DETERMINANTS OF OCCUPATIONAL STRESS AMONG HEALTH WORKERS IN THE ACCIDENT AND EMERGENCY DEPARTMENTS IN MULAGO AND KIRUNDU NATIONAL REFERRAL HOSPITALS IN KAMPALA

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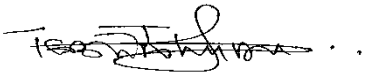
Declaration

I, John Paul Tebita hereby affirm that this is my original work and has never been presented to any other institution. pieces of work from other authors have been duly acknowledged.

Signature  Date: 5TH/FEB/2025

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I extend my heartfelt appreciation to all those who have assisted me on this journey. I am deeply grateful to my family for their unwavering love, encouragement, and perseverance. I was able to persevere because of your unwavering support and confidence in me.

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Dedication

I dedicate this work to my family, whose steadfast support, patience, and affection have been my most weighty source of encouragement and strength. To my parents, you have been a solid support, with solid belief in my competencies. To my siblings, I can’t miss how resolute your encouragement has been to me throughout this journey.

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Abstract

Occupational stress is an extensive matter rising from the interaction between job-related elements and an individual's psychological and physiological condition. It has become a universal concern. Beyond the personal well-being of individuals, the effects of occupational stress impact the dynamics of organizations, productivity, and the health of the workforce. Healthcare workers, in pressure settings like the Emergency Department, experience a more volume of occupational stress compared to other professions.

The study employed a cross-sectional research methodology to investigate factors contributing to occupational stress among healthcare professionals in the Accident and Emergency Departments of two hospitals in Kampala. A census sampling method was used to include all eligible participants due to the small number of healthcare workers (73) in these departments. Data collection utilized the new Brief Job Stress Questionnaire with 57 items assessing occupational stressors, stress reactions, and buffering factors, alongside six additional items evaluating coping mechanisms. Data analysis was conducted at three levels—univariate, bivariate, and multivariate. Chi-square analysis was used at the bivariate level to identify significant associations between demographic, occupational characteristics, and stress levels, providing insights into the determinants of occupational stress.

The participants were predominantly young (51.6% aged 20–30), female (60.9%), and working as nurses (51.6%) or doctors (45.3%), with most having 1–5 years of experience in their roles. The study revealed that 53.13% of respondents experienced moderate stress, while 26.56% reported high stress levels. Key factors associated with stress included age, marital status, education level, work hours, shift schedules, years of experience, church attendance, and involvement in extracurricular activities. Logistic regression identified that limited experience in the department (1–5 years) and longer working hours were significant predictors of stress, while participation in extracurricular activities reduced the likelihood of stress. The study also highlighted mixed coping strategies, with reliance on friends, faith, or personal time.

The study highlighted work experience, hours worked, education level and coping mechanisms as key determinants of Occupational stress. By identifying these stressors, the findings provide a foundation for developing targeted interventions to mitigate stress and promote the well-being of healthcare workers in high-demand environments.

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Chapter One

1.0 Introduction

Occupational stress is an extensive matter rising from the interaction between job-related elements and an individual's psychological and physiological condition. It has become a universal concern. (International Labor Organization [ILO], 2016). Beyond the personal well-being of individuals, the effects of occupational stress impact the dynamics of organizations, productivity, and the health of the workforce (Khan, 2019). Healthcare workers, in pressure settings like the Emergency Department [ED], experience a more volume of occupational stress compared to other professions (Valiee *et al.,* 2014). The emergence department is different in such a way that it is characterized by unpredictable nature, subjection to trauma, and existence of life-threatening circumstances, which places substantial strain and pressure on the doctors (Healy & Tyrrell, 2011). The ED nursing is classified as a high-demand occupation by the Job Demand-Control-Support (JDCS) model; thus, workers are more probable to encounter high levels of stress in comparison to those in other broad sectors (Karasek, 1990).

The time bound and challenging nature of treatment in emergency can somewhat contribute to the increase in the prevalence of despair, anxiety, and burnout among health workers in the ED (Mohite *et al.,* 2014). Nonetheless, the influence of accompanying elements such as support from the organizational, connections with colleague, and how satisfied with work one is should not be disregarded (Abraham *et al.,* 2018). Also, It is vital to recognize specific stressors that are special to the ED environment so as to develop therapies targeting to decrease stress and do away or minimize burnout (Abraham et al., 2018). A study by Portero de la Cruz *et al.'s* (2020) revealed that over 28% of healthcare professionals were affected by stress, resulting in an estimated annual health expense between 150 to 372 million euros due to the associated health consequences. Health care professionals, including those in the nursing profession, experience direct exposure to disease, suffering, and workplace violence, which results in significant stress (Ito *et al.,* 2014). Studies underscore the detrimental effects of work-related stress on the mental and health of nurses, leading to an increase in absenteeism, increased rates of turnover among the staff, reduction in the quality of patient care, and

increased emotional weariness (Ito *et al.,* 2014; Valiee *et al.,* 2014). The aforesaid results underline the immediate need for a detailed grasp of stress factors specific to EDs in order to effectively lessen their effect on the well-being of health workers.

In China, an online survey among physicians and nurses working in EDs was done. The results revealed that 64.71% of the respondents had high or very high levels of occupational stress. Also, the study acknowledged one of the main cause of stress was the extremely demanding workload (Lv *et al.,* 2023). Further, a study by McCormick et al. (2023) showed that nurses had highlevels of both stress and burnout in comparison to doctors. The study revealed lower levels of job satisfaction, work involvement, and support from superiors compared to physicians. The theme analysis emphasized matters like poor leadership, hefty workload and insufficient management assistance as stress contributors (McCormick *et al.,* 2023). Moreover, unusual incidences such as acts of terrorism or health crises like the COVID-19 pandemic deepen the already higher levels of stress experienced by ED healthcare personnel (Duke *et al.,* 2015a). This study aimed at investigating the determinants of occupational stress and coping strategies among ED health workers at two institutions in Kampala in order to address the information gaps and obstacles. The study endeavored to determine the specific stressors that contribute to occupational stress and to find effective coping strategies through the use of validated survey measures.

1.1 Problem Statement

Occupational stress is a serious challenge with substantial impact on the physical and mental health of healthcare workforce, it is also of great usefulness to healthcare delivery at the Accident and Emergency Department (ED) of hospitals in Kampala. McVicar *et al.,* (2014) reveals the widespread physiological effect of stress, including cardiovascular, metabolic, and gastrointestinal issues, which become worse with increased stress levels. Furthermore, stress that healthcare staff experience in the ED is worsened by psychological consequences such as emotional fatigue, heightened arousal, and increase in burnout rates. According to research by Birhanu *et al*. (2018), stressful moments have

consequences that are not desirable on the health of individuals but the preservation of staff, which results in high turnover rate. Healy and Tyrrell (2011)- underscore the conceivable consequences of stress on ED staff include distress, absenteeism and burnout. Furthermore, unhealthy coping strategies like smoking and alcohol consumption have been connected with occupational stress among ED nurses compared to those working in different departments (Boyaci *et al.,* 2014).

Occupational stress affects productivity, and leads increased rates of employee absenteeism. Also, it substantially affects the general operation or functioning of the organization. This includes increased staff turnover, bad morale and employees coming to work when unwell. Ultimately, this affects the safety and quality of patient care (Birhanu *et al.,* 2018). Currently, health workers suffering from stress surpass 28%, this has a substantial financial bearing, resulting in an valued yearly cost ranging from 150 to 372 million Euros due to its negative health effects (Portero de la Cruz *et al.,* 2020). There is a insufficient research on the determinants of occupational stress in the vicinity of hospitals in Kampala, despite the recognition of stress as a critical component of the healthcare workforce's dynamics. Referral Hospitals in Kampala are crucial components of Uganda's healthcare system, in spite of their resource limitations and high patient volumes. Furthermore, the literature highlights the health consequences of occupational stress (Musiimenta et al., 2022) and the correlation between occupational stress and performance (Nyakamadi, 2019), with the majority of studies focused exclusively on nurses (Musiimenta et al., 2022; Nyakamadi, 2019; Johansson, 2014). By conducting an analysis of the factors that contribute to occupational stress among healthcare professionals in the Accident and Emergency Department at two hospitals in Kampala, this study aimed to address this gap. The goal of this study was to establish the stress levels and strategies of copying among ED health workforce. The study results will be used to developing targeted initiatives and support systems that can improve well-being in the workplace, boast delivery in the healthcare system, and, eventually, lead to improvements in patient outcomes.

1.2 Main Objective

The purpose of the study was to investigate the determinants of occupational stress among Health

Workers in the Accident and Emergency Department in two hospitals in Kampala.

1.2.1 Specific Objectives

I. To determine the prevalence of perceived job-related stress among healthcare workers in the accident and emergency (A&E) department at two hospitals in Kampala.

II. To identify the factors associated with occupational stress among health workers in the accident and emergency unit at two hospitals in Kampala.

III. To assess coping mechanisms of health workers in Accident and Emergency Department at two hospitals in Kampala.

1.3 Scope of the Study

1.3.1 Geographical Scope:

The geographical scope of this study covered doctors working explicitly in the A&E department of Mulago and Kirudu National Referral Hospital, situated in Kampala, Uganda. The study focused on understanding the determinants of occupational stress among health workers within this specific healthcare setting.

1.3.2 Conceptual Scope:

The conceptual scope of the research was around finding the factors contributing to occupational stress among health workers in the A&E department. This included investigating health worker's perceptions to workload, environmental stressors, organizational support systems and interpersonal dynamics. The study aimed to provide an all-inclusive understanding of the multidimensional nature of occupational stress within the context of emergency medical services.

1.3.3 Time Scope:

The time scope of the study involved a defined period during which data collection and analysis would be conducted. In regard to this study, it was from August 2023 to September 2024.

1.4 Significance of the study

The study has a lot of substantial implications for a number of stakeholders in the health sector and beyond. The discoveries may inspire specific actions to improve the conditions of work and quality of

treatment for patients by finding and reducing the different stressors faced by A&E health workers. Understanding these challenges faced by the health workforce in this challenging environment is vital for refining healthcare delivery and attaining positive patient outcomes.

