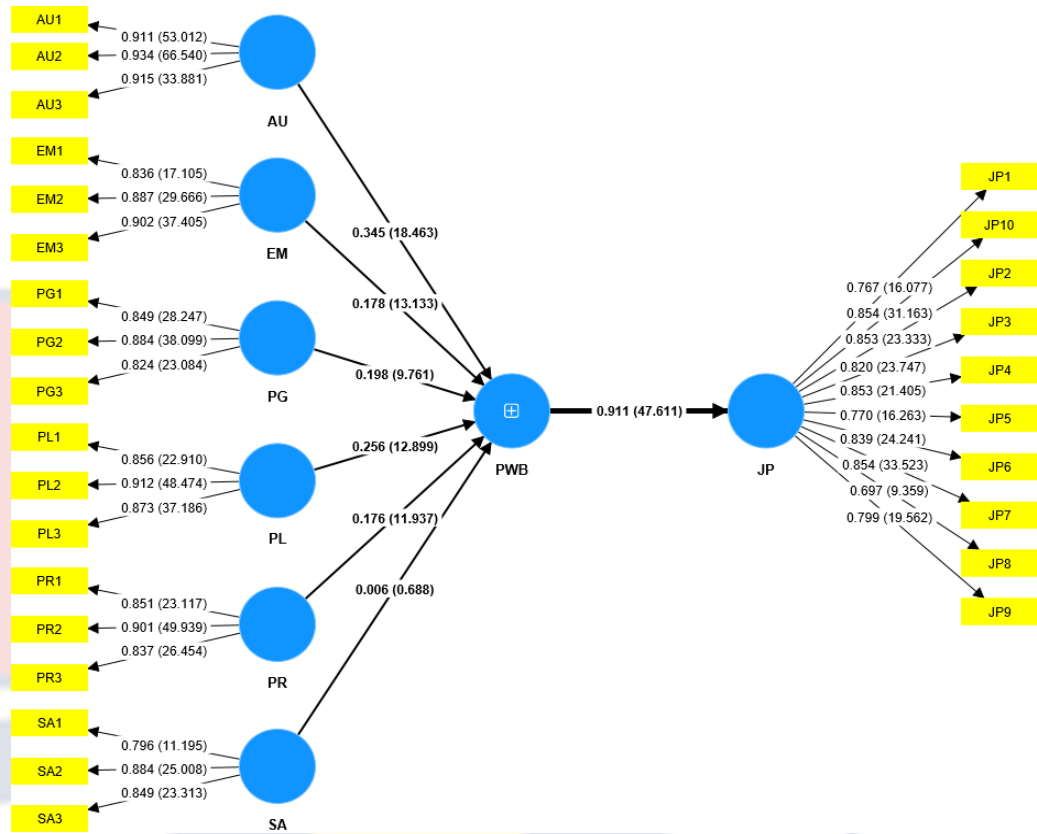


Figure 3: Outer Loadings, Path coefficients and bootstrapping results on the effect of PWB on JP in CCTH