Furthermore, the findings might meaningfully influence the improvement of A&E health workers' welfare. Challenges related to health care worker’s mental and physical well-being can be dealt with by establishing the origins of stress and its consequences, and by developing targeted support systems and resources. This as a result will improve job satisfaction, retention rates, sustainable and resilient healthcare workforce as well as reduces the risk of burnout.

Moreover, the findings from the study may also inform institutions in the health sector on effectively allocating resources within the A&E department. Institutions can advance operational efficacy and patient care standards by comprehending the issues that bring about stress, and subsequently boosting labor levels, equipment, and support services.

Still, the study's results have more implications such as determining policy development at both institutional and governmental levels. Recommendations that are research-derived and evidence-based can impact the formulation of policies and protocols aimed at reducing occupational stress in the healthcare workforce, especially in the ED departments. By integrating these findings into policy decisions, stakeholders may create a helpful and advantageous work environment, putting into consideration healthcare staff welfare

Also, this study has practical implications and contributes to the advancement of scientific knowledge on occupational stress in healthcare environments. The study offers valuable data and insights to the existing literature, enabling future studies and initiatives in emergency medical services and other healthcare settings that aim to deal with similar challenges. Moreover, the significance of the study lays in its ability to bring about advantageous changes in healthcare delivery, employee welfare, and organizational practices.

1.5 Theoretical Framework

Job demand-control (-support) model [JDCS]

This research was guided by the Job demand-control (-support) model [JDCS] pioneered by Karasek (1979). The JDCS proposes that the association between the demands of a job and job control is crucial in determining the well-being of an employee. The model points out that the relationship between ther two constructs: job demands, which comprises of workload and time constraints, and job control, entailing of skill discretion—opportunities for employees to apply their skills—and decision authority, employees' autonomy in task-related decision-making (Karasek, 1979). As a result of the interaction among these ideas, there can be noteworthy stress and disadvantage to employees' well-being. The interplay between demands, support, and control within the workplace is what the model tries to shed light on. An employee with high demand joined with little control and insufficient social support is more susceptible to stress.

The JDCL model proposes three assumptions based on the interrelatedness of these constructs: The strain hypothesis suggests that high job expectations joined with scarce job control increase the probability of psychological stress and physical illnesses. The iso-strain hypothesis speculates that an increased probability of psychophysiological illnesses is associated to high job demands, limited job control, and scarce social support. The buffer hypothesis suggests that control and social support can lessen the harmful effects of needless strain on well-being (Luchman & González-Morales, 2013).

The JDCS model suggests that employees faced with high psychological burdens yet less job control, characterized by limited decision-making authority and limited skill will, are more vulnerable to harmful health effects. Karasek (1979) emphasizes that a mixture of high demands and limited control in the workplace leads to a high-strain environment that undesirably influences individual health (Theorell & Karasek, 1996). It is believed that having a high degree of control might lessen the hostile consequences of high demands on health outcomes.

The JDCS model highlights the significance of everyday occupational stresses, which may be connected to stimuli and incidences that individuals appraise in their work environment. Karasek and Theorell (1990) emphasize that an association exists between job demands and job control, influencing

psychological factors. Individuals experience work-related stress when they perceive elevated job demands and diminished control in their employment. Such factors may be perceived as stressful when individuals regard them as jeopardizing their health and well-being. The cognitive assessment theory proposed by Lazarus and Folkman (1984) corresponds with this idea. This model is suitable for elucidating the particular variables associated with occupational stress among healthcare professionals in the Accident and Emergency Department.

Chapter Two: Literature Review

2.1 Introduction

This chapter summarized the information from other scholars who had carried out research in similar fields of study. The specific areas covered included; the empirical studies that relate to the occupation stress among health worker, and in the emergency department. Further, the chapter looked at literature on factors causing occupational stress, health worker's perception towards work intensity and the coping mechanisms used. Lastly, the summary of the whole chapter.

2.2 Occupational Stress

Occupational stress, commonly referred to as work-related stress, has been a long-lasting theme of alarm. The occurrence of this problem has evidently increased since the global economic recession, touching a varied array of countries, professions, employees, families, and societies (Mohajan, 2012). Occupational stress signifies the hostile psychological and physical responses that ascend when employment demands surpass a person's capacity, accessible resources, or necessities (Sauter et al., 2009). Occupational stress is largely triggered by psychosocial hazards at work, including things such as workload, job content, work schedule, workplace environment, task control, career development, work-life balance, organizational culture, and associations at work (European Risk Observatory, 2010). Cartwright and Cooper (1997) described six primary causes of work-related stress: organizational factors, , intrinsic job characteristics, an individual's role within the organization, the interplay between work and personal life, career prospects and workplace interpersonal connections. Occupational stress can affect both employee well-being and organizational performance (Beheshtifar & Nazarian, 2013). Individuals who cannot efficiently manage stress may experience numerous hostile effects on their psychological, behavioral and physical health. Physiologically, people may display symptoms like headaches, cervical or shoulder pain, and tachycardia. They may encounter depression, anxiety, insomnia, and other linked psychological illnesses. Stress might lead to exhaustion, reduced

work performance, and several adverse effects, eventually influencing general output, the organization's repute, and the quality of the final output or service (Hespanhol, 2004). Studies show that work-related stress harmfully affects physical health, leading to sharp susceptibility to cardiovascular diseases (Kang et al., 2005), respiratory ailments, musculoskeletal disorders, respiratory ailments, psychological disorders, sleep disturbances, irritability, depression, concentration difficulties and anxiety (O'Connor et al., 2000).

2.3 Occupational Stress and the accident and Emergency Department

Emergency health practitioners are tasked with speedily managing quick care, particularly for conditions that are life-threatening, owing to the inherent characteristics of the Emergency Department (ED), where patients present unpredictably with varied illnesses and injuries. Subsequently, they function in a strenuous setting and often face crisis situations, including unexpected patient deaths, trauma, violence and overcrowding (Freeman et al., 2014). Studies reveal that emergency healthcare workers have high stress and burnout levels compared to healthcare professionals in other sectors, including physicians (Adriaenssens et al., 2015). The primary stressors for emergency department healthcare workers are handling high volumes of casualties, caring for sick patients in critical conditions, coping with substantial workloads, addressing violence and facing distressing scenarios involving children (Lu et al., 2015).

The work environment and occupational stress are interrelated, substantially influencing the stress levels of healthcare personnel. Subnormal working conditions, comprising low payment, poor medical equipment, and inadequate likelihoods for relaxation, adversely affect stress levels. This therefore impacts the quality of healthcare and patient safety (Lu et al., 2015). On the other hand, when healthcare worker, for instance doctors or nurses, esteem their work settings as helpful, it leads to a number of benefits for both patients and caregivers. These returns include improved patient care quality, sufficient staffing, better communication, collaboration, shared respect, teamwork, and high job satisfaction (Ulrich et al., 2014).

Workplace guidelines frequently dictate stretched work hours as part of adverse working conditions, necessitating ED workers to follow. Extended work shifts can significantly affect a person's

performance, often resulting in unforeseen negative costs for patient care (Al-Hrinat et al., 2024). Institutional limitations may necessitate healthcare professionals, predominantly nurses, to work extended hours. Extended work hours unfavorably influence healthcare professionals, leading to high stress, fading health, and emotional exhaustion, while also affecting patients via errors in identification and communication (Birhanu et al., 2018).

Moreover, healthcare professionals in A&E departments often mention raised workloads as a substantial reason of stress (Trousselard et al., 2016). This may be analyzed with the Job Demand Control-Support (JDCS) model developed by Karasek and Theorell (1990). Meeting employment tasks meaningfully contributes to stress and hinders the capacity to punctually deliver the needed treatment. These prospects encompass challenging physical tasks and unanticipated activities, including responding to phone calls, addressing patient strains, and promptly managing medical treatments (Verrall et al., 2015).

2.4 Factors causing occupational stress among Health workers in the accident and emergency unit.

The job satisfaction and well-being of A&E department health workers can be influenced by a number of variables, resulting in occupational stress. According to research by Umoe et al. (2020) carried out in a federal hospital in south-south Nigeria, the unwarranted workload in the A&E unit was a chief cause of stress for nurses. A considerable number of nurses strongly agreed that the task was too difficult (Umoe et al., 2020). The constant flood of patients, crises, and critical conditions can lead to both mental and physical fatigue, hence worsening the level of stress among healthcare workers (Rink et al., 2023). There was a lack of clearness concerning tasks and responsibilities among nurses in the department, with a good number admitting vagueness in this regard (Umoe et al., 2020). Unclear job expectations and responsibilities can lead to uncertainty and anxiety among A&E department healthcare professionals, affecting their job satisfaction and performance. In addition, a study by Rink et al. (2023) revealed that a high workload in the A&E department is a main cause of stress for health

care workers. This includes having to deal with a high number of patients, critical cases, and the unexpected nature of emergency conditions.

According to research by Johnston et al. (2026), the A&E department workers experienced high stress as a result of shortage of staff, with a majority of nurses indicating strong agreement that insufficient staffing was a key source of stress. Inadequate staffing levels can result in an increase in the work demands, extended hours, and challenges in availing high-quality patient care, hence adding to stress among healthcare workforce (Rink et al., 2023). According to Herraiz-Recuenco et al. (2022), health professionals have indicated that insufficient compensation for their labor and economic challenges in the country are causes of stress. Financial constraints, insufficient earnings, and economic instability can worsen the stress endured by healthcare professionals, negatively influencing their motivation and job contentment. The determined need to provide prompt and effective healthcare might lead to increased levels of stress among healthcare professionals in the A&E department (García-Tudela et al., 2022). Moreover, working in a rapid and highly stressful setting may necessitate high psychological demands which may have a negative impact on the welfare of staff members since they frequently encounter trauma, life-threatening circumstances, and disturbed patients and families (Rink et al., 2023).

Furthermore, when resources are insufficient and distributed unequally, including scarce personnel, equipment, and support services, within the A&E department can make worse the stress experienced by healthcare professionals. This scarcity will have an effect on the quality of care made available and add to the challenges run into by staff members (Herraiz-Recuenco et al., 2022). Additionally, Shift work and fatigue adds to stress among A&E healthcare workforce. When working hours are uneven, night shifts, and prolonged hours, the sleep pattern of these health workers is affected, leading to increased exhaustion and burnout (Al-Hrinat et al., 2024). According to research by Umoe et al. (2020), healthcare professionals in the A&E unit may experience an increase in stress due to differences amongst team members and a sense of not having enough control over work measures and decision-making. Moreover, coincidences with upsetting incidences, such as severe injuries or

circumstances involving a high number of victims, can have a lasting significance on the mental state and general well-being of workers (Uddin et al., 2023). Umoe et al. (2020) conducted a study that revealed that stress among nurses in the A&E unit is an outcome how they associate with the administration and coworkers. Izdebski et al. (2023) revealed that health workers may experience an increase in stress due to communication challenges, differences with coworkers, and challenges in dealing with administrative measures. Healthcare professionals often face stress and burnout because of the stresses of attending to critical patients, handling crises, and exposing themselves to health dangers.

2.6 Health Worker's coping mechanism with stress in the accident and emergency department

In the Accident and Emergency (A&E) department, a number of different factors influence the well-being and job satisfaction of health workers, leading to occupational stress. A study conducted in a federal hospital in South-South Nigeria revealed that high workload in the A&E unit as a significant cause of stress for nurses. A significant part of nurses showed a strong agreement that the work was extremely difficult (Umoe et al., 2020). The persistent large numbers of patients, crises, and grave circumstances can lead to both mental and physical fatigue, hence rising stress levels among healthcare workers (Rink et al., 2023). Nurses in the department revealed lack of clarity regarding their tasks and responsibilities, with a considerable percentage acknowledging that this vagueness contributed to stress (Umoe et al., 2020). In addition, unclear work expectations and responsibilities can result in anxiety and confusion among healthcare workers in the A&E department, harmfully distressing their performance and job satisfaction. Additionally, according to research by Rink et al. (2023), the study indicated that unnecessary workload in the A&E department pointedly adds to worker stress. This involves handling a considerable capacity of patients, serious cases, and the random nature of emergency situations.

The A&E unit is confronted with increased stress because of staff shortages, with most nurses strongly approving that inadequate staffing was a key source of stress (Johnston et al., 2016). Scarce staffing levels can lead to an upsurge in job demands, prolonged working hours, and difficulties in availing

high-quality care for patients, hence aggravating stress among healthcare personnel (Rink et al., 2023). Herraiz-Recuenco et al. (2022) stresses that health professionals perceive inadequate payment and economic snags in the country as causes of stress. Financial restrictions, inadequate income, and economic uncertainty can deepen the stress experienced by healthcare workers, affecting their enthusiasm and job satisfaction. The repeated need for appropriate and effective healthcare may raise stress levels among workers in the A&E department (García-Tudela et al., 2022). Furthermore, the psychological demands of functioning in a fast-paced and deeply stressful setting may unfavorably affect the well-being of workers, as they frequently oppose trauma, life-threatening situations, and upset patients and families (Rink et al., 2023).

Moreover, the inadequacy of resources, such as shortages in the number of health workers, unavailable or scarce equipment, and poor support services, inside the A&E department can worsen the stress met by healthcare workers. These inadequacies may influence the quality of care provided and aggravate the challenges met by staff members (Herraiz-Recuenco et al., 2022). The stress experienced by the A&E health care workers is considerably worsened by Shift work and fatigue. Unequal working hours, night-time shifts, and prolonged hours interrupt sleep patterns, leading to exhaustion and burnout (Al-Hrinat et al., 2024). A study by Umoe et al. (2020) highlights that conflicts among team members and a supposed lack of control over work procedures and decision-making can cause increased levels of stress among healthcare staff in the A&E. Moreover, upsetting events, such as severe injuries or events resulting in frequent fatalities that health workers experience, can influence the psychological well-being and over-all health of multitudes (Uddin et al., 2023). Umoe et al. (2020) did a study that proved stress among nurses in the A&E department due to their contacts with administration and colleagues. Further, Izdebski et al. (2023) revealed that healthcare professionals may meet amplified stress resulting from communication problems, interpersonal conflicts, and difficulties in handling administrative processes. Healthcare workers in the A&D department frequently meet stress and burnout due to the demands of caring for vital patients, managing crises, and exposing themselves to health risks.

2.8 Summary of Literature

The present literature on occupational stress among healthcare workers, particularly in hospital environments, has revealed a number of significant factors that result into stress. These factors comprise of overload of work, interpersonal conflicts, insufficient resources, extended working hours and a lack of or insufficient support from superiors. Studies have revealed that these factors have significant influence on the work satisfaction and general well-being of healthcare professionals, hence affecting the quality of patient care provided. However, there is a notable lack of study regarding the specific variables that lead to occupational stress among physicians working in the Accident and Emergency (A&E) Department at two hospitals in Kampala.

While we know that heavy workloads affect healthcare workers' well-being, there aren't many studies on how emergency room staff feel about this stress. It's important to understand how health workers feel about their demanding jobs to identify sources of stress and create effective ways to lessen that stress. There is not much research on how health workers in the A&E Department manage stress, even though these methods are recognized as important for handling work-related stress. Looking into how healthcare workers cope in this setting can provide useful information about their effectiveness and help create methods to boost their resilience and well-being.

This study aims to fulfill three different objectives to overcome the shortages in the current literature. Initially, assess the occurrence of job-related stress among healthcare professionals in the accident and emergency (A&E) department at two hospitals in Kampala. Moreover, the study aims to examine the determinants of occupational stress among healthcare workers in the A&E department. It aims to better our understanding of this issue and offer significant insights for formulating targeted initiatives to promote the well-being of these professionals and elevate the quality of patient care.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter covered the research approach, research design, study population, sample size, sampling procedures, data collection methods and data analysis.

3.2 Design

The research employed a cross-sectional methodology to investigate the factors that influence occupational stress among healthcare professionals in the Accident and Emergency Department. This methodology was appropriate as it allowed for the acquisition of data at a specific moment, offering insights into the relationship between various aspects related to occupational stress without necessitating prolonged observation (Olsen & St George, 2004). Furthermore, the research employed a quantitative approach to evaluate the prevalence and determinants linked to occupational stress, as well as the coping strategies utilized by A&E healthcare personnel. This facilitated the research in attaining a comprehensive understanding of the magnitude of occupational stress within this dynamic healthcare environment. Furthermore, the utilization of this quantitative approach facilitated statistical analysis (Watson, 2015), thereby enabling the identification of significant factors contributing to occupational stress and directing focused interventions to enhance the well-being of healthcare professionals in the A&E department.

3.2 Area under Study

The study was conducted at Mulago and Kirudu National Referral Hospitals, precisely in the A&D departments. This study focused on the two Hospitals because of the high patient bulks and critical role they play in the health care system of Uganda. Additionally, there are unique stressors such as congestion, extended hours, and inadequate resources that healthcare workers in urban settings face, which make them vulnerable to poor well-being and affect the quality of patient care. Understanding

the causes of occupational stress will guide focused interventions in these hospitals to better healthcare delivery and health worker pliability.

MNRH, established in 1913 in Kampala, functions as a complete healthcare facility for the metropolitan area of Kampala, as decided on by the Ministry of Health (MoH) in 2024. MNRH offers a variety of services, including surgery, pediatrics, and internal medicine, along with their corresponding subspecialties. The services for diagnostics accessible include pathology, radiology nuclear medicine and clinical laboratory (Ministry of Health [MoH], 2024). Roughly 48,000 people seek out medical care at the A&D department yearly for trauma-related injuries. The regional centers across the country refer a substantial number of these patients (Luggya et al., 2022).

Alternatively, Kiruddu Referral Hospital located in Kampala, was under the direct management of the Ministry of Health. It functions as an educational hospital for medical students registered in the College of Health Sciences at Makerere University and other Universities. The hospital had a total of 200 beds accessible for inpatient treatment and 14 outpatient clinics. These clinics catered for a projected everyday patient population of about 3300–500 people. The hospital claims the major infectious illness ward in the country, along with an special unit devoted to treating patients with burns.

3.3 Population under study

The study investigated the cohort of healthcare staff working in the A&E department at two hospitals in Kampala to establish the factors leading to occupational stress. This included administrative professionals, medical doctors, nurses, technicians, and other persons intricate in providing healthcare services in the A&E department. The choice of these staff was vital because of the exceptional and challenging nature of their work environment. Healthcare staff in the A&E department meet challenging environments, volatile patient bulks, and emotionally demanding circumstances, which all result in sharp work-related stress (McCormick et al., 2023). Understanding the constructs that lead to occupational stress among A&E healthcare staff is crucial, given the critical role they play in delivering emergency medical care and the possible effects of stress on patient outcomes. The study

examined the explicit stressors, coping mechanisms, and associated variables private to the A&D department. The objective was to gain a clear understanding that may inform interventions intended at lessening stress and refining the well-being of healthcare staffs in this crucial medical setting. The population was composed of individuals with varied job functions and varying levels of superiority within the A&E Department. The study confined itself to the A&E department of two hospitals in Kampala, thus may not correctly replicate other departments or healthcare environments inside or external the institutions. The study results are relevant to healthcare staffs working in similar emergency department environments, especially those facing similar job demands and occupational stresses.

3.4 Selection Criteria

3.4.1 Inclusion Criteria

- Staff employed in the Accident and Emergency Department at Mullago and Kirundu National Referral hospitals in Kampala.
- Both temporary and permanent staff members.
- Healthcare staff willing to voluntarily take part in the study.