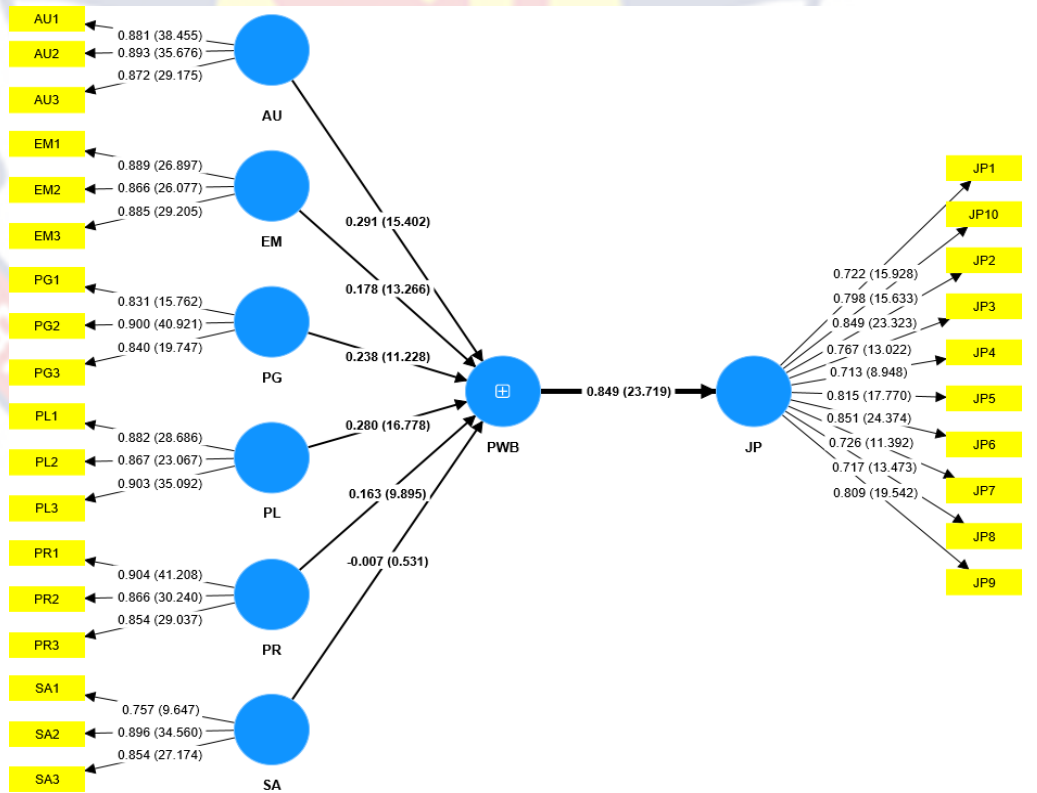


Figure 4: Outer Loadings, Path coefficients and bootstrapping results on the effect of PWB on JP in OLGH

Hypothesis One: There is a statistically significant relationship between psychological well-being and job performance of health workers at OLGH

This hypothesis aimed at determining the relationship between psychological well-being and job performance of OLGH health workers. The path coefficient, p values, and t-statistic were used to test this relationship. The related result demonstrated a favorable relationship between psychological well-being and job performance of OLGH health workers ($\beta = 0.849$, t-stat = 23.719 and p-value = $0.000 < 0.005$), hence providing statistically significant reason to reject the null hypothesis which states that ‘There is no statistically significant relationship between psychological well-being and job performance of health workers at OLGH.’ This implies that increasing psychological well-being will potentially increase job performance in rural hospitals.

Hypothesis Two: There is a statistically significant relationship between psychological well-being and job performance of health workers at CCTH

The focus of this hypothesis was to examine the relationship between psychological well-being and job performance of CCTH health workers. This premise was supported by a favorable and considerable relationship between the latent variables (PWB and JP), as indicated in Table 13 ($\beta = 0.911$, t-stat = 47.611 and p-value = $0.000 < 0.005$). As a result, the study found that psychological well-being had a considerable impact on CCTH workers’ job performance. In view of this, the null hypothesis which states that ‘There is no statistically significant relationship between psychological well-being and job performance of health workers at CCTH’ was rejected. This implies that

increasing psychological well-being of urban health workers will result in improved job performance.

Hypothesis Three: There is a statistically significant difference between the effect of psychological well-being on job performance of health workers at OLGH and CCTH

The third and final hypothesis, which aimed to test whether the effect of psychological well-being on job performance in OLGH is significantly different from the effect of psychological well-being on job performance at CCTH was accomplished through PLS Multi-Group Analysis (MGA) and the Welch-Satterthwait test (Sarstedt et al. 2011). Table 15 shows the path coefficient (Path Mean Difference). A comparison of the hospital-specific path coefficients in Table 15 reveals a slight difference in the effects. It is observed that PWB had a stronger effect on JP of health workers in CCTH than that of OLGH. However, it was necessary to ascertain if these numerical variations between the path coefficients for each hospital are statistically significant.

The multi-group comparison for Our Lady of Grace Hospital and Cape Coast Teaching Hospital are presented in Table 15.