3.4.2 Exclusion Criteria

- Staff on long leave or momentary suspension during the study period.
- Staff diagnosed with a mental health illness unconnected to work stress that could influence their responses.
- Staff who are incapacitated because of an illness

These criteria intended to ensure the study involved pertinent respondents who are involved in providing healthcare services within the A&E department without those who do not contribute to or are impacted by occupational stress in this specific setting.

3.5 Sampling Procedure

A census sampling method was employed to recruit participants from the health workers in the A&D department at Mulago and Kirundu hospitals in Kampala. This method was utilized because the

participants were few to allow random selection for quantitative analysis for the researcher to access a readily available pool of potential participants, whose total number were seventy-three.

3.7 Tool for data collection

3.7.1 Type of Tool

The study utilized a designed instrument that was a self-administered questionnaire. The Brief Job Stress Questionnaire [BJSQ] (Tsutsumi et al., 2017) comprised of 57 items intended to assess occupational stressors and related factors: 17 items applied to psychological job demands and job control, 29 items talked to psychological and physical stress reactions, and 11 items examined buffering factors, including workplace social support (Tsutsumi et al., 2017). We included six itms to assess coping strategies among health professionals in the A&D department (Umoe et al., 2020). The questionnaire had multiple-choice answers, with participants directed to mark the number that most truthfully represents their position for each statement. The different sections of the questionnaire addressed occupational stress, health, social support, satisfaction, and coping mechanisms. Each section included a set of tasks designed to evaluate different facets of the constructions under investigation.

3.7.2 Scoring on the Tool

A Likert scale was utilized in the study, allowing participants to select their degree of agreement or disagreement with each response by picking a number from 1 to 4. The tool's scoring involved assigning numerical values to the participants' responses. The scoring varied according on the specific guidelines and sections of the tool. In the initial section of assessing workplace stress, participants were instructed to assess their level of agreement or disagreement with statements related to their workload, work environment, job satisfaction, and interactions with colleagues and supervisors. A score of 1 typically meant "strongly disagree" or "never," while a score of 4 represented "strongly agree" or "always." In the following sections assessing health condition, social support, satisfaction, and coping techniques, the study employed the Likert scale style to evaluate their experiences and actions. High scores on the scale indicated a greater level of agreement, enjoyment, or occurrence of

specific actions or experiences. We aggregated or averaged the scores for each item after collecting all responses to establish the total scores for each construct or dimension assessed by the tool.

3.7.3 Measurement of Variables

Following the analysis of responses from the Brief Job Stress Questionnaire (BJSQ), people were classified into three stress levels: "Highly stressed," "Moderately stressed," and "Low stressed." The categories were derived using standardized score thresholds across many dimensions of the questionnaire, encompassing work-related stress, health-related stress, social support, satisfaction, and coping strategies. Each category offered insights into many facets of the participant's occupational stress experience.

1. work-related Stress (Questions 1-17)

Job-related stress centered on the demands of the position, workload, and general work atmosphere. Individuals were classified according on their replies to 17 inquiries. A low stress score ranged from 51 to 68, signifying that the individual encountered minimal work-related stress and maintained a tolerable workload. Moderate stress was indicated by scores ranging from 34 to 50, suggesting that the individual was coping with their task but experiencing intermittent stress. Elevated stress levels were indicated by scores ranging from 17 to 33, suggesting that the individual likely had considerable pressure and difficulties in fulfilling job requirements.

2. Health-Related Stress (Questions 18-46)

Health-related stress encompassed both physical and psychological symptoms experienced by participants. A score between 87 to 138 (low stress), showed that the healthcare worker experienced slight to no health issues associated with their occupation. Scores from 44 to 86 (Moderate stress), implied the existence of health problems associated with occupational stress. Scores from 18 to 43 (Elevated stress levels), showed health issues, suggesting continuous occupational stress impacting the individual's well-being.

3. Social Support (Questions 47-55)

This section investigated the individual's capacity to solicit and obtain assistance from supervisors, colleagues, and family members. Scores from 3 to 11 (Elevated stress), suggested that the individual

was deficient in social support, hence intensifying the adverse impacts of occupational stress. Scores from 12 to 23 (Moderate stress), showed the presence of social support, however it is insufficient to completely mitigate stress. A score of 24-36 (low stress) signifies robust social support from these sources, which alleviates job-related stress.

4. Satisfaction (Questions 56-57)

Satisfaction served as crucial mitigators of occupational stress. Scores ranging from 6 to 8 (Low satisfaction), showed discontent in one or both domains, hence markedly elevating stress levels. Scores of 4-5 (Moderate contentment), suggested some discontent in either professional or familial aspects, which contributed to moderate stress levels. A score of 2-3 (High contentment) showed the individual is mainly pleased with their employment and family life, possibly resulting in reduced overall stress levels.

5. Managing Stress (Questions 58-62)

This section investigated health worker's ability in handling occupational stress via several coping strategies, including reliance on friends, colleagues, faith, or personal time. High dependence on coping methods, with scores ranging from 5 to 7, suggested that the individual was proficiently managing stress using these measures. A moderate dependence, indicated by a score of 8-12, demonstrated that the individual utilized coping methods however need further assistance. A low reliance score, ranging from 13 to 20, signifies challenges in stress management, resulting in elevated stress levels and a necessity for external assistance.

3.8 Validity and Reliability of the Data Collection Tool

3.8.1 Validity of the Data Collection Tool:

In view of that the Brief Job Stress Questionnaire (BJSQ) was a pre-validated and previously utilized tool, the researcher performed a pre-test to ascertain its suitability for the specific context or population being studied. Before applying the BJSQ, the researcher conducted a pilot test to assess its clarity, comprehensibility, and relevance. Feedback from participants during the pre-testing phase facilitated the identification of ambiguous or interpretatively flexible items in the questionnaire. The items were subsequently enhanced to elevate the overall quality of the questionnaire.

3.8.2 Reliability of the Data Collection Tool

The BJSQ is widely recognized as a reliable instrument for assessing employment stress in occupational health studies. The subscales have consistently demonstrated strong internal consistency in research, with Cronbach's alpha values ranging from 0.70 to 0.90. This indicates considerable dependability in the evaluation of variables such as job demands, job control, and workplace support (Mori et al., 2023). The BJSQ's temporal consistency in constant work situations is demonstrated by its strong test-retest reliability, with correlation values typically exceeding 0.70 over a 2–4 week period (Hidaka et al., 2022). The questionnaire, which was initially developed in Japan, has been validated across a wide range of cultural contexts with comparable reliability, making it appropriate for a diverse range of groups. The BJSQ has been shown to be effective in identifying occupational stresses that are specific to high-demand contexts, particularly among nurses and emergency department personnel (Keisuke et al., 2021). These findings endorse its utilization in your research on the factors influencing occupational stress among healthcare professionals in Mulago and Kirundu National Referral Hospitals.

3.9 Study variables

3.9.1 Dependent Variables

The dependent variable of the study was Occupational stress.

3.9.2 Independent variables

The independent variables in the study included age, education level, health worker category, time spent working in A&E department, marital status and seniority.

3.10 Data analysis

The dataset was cleaned and prepared during the initial phase of data analysis. This involved the identification and correction of errors, omissions, or inconsistencies in the data. Albers (2017) meticulously analyzed and addressed outliers, either by removing them or by making the necessary adjustments. The researcher, therefore, ensured that the data was meticulously coded and organized to

facilitate precise analysis. Subsequently, descriptive statistics were calculated to concisely identify the dataset's primary attributes. The central tendency and variability of the variables under investigation were significantly illuminated by metrics such as mean, median, standard deviation, and range. In order to investigate the distribution of categorical variables, frequency distributions were developed.

Data was analyzed at three levels, bivariate, univariate and multivariate, thus enabling to evaluate the factors that contribute to occupational stress. At first, chi-square analysis was used to investigate possible connections between different demographic and occupational characteristics and levels of occupational stress at the bivariate level. This research aimed to discover significant correlations between certain parameters and stress levels, so laying the foundation for subsequent inquiry.

Afterwards, a binary logistic regression analysis was performed to further investigate the components linked to occupational stress. Variables that exhibited significant connections in the chi-square analysis were incorporated into the regression model. Variables that have a p-value of 0.05 or below were deemed statistically significant, showing a correlation with occupational stress. In addition, the researcher calculated the adjusted odds ratio with a 95% confidence interval to measure the strength of these associations. This provided valuable information about the size and direction of the relationships between the identified factors and levels of occupational stress among health workers in the Accident and Emergency Department at two hospitals in Kampala.

3.11 Ethical considerations

In order to safeguard the dignity, rights, and welfare of all participants, the researcher carefully assessed ethical standards. Initially, the researcher requested ethical approval from the Research Ethics Committee (REC) of Uganda Christian University (UCU) to ensure that the study complied with ethical standards and to safeguard the welfare of the subjects. Comprehensive information regarding the study protocol, including recruitment procedures, data collection methods, and precautions to ensure participant safety and confidentiality, was furnished. Next, the researcher obtained permission from the Hospital Administration and other relevant authorities at Mulago and Kirudu National Referral Hospitals to conduct the study on their premises. This ensured that the study complies with the hospital's regulations and protocols and does not interfere with their clinical operations.

All subjects provided informed consent, emphasizing their voluntary involvement. They received comprehensive information concerning the objective, methodologies, possible risks, and benefits of the study. Participants were guaranteed the ability to withdraw from the research at any moment (Falagas et al., 2009). Confidentiality was rigorously maintained during the process by anonymizing personal information and responses, utilizing coding systems or pseudonyms, and securely storing all data to prevent unauthorized access (Bourke & Wessely, 2008). Measures were implemented to mitigate any adverse effects or discomfort encountered by participants, including the use of non-invasive survey questions, provision of support services, and execution of debriefing sessions post-data collection.

Additionally, the highest priority was given to the preservation of autonomy, which entailed enabling participants to freely and independently ascertain their willingness to participate without any undue influence or compulsion (Shukla & Pandey, 2023). The study emphasized beneficence by utilizing its findings to inform policies or actions that are intended to improve the well-being of health workers in A&E departments and reduce occupational stress. The study maintained honesty, integrity, and transparency throughout the research process, in accordance with the guidelines of Shukla and Pandey (2023). This necessitated the precise documentation of the research outcomes and the effective communication of the study's objectives, methods, and implications to all stakeholders.

3.12 Limitations

A noteworthy limitation was the limited sample size, which may confine the generalizability of the findings to a wider population of health professionals in analogous contexts. The study used a census sample strategy to include all qualified participants from the targeted departments, hence improving the data's representativeness within the study context.

Chapter Four: Results

4.0 Introduction

This section reveals the study's findings on determinants of occupational stress among health workers in the accident and emergency department in two hospitals in Kampala.

4.1 Demographic Characteristics of Respondents

Table 1: Demographic Factors of Respondents (n=64)

Variable	*Category*	*Frequency (n=64)*	*Percentage (%)*
Age	20-30 Years	33	51.6
	31-40 Years	26	40.6
	41-50 Years	4	6.3
	Above 50 years	1	1.6
Sex	Male	25	39.1
	Female	39	60.9
Marital Status	Married	31	48.4
	Separated/Divorced	0	0.0
	Single	32	50.0
	Widowed	1	1.6
Religion	Catholic	29	45.3
	Anglican	21	32.8
	Muslim	6	9.4
	Pentecostal	8	12.5
Education level	Certificate	3	4.7
	Diploma	23	35.9
	Bachelor’s degree	26	40.6
	Masters and above	12	18.8

Job title	Doctor	29	45.3
	Nurse	33	51.6
	Clinician	2	3.1
Years of experience in Health care	1-5 years	29	45.3
	6-10 years	20	31.3
	11-15 years	7	10.9
	16-20 years	8	12.5
Years of experience in the Accident and emergency department	1-5 years	48	75.0
	6-10 years	12	18.8
	11-15 years	1	1.6
	16-20 years	2	3.1
	21-25 years	1	1.6
Length of current employment	1-5 years	42	65.6
	6-10 years	17	26.6
	16-20 years	5	7.8
Number of hours worked per week (Shift is 8 hours)	48 and below	56	87.5
	49-60 hours	4	6.3
	Above 60 hours	4	6.3
Shift Schedule	Day	13	20.3
	Night	4	6.25
	Rotating	47	73.4
Frequency of church attendance per week	One time	49	76.6
	2-3 times	9	14.1
	More than 3 times	4	6.3
	None	2	3.1
	Yes	19	29.7

Involved in any community group	No	45	70.3
Household car access	None	34	53.1
	One car	23	35.9
	Two or more cars	7	10.9
Involved In extracurricular activities	Yes	31	48.4
	No	33	51.6

Table I shows demographic factors of the respondents. The participants are predominantly aged between 20 and 30 years (51.6%), with the majority being female (60.9%). Marital status shows a fairly even split between married (48.4%) and single (50.0%) individuals, with a small percentage (1.6%) being widowed. In terms of religion, Catholics represent the largest group (45.3%), followed by Anglicans (32.8%). Educational attainment is relatively high, with 40.6% holding a bachelor's degree, and 18.8% having a master's or higher. The majority work as nurses (51.6%), while 45.3% are doctors. Most have 1-5 years of healthcare experience (45.3%), and 75.0% have spent 1-5 years in the Accident and Emergency department. The majority (65.6%) have been in their current job for 1-5 years. Most work 48 or fewer hours per week (87.5%) and rotate between day and night shifts (73.4%). The majority attend church once a week (76.6%) and are not involved in community groups (70.3%). Additionally, 53.1% do not have access to a car, and 51.6% are not involved in extracurricular activities.

4.2 Prevalence of perceived job-related stress among healthcare workers

Figure I: Prevalence of perceived job-related stress among healthcare workers in the accident and emergency (A&E) department at two hospitals in Kampala. (n=64)

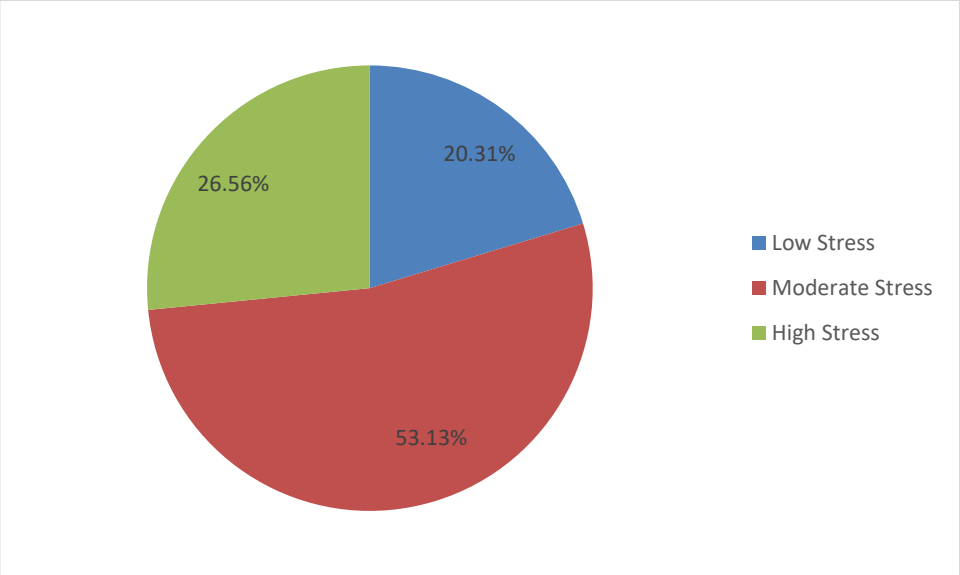

Figure I shows the prevalence of perceived job-related stress among healthcare workers in the Accident and Emergency (A&E) departments at two hospitals in Kampala. Of the 64 respondents, the majority (53.13%) reported experiencing moderate stress. A smaller group, 26.56%, reported high levels of stress, while 20.31% experienced low stress.

Table III: Scoring per construct of occupational Stress

Variable	*Category*	*Frequency (n=64)*	*Percentage (%)*
Work related stress	Low stress	1	1.6
	Moderate stress	43	67.2
	High stress	20	31.3
Health related stress	Low stress	18	28.1
	Moderate stress	44	68.8
	High stress	2	3.1

Social support	Strong social support	15	23.4
	Moderate social support	45	70.3
	Low social support	4	6.3
Satisfaction	High satisfaction	27	42.2
	Moderate satisfaction	19	29.7
	Low satisfaction	18	28.1

Table III above presents various factors related to stress, social support, satisfaction, and coping mechanisms among healthcare workers in the Accident and Emergency departments. In terms of work-related stress, 31.3% report high stress, and only 1.6% feel low stress. For health-related stress, 68.8% experience moderate stress, 28.1% report low stress, and 3.1% feel high stress. Regarding social support, most respondents (70.3%) have moderate social support, with 23.4% having strong support and 6.3% reporting low support. In terms of job satisfaction, 42.2% express high satisfaction, while 29.7% report moderate satisfaction and 28.1% experience low satisfaction.

4.3 Factors associated with occupational stress among Health Workers

Table IV: Factors associated with occupational stress among health workers in the accident and emergency unit at two hospitals in Kampala (Confidence level 0.05).

Variable	**Category**	**OCCUPATIONAL STRESS**			**Pearson chi square value**	**P-Value**
		Low	Moderate	High		
Age	20-30 Years	8(24.2)	19(57.6)	6(18.2)	**9.514**	**0.047**
	31-40 Years	5(19.2)	11(42.3)	10(38.5)		
	41-50 Years	0(0.0)	4(100.0)	0(0.0)		
	Above 50 years	0(0.0)	0(0.0)	1(100.0)		

Sex	Male	7(28.0)	12(48.0)	6(24.0)	1.498	0.473
	Female	6(15.4)	22(56.4)	11(28.2)		
Marital Status	Married	8(25.8)	13(41.9)	10(32.3)	**6.357**	**0.017**
	Single	5(15.6)	21(65.6)	6(18.8)		
	Widowed	0(0.0)	0(0.0)	1(100.0)		
Religion	Catholic	3(10.3)	16(55.2)	10(34.5)	8.066	0.233
	Anglican	5(23.8)	13(61.9)	3(14.3)		
	Muslim	3(50.0)	1(16.7)	2(33.3)		
	Pentecostal	2(25.0)	4(50.0)	2(25.9)		
Education level	Certificate	2(66.7)	1(33.3)	0(0.0)	**7.336**	**0.029**
	Diploma	5(21.7)	13(56.5)	5(21.7)		
	Bachelor's degree	4(15.4)	12(46.2)	10(38.5)		
	Masters and above	2(16.7)	8(66.7)	2(16.7)		
Job title	Doctor	7(24.1)	14(48.3)	8(27.6)	2.206	0.698
	Nurse	6(18.2)	18(54.6)	9(27.3)		
	Clinician	0(0.0)	2(100.0)	0(0.0)		
Years of experience in Health care	1-5 years	6(20.7)	17(58.6)	6(20.7)	3.586	0.732
	6-10 years	4(20.0)	8(40.0)	8(40.0)		
	11-15 years	2(28.6)	4(57.1)	1(14.3)		
	16-20 years	1(12.5)	5(62.5)	2(25.0)		
Years of experience in the Accident and emergency department	1-5 years	9(18.8)	27(56.3)	12(25.0)	**13.041**	**0.011**
	6-10 years	3(25.0)	7(58.3)	2(16.7)		
	11-15 years	1(100.0)	0(0.0)	0(0.0)		
	16-20 years	0(0.0)	2(100.0)	(0.0)		
	21-25 years	0(0.0)	1(100.0)	(0.0)		
	1-5 years	9(21.4)	24(57.1)	9(21.4)	3.002	0.558