Table 15: Multi-group Comparison for OLGH and CCTH

	<i>Bootstrap MGA</i>	<i>Permutation mean difference</i>	<i>Parametric test</i>	<i>Welch- Satterthwait test</i>
AU -> PWB	-0.039*	0.052**	-0.039*	-0.039*
EM -> PWB	-0.009	-0.065	-0.009	-0.009
PWB -> JP	-0.079*	-0.008*	-0.079*	-0.079*
PG -> PWB	0.010	-0.032	0.010	0.010
PR -> PWB	0.004	0.049	0.004	0.004
PL -> PWB	0.002	-0.054	0.002	0.002
SA -> PWB	-0.002	0.045	-0.002	-0.002

Source: Field Data, 2022

Notes: * Significant at 0.10, **significant at 0.05

Table 15 reveals the differences in the comparison of the two path coefficients for OLGH and CCTH, and gives the outcomes of multi-group comparisons relying on the Bootstrap MGA, parametric test, permutation test, and Welch-Satterthwait test. The study reveals that the outcomes of the multi-group comparative tests agree quite closely in general. However, absolute values of Bootstrap MGA (-0.079*), permutation test (-0.008*), parametric test (-0.079*), and Welch-Satterthwait test (-0.079*) revealed significant differences at 10% significant level between the effect of PWB on JP in respect of the two hospitals. The effect of psychological well-being on job performance at CCTH was greater than the effect of psychological well-being on job performance at OLGH.

Robustness

The robustness focused the direct impact of psychological well-being on job performance for the complete, OLGH and CCTH samples. This is supported by the importance-performance and total effects tests. Table 16 shows the robustness of results. The total effect demonstrates the extent to which psychological wellbeing (independent variable) influences job performance (dependent variable) in the two hospitals. The performance-importance ratio was obtained by dividing performance by the total effect.

Table 16 reveals that, the direct influence of psychological well-being on job performance is 89.6% in the complete sample, 91.1% in the CCTH sample and 84.9% in the OLGH sample.

Table 16: IMPA results for the Job Performance as the target variable

	Total effect	Performance	Performance- Importance
Complete	0.896	76.974	85.91
CCTH	0.911	72.118	79.16
OLGH	0.849	82.929	97.68

Source: Field data, 2022

The Predictive Relevance (Q^2)

The predictive relevance (Q^2) of the construct (job performance) which acted as the dependent variable in the SEM is presented in Table 17. Q^2 values > 0 are recommended (Henseler et al., 2015). Thus, the closer the Q^2 value to the adjusted R square, the better. Henseler et al. (2015) provided Q^2 values criteria; $0.02 \leq Q^2 < 0.15$ (weak effect), $0.15 \leq Q^2 < 0.35$ (moderate effect) and $Q^2 > 0.35$ (strong effect).

Table 17: Constructs and Indicators Predictive Relevance

Latent Variable	Complete model			CCTH model			OLGH model		
	Q ²	RMSE	MAE	Q ²	RMSE	MAE	Q ²	RMSE	MAE
Job Performance	0.802	0.452	0.329	0.832	0.420	0.320	0.714	0.557	0.391
PWB	0.997	0.058	0.043	0.996	0.061	0.046	0.996	0.065	0.046

Source: Field data, 2022

It is observed from Table 17 that, Job Performance is strongly explained by Psychological Well-being (PWB) in the complete, CCTH and OLGH models, because $Q^2 > 0.35$ in all models. Also PWB is strongly explained by the exogenous variables.

Discussion of results

This subsection gives a full explanation of the findings reported in the preceding paragraphs in relation to the study's specific objectives.

Objective 1: The psychological well-being of health workers at CCTH and OLGH amidst COVID-19

The findings of this study revealed that amidst the pandemic, nurses and midwives had a high degree of psychological well-being. This is revealed in the mean scores of the individual dimensions that were used in measuring psychological well-being. Observing the individual dimensions, (as shown in Table 4), the mean scores for 'Autonomy during COVID-19' were all greater than 4. These mean scores represent a high level of autonomy among respondents during the pandemic. According to Ryff (1989), high autonomy implies that respondents are self-sufficient, have internal locus of control and influence over their decisions and initiatives, without relying on societal forces.

Similarly, the second dimension, 'Environmental Mastery during COVID-19' recorded scores greater than 4. This represents a high level of environmental Mastery amidst the pandemic. High levels of environmental mastery imply that respondents developed an atmosphere that meets their personal and psychological requirements (Ryff, 1989). The scores for 'Personal Growth amidst the pandemic' ranged from 3.7 to 4.1, also depicting a high level of growth for respondents. High scores in personal growth imply that respondents are open to experiences and challenges that usher them into greater heights. Also, this implies respondents reveal some improvements in their personal lives (Ryff, 1989). The fourth dimension, 'Purpose in Life during COVID-19' recorded mean scores above 4 which predict a high level of Purpose in life during the pandemic. As expressed by

Ryff (1989), high scores in Purpose in Life indicate that respondents were certain about their purpose, drive and direction amidst the pandemic.