Length of current employment	6-10 years	4(23.5)	7(41.2)	6(35.3)		
	16-20 years	0(0.0)	3(60.0)	2(40.0)		
Number of hours worked per week	48 and below	13(23.2)	28(50.0)	15(26.8)	**5.513**	**0.024**
	49-60 hours	0(0.0)	2(50.0)	2(50.0)		
	Above 60 hours	0(0.0)	4(100.0)	0(0.0)		
Shift Schedule	Day	0(0.0)	12(92.31)	1(7.7)	**11.834**	**0.019**
	Night	2(50.0)	1(25.0)	1(25.0)		
	Rotating	11(23.4)	21(44.7)	15(31.9)		
Frequency of church attendance	One time	12(24.5)	26(53.1)	11(22.5)	**10.493**	**0.011**
	2-3 times	0(0.0)	6(66.7)	3(33.3)		
	More than 3 times	1(25.0)	3(33.3)	0(00.0)		
	None	0(0.0)	2(100.0)	0(0.0)		
Involved in any community group	Yes	1(5.3)	10(52.6)	8(42.1)	5.472	0.065
	No	12(26.7)	24(53.3)	9(20.0)		
Household car access	None	7(20.6)	16(47.1)	11(32.4)	4.079	0.395
	One car	5(21.7)	12(52.2)	6(26.1)		
	Two or more cars	1(14.3)	6(85.7)	0(0.0)		
Involved In extracurricular activities	Yes	17(54.8)	12(38.7)	2(6.5)	**9.060**	**0.011**
	No	11(33.3)	17(51.5)	5(15.2)		

Table IV highlights significant associations between occupational stress and various demographic and job-related variables among healthcare workers in the A&E departments, with a focus on factors where the p-value is less than 0.05.

- **Age**: There is a significant association between age and occupational stress ($p = 0.047$), with younger workers (20-30 years) more likely to experience moderate stress (57.6%), while those aged 31-40 years report higher levels of stress (38.5%).
- **Marital Status**: Marital status is significantly associated with stress levels ($p = 0.017$). Married individuals show a relatively even distribution across stress categories, whereas single workers predominantly report moderate stress (65.6%).
- **Education Level**: A significant relationship exists between education and stress ($p = 0.029$). Bachelor's degree holders tend to report higher levels of stress (38.5%), while those with diplomas are more evenly spread across stress categories.
- **Years of Experience in A&E**: There is a significant association between years of experience in the A&E department and occupational stress ($p = 0.011$). Workers with 1-5 years of experience show a high level of moderate stress (56.3%) and high stress (25.0%), while those with more experience (16-20 years) report moderate stress levels (100%).
- **Number of Hours Worked per Week**: A significant relationship is found between weekly working hours and stress ($p = 0.024$). Workers who work 48 or fewer hours per week experience lower stress levels (23.2%), while those working more hours tend to report higher stress.
- **Shift Schedule**: Shift schedule significantly influences stress levels ($p = 0.019$). Workers on rotating shifts report higher levels of stress (31.9%), while day shift workers report the least stress.
- **Church Attendance**: Frequency of church attendance shows a significant relationship with stress ($p = 0.011$), where those attending once weekly experience moderate stress (53.1%) compared those attending more than three times (33.3%).
- **Involvement in Extracurricular Activities**: There is a significant association between involvement in extracurricular activities and stress ($p = 0.011$), with those participating in activities showing low stress levels (54.8%).

Table V: Factors that predict occupational Stress

Occupational Stress (ref=Low stress)	**Odds ratio**	**Std. Err**	**P-value**	**95% confidence interval**	
				Lower bound	Upper bound
Age (ref=31-40 Years)					
41-50 Years	0.156	0.203	0.153	.0121	2.000
Years of experience in the Accident and emergency department (ref=21-25 years)					
1-5 years	3.718	5.615	**0.005***	0.272	10.845
Number of hours worked per week (ref= Above 60 hours)					
48 and below	2.453	0.391	**0.036***	2.084	4.461
Involved In extracurricular activities (ref=No)					
Yes	0.477	0.415	**0.040***	.087	2.626
Frequency of church attendance (ref= More than 3 times)					
None	0.477	0.415	**0.040***	.087	2.626
_cons	38.498	28.002	0.000	9.254	160.165

Table V above shows the logistic regression results that predict occupational stress levels among healthcare workers. Below are the significant factors ($p < 0.05$).

Years of Experience in Accident and Emergency (1-5 years): With an OR of 3.718 (p = 0.005), healthcare workers with 1-5 years of experience in the A&E department are significantly more likely to experience stress compared to those with 21-25 years of experience.

Number of Hours Worked per Week (48 and below): Workers who worked 48 hours or fewer per week had an OR of 2.453 (p = 0.036), indicating they are more likely to report stress compared to those working over 60 hours.

Involvement in Extracurricular Activities (Yes): The odds of experiencing occupational stress are lower (OR = 0.477, p = 0.040) among workers involved in extracurricular activities, compared to those who are not.

Frequency of Church Attendance (None): Healthcare workers who do not attend church have significantly higher odds of experiencing stress (OR = 0.477, p = 0.040) compared to those who attend more than three times a week.

4.4 Coping strategies among health workers

Table VII: **Coping strategies of health workers (n=64).**

Coping Strategy	**Category**	**Frequency (n=64)**	Percentage (%)
Friends are the key source of support during stressful periods	Strongly disagree	21	32.8
	Disagree	23	35.9
	Agree	15	23.4
	Strongly agree	5	7.8
Work associates were the key sources of support during stressful periods	Strongly disagree	12	18.8
	Disagree	19	29.7
	Agree	20	31.3
	Strongly agree	13	20.3
Count of My faith	Strongly disagree	32	50.0

helps me to cope with stress	Disagree	13	20.31
	Agree	14	21.9
	Strongly agree	5	7.8
Interactions with the supervisor takes place on a daily basis and functions	Strongly disagree	14	21.9
	Disagree	19	29.7
	Agree	19	29.7
	Strongly agree	12	18.8
Count of Personal time alone helps me cope with stress	Strongly disagree	28	43.8
	Disagree	13	20.3
	Agree	18	28.1
	Strongly agree	5	7.8

Table VI provides insight into the coping strategies used by healthcare workers during stressful periods:

- **Friends as key support**: Most respondents either strongly disagree (32.8%) or disagree (35.9%) that friends are their key source of support, while 23.4% agree and only 7.8% strongly agree.
- **Work associates as key support**: A relatively balanced distribution shows that 31.3% agree and 20.3% strongly agree that work associates are a key support during stressful periods, while 29.7% disagree and 18.8% strongly disagree.
- **Faith as a coping mechanism**: Half of the respondents (50%) strongly disagree that their faith helps them cope with stress, and 20.31% disagree, while 21.9% agree and 7.8% strongly agree.
- **Interactions with supervisors**: Opinions are divided, with 29.7% agreeing and 18.8% strongly agreeing that they have daily interactions with their supervisors, while 21.9% strongly disagree and 29.7% disagree.

- **Personal time as a coping mechanism**: A large portion (43.8%) strongly disagree that personal time alone helps them cope with stress, with 20.3% disagreeing, but 28.1% agree and 7.8% strongly agree that it helps.

Figure II: Level of reliance on coping strategies among Health workers in A&E department

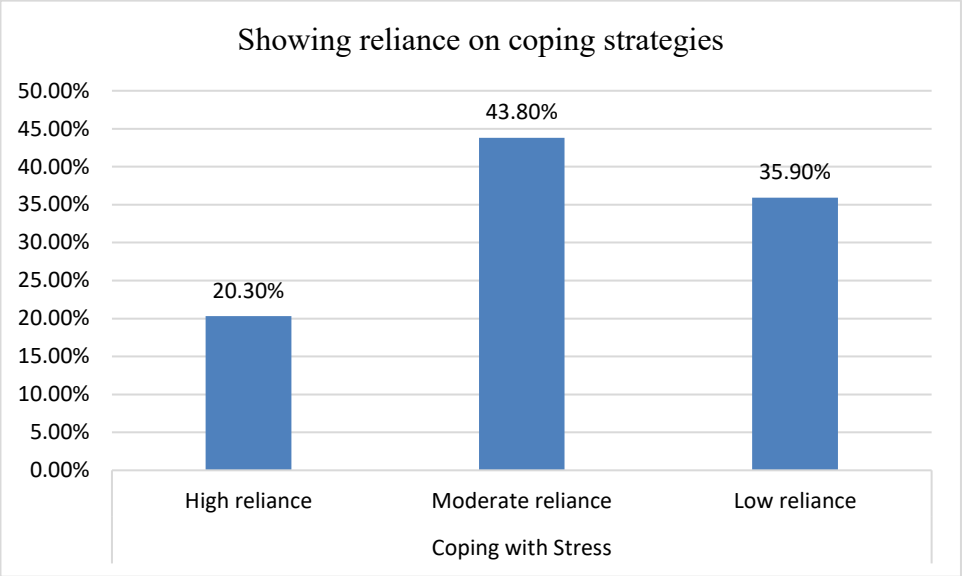

Figure II above shows that the largest proportion of participants (43.8%) have a moderate reliance on coping strategies, a smaller group (20.3%) demonstrates high reliance while a significant number (35.9%) report low reliance.

CHAPTER FIVE: DISCUSSION OF THE STUDY FINDINGS

5.0 Introduction

This chapter provides a summary, conclusions, and policy recommendations drawn from the study's findings aimed at reducing occupational stress among healthcare workers in the accident and emergency department.

5.1 Demographic Characteristics of Respondents

The study found that the primary age demographic employed in the A&E department is 20-30 years (51.6%), consistent with patterns seen in healthcare workforce research in low- and middle-income nations, where younger professionals are frequently more common (Okoroafor et al., 2022). A greater proportion of female respondents (60.9%) contradicts the findings of Brody et al. (2019), which examined gender equality in the Health Workforce in Uganda, and also diverges from a study conducted in Kenya that indicated a higher number of male health workers (Okoroafor et al., 2022). This disparity in gender may imply a wider social pattern in educational achievement and professional selections within the healthcare sector. Additionally, educational achievement has experienced a substantial increase, with 40.6% of individuals holding bachelor's degrees and 18.8% holding master's degrees. This is in contrast to the results of previous research, which frequently underscore the fact that healthcare personnel in comparable circumstances have lower educational levels (Zack, 2024). The distribution of job titles suggests that 51.6% of the positions are held by nurses and 45.3% by physicians, which highlights the critical roles that both professionals perform in emergency situations. This is in agreement with research findings that emphasize the importance of both professions in

patient care (Dahlawi et al., 2023).