With regards to ‘Positive Relations amidst COVID-19’, the means scores ranged from 3.6 to 4.0 which indicate a high level of positive relations among respondents. The high mean values suggest that despite the COVID-19 government restrictions such as social distancing, respondents were able to engage in quality interactions (Ryff, 1989). The last dimension measured was ‘Self-Acceptance during COVID-19’. The mean scores were all above 4, representing a high level of self-acceptance. According to Ryff (1989), high levels of self-acceptance imply that respondents have accepted all of the attributes that contribute to their personality.

Generally, psychological well-being of respondents was high amidst the pandemic. This finding complements the conclusions of Obrenovic et al. (2020) and Harju et al. (2021) who found that hospital staff have a sufficient degree of psychological well-being during pandemics such as COVID-19. Although the general level of psychological well-being was high, the psychological well-being of nurses and midwives at OLGH was relatively higher than that of CCTH. Relating this findings to COVID-19, it can be said that while previous research reported significantly higher levels of short-term psychological suffering, including depression, anxiety and sleeplessness (Fioravanti et al., 2022), this study’s findings are contrary to those effects of COVID-19. This implies that health workers in both the rural and urban hospitals used in this study did not experience low levels of psychological well-being amidst the pandemic. These workers were able to handle the various levels of stress and anxiety despite their level of exposure to the virus.

Objective 2: The job performance of health workers at OLGH and CCTH amidst COVID-19

The findings demonstrated that job performance of health workers during the pandemic was statistically relevant for decision making, (as seen in Table 7). According to the analysis, the mean scores for all performance indicators were high (all mean scores were greater than 4.00). This implies that, nurses and midwives effectively participated in the job responsibilities explicitly stated in their job description as described by Borman and Motowidlo (1993). Subsequently, this also implies that efficiency of work, quality of work, ability to plan, organise and prioritize work were all ensured in both CCTH and OLGH amidst the pandemic (Koopmans et al., 2014). The high scores in indicators of contextual performance signify that behaviours that endorse, support, and defend organisational objectives were upheld by nurses and midwives in both hospitals as postulated by Borman & Motowidlo (1993). Finally, nurses and midwives in both hospitals adjusted well to novel and unpredictable work situations, and were able to develop creative solutions to problems.

The findings are consistent with the findings of Pourteimour et al. (2021) and Hoşgör et al. (2022), who discovered that job performance of health workers was improved during the pandemic through contextual performance, task performance, and adaptive performance. Although the general level of job performance was high, the job performance level of nurses and midwives at OLGH was relatively higher than that of CCTH. In light of the pandemic, it can be noted that COVID-19 did not have any negative influence on job performance of

employees in both hospitals. Irrespective of the changing job demands and resources as a result of the pandemic, job performance was effectively carried out.

Objective 3: Effect of psychological well-being on job performance at OLGH

This study has revealed a favourable influence of psychological well-being on the job performance of nurses and midwives in OLGH. This indicates that an improvement in the ability to sustain a reasonable quality of life, which allows a person to get the most out of their daily activities without suffering excessive exhaustion, would contribute to a rise in the efficiency of OLGH health workers. Again, an increment in their capacity to maintain present and future living standards, build genuine connections with people and keep a network of supportive people would have a major influence on the rate at which OLGH health workers successfully accomplish duties.

This is similar to the finding of Kundi et al. (2020) who posited that psychological well-being alongside financial, social and physical well-being enhances work-related performance during uncertain times such as amidst a pandemic. Additionally, the findings of this study align with the judgements of Usman (2017) who claimed that improved psychological health is beneficial for improving employee work performance in both projectized and non-projectized organisational structures.

In disparity with the findings of this study, Nedungadi et al. (2018) and Cooper et al. (2019) reported that sustaining close connections in a pandemic is challenging and stressful for many health workers especially those in rural areas,

and this results in impaired communication which ultimately results in an inability to properly carry out job-related tasks.