5.2 Prevalence of perceived job-related stress among healthcare workers

The prevalence of perceived job-related stress among healthcare professionals in Accident and Emergency (A&E) departments is a substantial field of examination, particularly in view of the high-pressure nature of these settings. The study findings reveal that 26.56% of participants reported high stress levels, which is less than the 51.9% found by Mbatudde et al. (2023) in central Uganda. Furthermore, it is slightly lower than the 30% stated by Prasad (2021) in the USA. This incidence reveals that a considerable percentage of health staff in the A&E department are under vast challenges in their professions.

Furthermore, the distribution of stress levels in this study reveals that 53.13% of respondents experienced moderate stress, which is lower than the 71% prevalence identified by Almutairi et al. (2024) in Saudi Arabia. This overlap shows that the factors leading to job-related stress in A&E environments may be globally relevant, transcending regional and economic limitations.

Multiple reasons are likely responsible for the stress levels seen among healthcare professionals in this study. Initially, inadequate staffing in A&E departments frequently results in an excessive workload, intensified by insufficient personnel (Liu et al., 2024). While the statistic indicating that 87.5% of respondents work 48 hours or fewer weekly may imply moderate workloads, the demanding nature of A&E employment frequently renders even shorter hours exceptionally burdensome. Emotional issues significantly impact healthcare personnel, who confront critical care conditions, such as trauma cases and end-of-life scenarios, imposing substantial emotional demands on them. Engagement with patients and families may result in compassion fatigue, a recognized factor contributing to stress in hospital environments (González-Pascual et al., 2024).

5.3 Factors associated with occupational stress among doctors in the accident and emergency unit

5.3.1 Factors associated with occupational stress

The research revealed age as a variable linked to occupational stress among healthcare professionals, especially in the Accident and Emergency departments. This study found that younger workers (ages 20-30) reported elevated levels of moderate stress, with 57.6% reporting they feel stress consistently. This conclusion corresponds with previous research indicating that younger professionals frequently encounter more difficulties in acclimating to the high-pressure requirements of healthcare settings (Razu et al., 2021). Research by Croghan et al. (2021) indicated that younger healthcare professionals exhibit greater vulnerability to stress owing to insufficient experience and coping strategies. They may also experience an overwhelming emotional burden from critical care circumstances, rendering them more susceptible to the detrimental impacts of professional stress (Prodromou et al., 2018). Moreover, as individuals mature and acquire experience, they may cultivate enhanced coping mechanisms and resilience, resulting in reduced stress levels.

Marital status significantly influences occupational stress levels among healthcare workers, as this study indicates that single persons reported a greater prevalence of moderate stress (65.6%) compared to their married counterparts. This corresponds with the research of Adamczyk and Segrin (2015), who observed that persons lacking a spouse frequently endure heightened psychological suffering, partially attributable to the absence of emotional support inherent in married partnerships. A partner's support system can provide as a buffer against the intense demands and emotional problems encountered in high-stress areas such as A&E departments. Moreover, the correlation between marital status and work stress underscores the significance of social relationships. De Oliveira et al. (2021) assert that robust personal interactions can markedly alleviate stress and improve overall well-being among healthcare workers (Buonomo et al., 2022).

The research indicates that there is a correlation between occupational stress and education level among healthcare workers. Specifically, individuals who have earned a bachelor's degree report higher levels of stress (38.5%). The research conducted by Cutler and Lleras-Muney (2010), which demonstrates that education alleviates stress by providing individuals with information and skills that foster healthier behaviors and enhanced stress management, is in direct opposition to this conclusion. Education improves competencies, thereby mitigating the adverse effects of stress on health and providing individuals with the necessary tools for more effective stress management (Schoger, 2023). Stress levels are not only directly reduced by education, but the adverse effects of work-related pressures on well-being are also greatly reduced. This study demonstrates that occupational stress is correlated with the duration of experience in the A&E department. Employees with 1-5 years of experience reported moderate stress levels (56.3%), while those with 16-20 years of experience reported significantly higher stress levels (100%). Yuwanich et al. (2016) found that beginner employees may initially experience stress due to inexperience and adaptation difficulties, while experinced staff may become inundated by cumulative stressors, such as emotional fatigue and burnout, as a result of extended exposure to high-pressure environments. This trend is consistent with their findings.

In addition, healthcare professionals' occupational stress levels were interrelated with their shift patterns, with rotating shift workers reporting elevated stress levels (31.9%). This finding is supported by the research conducted by Cummings et al. (2020), which underscores the potential for rotating shifts to disrupt personal life and sleep patterns, leading to increased tension and exhaustion. The unpredictability of shift work frequently impedes the ability of workers to maintain a healthy work-life balance, which in high-pressure environments exacerbates feelings of anxiety (Costa et al., 2014). The necessity for healthcare businesses to prioritize employee well-being in the formulation of work hours is underscored by the influence of shift patterns on stress levels.

Moreover, church attendance has a notable correlation with occupational stress levels among healthcare professionals, as seen by this study indicating that persons who attend church weekly reported moderate stress levels (53.1%). This discovery corresponds with the research conducted by

Der Peter Pan et al. (2012), indicating that engagement in religious activities can offer emotional support, foster a feeling of community, and give coping strategies that mitigate stress. For several individuals, consistent church attendance cultivates a structured atmosphere that enhances resilience and well-being. The study indicated a correlation between participation in extracurricular activities and occupational stress levels, with participants in these activities reporting elevated stress levels (38.7%). This study contradicts the prevailing research, which often highlights the beneficial impacts of extracurricular involvement on stress alleviation. Research by Fares et al. (2016) indicates that engagement in leisure activities might improve well-being, serving as a significant means of stress alleviation and fostering work-life balance. The heightened stress experienced by participants in extracurricular activities in this study may indicate the additional pressures and responsibilities associated with managing work and supplementary commitments.

5.3.2 Factors that predict occupational Stress

The study's results demonstrate that tenure in the A&E department is a major predictor of occupational stress, especially for healthcare professionals with 1-5 years of experience. The logistic regression study indicates that healthcare personnel with 1-5 years of experience in A&E are 3.718 times more likely to feel stress than those with 21-25 years of experience. This suggests that professionals with less experience are at a higher risk of experiencing occupational stress. The increased tension experienced by less experienced A&E personnel may be explained by a variety of variables. Those who are less experienced in the field may encounter greater challenges when traversing high-pressure scenarios that are common in emergency care. These challenges may include managing critical patients, making rapid judgments, and contending with emotional stresses such as patient fatalities or trauma. According to Bahadirli and Sagaltici (2021), healthcare personnel who lack experience frequently encounter challenges in managing the demands of emergency treatment, which results in elevated stress levels.

Moreover, less experienced A&E personnel may lack the resilience and coping strategies acquired from extended exposure to the high-stress atmosphere of emergency rooms. A study conducted in

Bangkok indicated that stress levels diminish as experts accumulate years of experience, leading to enhanced confidence and knowledge with protocols and processes (Yuwanich et al., 2016). With time, seasoned employees develop support networks and techniques to alleviate the mental and physical demands of their roles, elucidating why those with greater experience report diminished stress levels.

Furthermore, the study indicates that healthcare professionals who work fewer than 48 hours per week are 2.453 times more susceptible to stress compared to those working over 60 hours. This result is somewhat paradoxical, as it is reasonable to assume that a reduction in working hours would result in a decrease in stress levels. One potential explanation for this discovery is that healthcare personnel who work fewer hours may encounter increased work intensity or encounter greater challenges in managing their caseload within their constrained schedules. Reduced work hours may lead to condensed burdens in emergency departments, which are characterized by high-stress conditions and time-sensitive decisions, thereby increasing the pressure to operate efficiently within a limited timeframe. This is consistent with the results of Huang et al. (2023), who found that the intensity and complexity of the tasks performed during those hours have an impact on the perceived stress, which is not solely a direct result of the number of hours worked. Additionally, tension may arise from the discontinuity in patient care, a common issue in emergency rooms that are characterized by frequent shift rotations, for healthcare professionals who have reduced working hours. As demonstrated by Izdebski et al. (2023) in their investigation of stress and burden among healthcare professionals, healthcare workers may experience feelings of inadequacy or stress as a consequence of reduced working hours, which may limit their ability to develop confidence in managing critical situations.

The research demonstrated that healthcare professionals who did not participate in extracurricular activities were 0.477 times less likely to experience tension than their colleagues who did. This implies that the act of refraining from extracurricular activities may serve as a protective factor against stress. This is in direct opposition to other research that suggests that extracurricular activities provide a means of tension relief, relaxation, and social interaction that extends beyond the demanding medical environment. These activities frequently offer opportunities to pursue interests, engage in physical exercise, or socialize, all of which are acknowledged to improve well-being and alleviate tension

(Fares et al., 2016). The research suggests that individuals who do not attend church are 0.477 times more likely to experience tension than those who attend church more than three times per week (OR = 0.477, p = 0.040).

This indicates that consistent engagement in religious or spiritual activities may contribute to the reduction of professional stress. Religious practices, like church attendance, can offer emotional and social support, aiding individuals in managing work-related stress. These environments provide a feeling of community, avenues for introspection, and access to faith-based coping techniques. This corresponds with a research by Der Peter Pan et al. (2012) that shown a correlation between religious engagement and reduced stress levels, as well as enhanced psychological well-being, attributable to the support networks and resilience-building behaviors inherent in religious groups. Conversely, healthcare professionals who do not participate in religious services may be deprived of certain social and emotional support networks, which might result in heightened feelings of isolation and stress.