Objective 4: Effect of psychological well-being of job performance at CCTH

The findings of this objective, comparable to the outcomes of the third objective of this study, suggested that psychological well-being (PWB) has a beneficial and significant influence on the job performance of CCTH nurses and midwives. In consequence, an increase in the psychological well-being would contribute to an increase in the efficiency of CCTH health workers. This can be related to Obrenovic et al. (2020) who discovered that psychological well-being has a direct supportive relationship with job-related performance as found in this study. The results of this objective is also similar to that of Rego (2009) who found that, emotional health at work accounts for 23% of the variation in individual job performance. In contrast, however, Luna-Arocas and Danvila-del-Valle (2021) asserted that positive psychological well-being has no substantial influence on job performance since it is not a primary factor of job success.

Objective 5: The difference between the effect of psychological well-being on job performance of health workers at OLGH and CCTH

According to the findings of this study, there is a substantial difference between the effect of psychological well-being on job performance of health workers in OLGH and CCTH (at 10% significant level). More precisely, effect of psychological well-being on the job performance of workers in CCTH is greater

than the effect of psychological well-being on job performance at OLGH. This implies that, the influence of psychological well-being on job performance varies with geographical locations.

The findings of this study agree with the study of Nepomuceno et al. (2016) who found significant differences between the well-being of rural and urban inhabitants, with rural inhabitants having a relatively higher score in their well-being as compared to those in urban centres in Brazil. Further, these findings are associated with the study of Dahlberg et al. (2018) who discovered that the well-being of people residing in rural areas was higher than the well-being of urban samples, attributing the low level of well-being in urban areas to absence of communitarism and neighborhood alienation.

To comment on all the findings, the researcher believes that, first, the high levels of psychological well-being and job performance in both hospitals could be because the hospitals place great emphasis on the well-being of its staff and ensure they are highly catered for in that regard. It is also worth noting that, although the general level of psychological well-being was high, specific responses to some of the statements measuring psychological well-being call for attention. For instance, there was a high mean score for ‘since the time of the pandemic, the demands of everyday life often get me down’. This implies that, without the continuous necessary support, health workers may be overweighed by work demands.

Further, this current findings of this study could also be attributed to the fact that the fears associated with the pandemic have subsided after the introduction of the vaccines. The researcher believes that, OLGH may have reported a relatively

higher well-being and performance because the number of patients and cases they attend to are comparatively lower than that of CCTH.

Chapter Summary

This chapter presented the results and discussions of the study. Results were presented in the order of research questions and hypotheses. The demographic characteristics of the respondents were first presented. Mean, standard deviation and the independent t-test were employed to achieve research objective one and two. The results showed that respondents recorded a high level of psychological wellbeing in both hospitals. For the individual samples, the psychological wellbeing of OLGH health workers (rural hospital) was relatively higher than the psychological well-being of CCTH health workers (urban hospital). Also, the level of job performance was high in both hospitals. However, job performance level in OLGH was comparatively greater than job performance level in CCTH.

PLS algorithm was utilized for objectives 3 and 4 while Multigroup PLS-SEM was employed for objective five. The first hypothesis, which projected that psychological well-being has no influence on job performance in OLGH, was rejected. Similarly, the second hypothesis, which claimed that psychological well-being had no influence on job performance in CCTH, was also rejected. The final hypothesis which tested differences in the effect of psychological wellbeing on job performance in the two hospitals revealed that, the effect of PWB on Job performance was greater in CCTH than the effect of PWB on job performance in OLGH. Relevant literature were given to support the findings of the study.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents the summary, conclusions and recommendations of the study. While the summary presents a concise overview of the research objectives, methods and findings, the conclusions cover the overall results concerning the findings of the study with regards to the research questions and hypotheses. Finally, this chapter provides recommendations for policy makers and directions for future research.

Summary of the Study

This study was conducted on psychological well-being and job performance of health workers amidst COVID-19. Specifically, the study sought to perform a comparative analysis of the psychological well-being and job performance between urban and rural health workers. Cape Coast Teaching Hospital was the urban hospital used in this study whereas Our Lady of Grace Hospital served as the rural hospital. The study had five objectives; (a) to assess the psychological well-being of health workers at CCTH and OLGH (b) to assess the performance of health workers at CCTH and OLGH (c) to examine the influence of psychological well-being on job performance of health workers at OLGH amidst COVID-19 pandemic (d) to examine the influence of psychological well-being on job performance of health workers at CCTH amidst COVID-19 pandemic and (e) to assess the differences in the effect of psychological well-being on job performance of employees of OLGH and CCTH. The first two objectives were translated into

research questions. Literature review provided grounds to test objectives three, four and five as hypotheses.

Guided by the post-positivism research paradigm, the study employed a quantitative approach and an explanatory research design. The target population for the study comprised all full time nurses and midwives in CCTH and OLGH. In all, a total of 1,089 nurses and midwives from the two hospitals constituted the population for the study. With the help of Adam's (2020) Sample Size Determination Table, a corresponding sample size for such population at 95% confidence level and 5% significance level was estimated at 219. The researcher however retrieved a total of 262 questionnaires, which exceeded the minimum sample size, for analysis. The population was stratified based on hospitals. Out of the 262 sample size, 143 anonymous respondents were from CCTH while the remaining 119 were from OLGH. The stratified random sampling technique was used in distributing questionnaires to the respondents in each hospital.

Data for the study were gathered through the use of a structured questionnaire. Items in the questionnaire were adapted from two standardized scales namely; Ryff's Psychological Well-being Scale which had 18-items (Ryff, 1989) and the Individual Work Performance Scale by Koopmans et al. (2014) from which 10 items were adapted. Psychological well-being was measured as a second-order construct with six dimensions (autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance). The dependent variable was job performance and was measured as a composite in three dimensions; task, contextual and adaptive performance. The demographics of the

data, as well as the research questions, were examined using frequencies, percentages, mean, and standard deviation. Hypotheses 1, 2 and 3 were tested with PLS SEM.

Key findings

This study arrived at the following findings:

1. Psychological well-being was high in both hospitals amidst the pandemic.
2. Job performance amidst the pandemic was high in both rural and urban hospitals.
3. Health workers at OLGH recorded a relatively higher level of psychological well-being in relation to their levels of autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance as compared to health workers at CCTH.
4. The level of job performance (task, contextual and adaptive performance) of health workers at OLGH was comparatively higher than the level of job performance of health workers at CCTH.
5. Psychological well-being had a significant positive effect on job performance in both rural and urban hospitals.
6. The influence of psychological well-being on job performance in CCTH (urban hospital) was greater than the influence of psychological well-being on job performance in OLGH (rural hospital).

Conclusions

The aim of this study was to assess the influence of psychological well-being on job performance of health workers amidst COVID-19 and further examine differences in hospital-specific estimates based on geographical location of each hospital. Deducing from the findings of this study, it is possible to extrapolate that, despite the fears and anxieties associated with the COVID-19 pandemic, nurses and midwives at CCTH and OLGH have maintained exceptional levels of psychological well-being and job performance. It can also be inferred that a pandemic is not an automatic indicator of poor mental health and with the necessary psychological support, workers can maintain high levels of psychological well-being even in the midst of a pandemic. This also implies that, providing adequate job resources empowers employees to be productive despite changing work demands of health workers amidst a pandemic.

Further, the substantial influence of psychological well-being on job performance of both hospitals portray that irrespective of geographical location, enhancing the psychological well-being of health workers will lead to increase in their performance. Lastly it can be deduced from the findings that the variation in the effect of psychological well-being on job performance is an indication that contextual factors influence both psychological well-being and performance. Practically, improved psychological well-being increases job performance irrespective of location.

This study has contributed to expanding the corpus of research on employees' psychological health and job performance in organisations. It has also

bridged the gap of limited studies on multi-group analysis of rural and urban health workers. This study provides a basis for decision-makers to design context-specific policies or allow for some flexibility in policy implementation depending on prevailing environment. Future studies are anticipated to draw insights from this study and add on it.

Recommendations for Policy and Practice

On the basis of this study's results and conclusions, the following recommendations are offered:

1. To sustain the high level of psychological well-being obtained in this study, there should be promotion of resilience training programmes and enforcement of leave policies to promote leisure and relaxation practices. As established by psychologists, taking time off work to engage in fun activities, visit sceneries and create new memories can help an individual build resilience, become poised for future tasks and build a strong mental fortitude.
2. Further, the importance of mental health support services and resources should be highlighted to employees. Management of the hospital should encourage employees to seek help if they are struggling with mental health issues and make mental health resources available to them.
3. In an attempt to foster high level of job performance, management of the hospitals should continue to provide a work environment which is conducive for personal and professional growth and as well encourage strong social networks such as a healthy supervisor-subordinate relationship

within the facilities. Management should enhance opportunities for team-building activities, encourage regular communication and feedback, and promote a positive and inclusive workplace culture.

4. Lastly, the Ministry of Health should consider contextual factors when designing policies for health workers. In the same vein, hospitals should implement policies in light of community/contextual factors.

Suggestions for Further Research

- This study focused on nurses and midwives in two hospitals, hence, a comprehensive study could be conducted to cover all health workers in the hospital work environment.
- The current study concentrated on hospitals in one region (Central Region of Ghana). Further studies could be conducted to include more hospitals in different regions or in different institutions.
- Future studies on novel issues such as a pandemic should be conducted during the initial stages when the novelty of the situation is overwhelming.

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APPENDIX A

**UNIVERSITY OF CAPE COAST
COLLEGE OF HUMANITIES AND LEGAL STUDIES
SCHOOL OF BUSINESS
DEPARTMENT OF HUMAN RESOURCE MANAGEMENT**

Introduction

The researcher is a graduate student in the University of Cape Coast who is conducting a study on **Psychological Wellbeing and Job Performance of Health Workers Amidst COVID-19 Pandemic**. I would be grateful if you could respond to the items in this questionnaire. Your responses will be completely anonymous and confidential. Most importantly, approval to conduct this study has been given by your institution.

Thank you for your cooperation.

SECTION A: Demographic Characteristics

Kindly select the appropriate response

1. Sex :
 - A. Male []
 - B. Female []

2. Kindly indicate your age range
 - A. Less than 30 years []
 - B. B. 30-40 years []
 - C. C. 40-60 years []

3. How long have you worked for the organisation?
 - A. Less than 3 years []
 - B. B. 3-6 years []
 - C. C. Above 6 years []

SECTION B: Psychological Wellbeing amidst COVID-19

This section seeks responses on the state of your psychological wellbeing amidst the COVID-19 pandemic. Kindly tick (√) the option that best represents your opinion for each statement.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree

	STATEMENTS	1	2	3	4	5
1.	I tend to be influenced by people with strong opinions especially in times like this					
2.	I have confidence in my own opinions, even if they are different from the way most other people think					
3.	I judge myself by what I think is important, not by the values of what others think is important					
4.	Since the time of the pandemic, the demands of everyday life often get me down					
5.	In general, I feel I am in charge of the situation in which I live					
6.	I am good at managing the responsibilities of daily life with or without COVID-19					
7.	For me, life has been a continuous process of learning, changing, and growth since the time the pandemic started					

8.	I think it is important to have new experiences such as COVID-19 that challenge how I think about myself and the world					
9.	I gave up trying to make big improvements or changes in my life when the pandemic set in					
10	Maintaining close relationships has been difficult and frustrating for me due to COVID-19					
11	People would describe me as a giving person, willing to share my time with others irrespective of the pandemic					
12	I have not experienced many warm and trusting relationships with others ever since COVID-19 set in					
13	Some people wander aimlessly through life, but I am not one of them					
14	Since the time of the pandemic, I live life one day at a time and don't really think about the future					
15	I sometimes feel as if I have done all there is to do in life					
16	I like most parts of my personality even during the pandemic					
17	When I look at the story of my life, I am pleased with how things have turned out so far, irrespective of COVID-19					
18	In many ways I feel disappointed about my achievements in life					

SECTION C: Job Performance amidst COVID-19

This section seeks your responses on performance amidst the COVID-19 pandemic. Kindly tick (✓) the option that best represents your opinion for each statement.

1 = Strongly Disagree, **2** = Disagree, **3** = Neutral, **4** = Agree and **5** = Strongly Agree

	STATEMENTS	1	2	3	4	5
1	When COVID-19 set in, I managed to plan my work so that it was done on time					
2	I kept in mind the results I needed to achieve in my work					
3	I was able to set priorities to enable me carry out my work efficiently					
4	On my own initiative, I took on challenging tasks when they were available					
5	I probed all relevant sources to better understand the pandemic					
6	I actively participated in meetings and/or consultations to improve work					
7	I involved others when it was necessary to ensure quality performance					
8	I easily adjusted to changes in my work					
9	I developed coping mechanisms to deal with the pandemic					
10	I came up with creative solutions to new problems					

Thank you.