5.4 Coping strategies among health workers in Accident and Emergency Department

The study's results demonstrate that tenure in the A&E department is a major predictor of occupational stress, especially for healthcare professionals with 1-5 years of experience. The logistic regression study indicates that healthcare personnel with 1-5 years of experience in A&E are 3.718 times more likely to feel stress than those with 21-25 years of experience. This indicates that less experienced professionals have an elevated risk of occupational stress. Multiple variables may elucidate the heightened stress faced by less seasoned A&E personnel. Individuals with less experience in the profession may confront more difficulties in navigating high-pressure scenarios typical in emergency care, including managing critical patients, making rapid judgments, and coping with emotional stresses such as patient fatalities or trauma. Bahadirli and Sagaltici (2021) assert that healthcare staff with less experience frequently have difficulties in managing the demands of emergency treatment, leading to elevated stress levels. Moreover, less experienced A&E personnel may lack the resilience and coping strategies acquired from extended exposure to the high-stress atmosphere of emergency rooms. A study conducted in Bangkok indicated that stress levels diminish as experts accumulate years of experience, leading to enhanced confidence and knowledge with protocols and processes (Yuwanich

et al., 2016). With time, seasoned employees develop support networks and techniques to alleviate the mental and physical demands of their roles, elucidating why those with greater experience report diminished stress levels.

Additionally, the research suggests that healthcare professionals who work fewer than 48 hours per week are 2.453 times more inclined to experience tension than those who work over 60 hours. This result is somewhat paradoxical, as it is reasonable to assume that a reduction in working hours would result in a decrease in stress levels. One potential explanation for this discovery is that healthcare personnel who work fewer hours may encounter increased work intensity or encounter greater challenges in managing their caseload within their constrained schedules. Reduced work hours may lead to condensed burdens in emergency departments, which are characterized by high-stress conditions and time-sensitive decisions, thereby increasing the pressure to operate efficiently within a limited timeframe. This is consistent with the results of Huang et al. (2023), who found that the intensity and complexity of the tasks performed during those hours have an impact on the perceived stress, which is not solely a direct result of the number of hours worked. Additionally, tension may arise from the discontinuity in patient care, a common issue in emergency rooms that are characterized by frequent shift rotations, for healthcare professionals who have reduced working hours. As demonstrated by Izdebski et al. (2023) in their investigation of stress and burden among healthcare professionals, healthcare workers may experience feelings of inadequacy or stress as a consequence of reduced working hours, which may limit their ability to develop confidence in managing critical situations.

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(Fares et al., 2016). The research suggests that individuals who do not attend church are 0.477 times more likely to experience tension than those who attend church more than three times per week (OR = 0.477, p = 0.040). This suggests that the reduction of professional stress may be facilitated by consistent participation in religious or spiritual activities. Religious practices, such as attending church, can provide emotional and social support, which can help individuals manage work-related stress. These environments offer a sense of community, opportunities for introspection, and access to faith-based coping strategies. This is consistent with the findings of Der Peter Pan et al. (2012), who demonstrated a correlation between religious engagement and improved psychological well-being and reduced stress levels. This correlation is attributed to the resilience-building behaviors and support networks that are inherent in religious organizations. In contrast, healthcare personnel who refrain from attending religious services may experience increased feelings of isolation and tension as a consequence of being deprived of specific social and emotional support networks.

5.5 Conclusion

Experience, working hours, participation in extracurricular activities, shift patterns, and religious practices are among the numerous critical factors that influence occupational stress among healthcare professionals in Accident and Emergency departments, as identified by the study. The overall well-being and performance of healthcare personnel in high-pressure settings can be significantly improved by mitigating these factors through specific interventions, such as the reduction of excessive working hours, the promotion of participation in stress-relief activities, the provision of flexible shift schedules, the enhancement of supervisory support, and the establishment of emotional or faith-based support systems.

5.6 Recommendations

It is imperative to improve organizational support systems. In order to alleviate the burden and ensure adequate coverage during peak periods, hospitals must increase their employment levels by employing additional professionals. In order to balance the demands of the job and guarantee that healthcare professionals receive sufficient refreshment, it is imperative to implement flexible scheduling

strategies. Additionally, in order to offer A&E personnel stress management and counseling options, it is imperative to establish accessible counseling services, such as in-house mental health support facilities.

It is imperative to include training and capacity-building programs. In order to equip health personnel with effective stress management strategies, including mindfulness, time management, and relaxation techniques, it is necessary to conduct regular stress management seminars. In the high-pressure A&E workplace, programs that are intended to improve resilience can help workers develop coping strategies and improve their overall mental health.

Stress may be significantly diminished by enhancing the office environment. Hospitals must prioritize the modernization of infrastructure and equipment in A&E departments to alleviate the tension associated with resource insufficiency. Designated secure areas for employees to rest and relax during their duties can improve their mental health.

Managerial actions and policies are indispensable. Prompt responses will be facilitated by the establishment of workplace regulations that provide for the early detection and alleviation of occupational stress. The monitoring of stress levels and the provision of specific support as needed can be facilitated by consistent performance evaluations that incorporate mental health assessments. Another critical area of focus is the promotion of peer support and the improvement of teamwork. A&E personnel can develop a sense of camaraderie and peer support through the implementation of consistent team-building activities. Additionally, the development of peer support networks facilitates the exchange of experiences and coping strategies among healthcare professionals, thereby cultivating a more robust sense of community.

The long-term effects of chronic occupational stress on the mental health and job performance of healthcare workers in various hospital departments should be the focus of future research. Furthermore, investigations into the ways in which organizational culture and leadership influence stress levels could offer valuable insights for the development of more effective stress management strategies.

Reference

Adamczyk, K., & Segrin, C. (2015). Perceived Social Support and Mental Health Among Single vs. Partnered Polish Young Adults. *Current psychology (New Brunswick, N.J.)*, *34*(1), 82–96. https://doi.org/10.1007/s12144-014-9242-5

Adriaenssens, J., De Gucht, V., & Maes, S. (2015). Determinants and prevalence of burnout in emergency nurses: a systematic review of 25 years of research. International journal of nursing studies, 52(2), 649-661.

Albers, M. J. (2017). Quantitative data analysis—In the graduate curriculum. Journal of Technical Writing and Communication, 47(2), 215-233.

Al-Hrinat, J., Al-Ansi, A. M., Hendi, A., Adwan, G., & Hazaimeh, M. (2024). The impact of night shift stress and sleep disturbance on nurses quality of life: case in Palestine Red Crescent and Al-Ahli Hospital. BMC nursing, 23(1), 24. https://doi.org/10.1186/s12912-023-01673-3

Almutairi, A. F., Hamdan, N. A., Altheyabi, S., Alsaeed, E. A., Alammari, F. S., & BaniMustafa, A. (2024). The Prevalence and Associated Factors of Occupational Stress in Healthcare Providers in Saudi Arabia. *International journal of general medicine*, *17*, 809–816. https://doi.org/10.2147/IJGM.S446410

Araújo, A. F., Bampi, L. N. D. S., Cabral, C. C. D. O., Queiroz, R. S., Calasans, L. H. B., & Vaz, T. S. (2020). Occupational stress of nurses from the Mobile Emergency Care Service. Revista brasileira de Enfermagem, 73, e20180898.

Arora, R., & Gupta, R. (2021). Effectiveness of meditation programs in empirically reducing stress and amplifying cognitive function, thus boosting individual health status: A narrative overview. Indian Journal of Health Sciences and Biomedical Research kleu, 14(2), 181-187.

Bahadirli, S., & Sagaltici, E. (2021). Post-traumatic stress disorder in healthcare workers of emergency departments during the pandemic: a cross-sectional study. *The American journal of emergency medicine*, *50*, 251-255. https://doi.org/10.1016/j.ajem.2021.08.027

Beh, L. S., & Loo, L. H. (2012). Job stress and coping mechanisms among nursing staff in public

health services. *International Journal of Academic Research in Business and Social Sciences*, *2*(7), 131.

Bella, K. M. J. (2023). Exploring The Impact of Workplace Relationships And Employee Job Satisfaction. International Journal of Scientific Research in Modern Science and Technology, 2(8), 55-62. http://dx.doi.org/10.59828/ijsrmst.v2i8.136

Birhanu, M., Gebrekidan, B., Tesefa, G., & Tareke, M. (2018). Workload determines workplace stress among health professionals working in felege-hiwot referral Hospital, Bahir Dar, Northwest Ethiopia. Journal of environmental and public health, 2018.

Bourke, J., & Wessely, S. (2008). Confidentiality. Bmj, 336(7649), 888-891.

Boyacı, K., Şensoy, F., Beydağ, K. D., & Kıyak, M. (2014). Stress and stress management in health institutions. Procedia-Social and Behavioral Sciences, 152, 470-475.

Brody, A., Namatende-Sakwa, L., & Ali Ahmed, R. (2019). *Exploring gender equality in the health workforce: A study in Uganda and Somalia*. Tropical Health and Education Trust (THET).

Buonomo, I., Santoro, P. E., Benevene, P., Borrelli, I., Angelini, G., Fiorilli, C., ... & Moscato, U. (2022). Buffering the effects of burnout on healthcare professionals' health—the mediating role of compassionate relationships at work in the COVID era. *International Journal of Environmental Research and Public Health*, *19*(15), 8966. https://doi.org/10.3390/ijerph19158966

Chan, S. T., Khong, P. C. B., & Wang, W. (2017). Psychological responses, coping and supporting needs of healthcare professionals as second victims. *International nursing review*, *64*(2), 242-262. https://doi.org/10.1111/inr.12317

Clemett, V. J., & Raleigh, M. (2021). The validity and reliability of clinical judgement and decision-making skills assessment in nursing: A systematic literature review. Nurse education today, 102, 104885.

Costa, G., Anelli, M. M., Castellini, G., Fustinoni, S., & Neri, L. (2014). Stress and sleep in nurses employed in "3 × 8" and "2 × 12" fast rotating shift schedules. *Chronobiology International*, *31*(10), 1169–1178. https://doi.org/10.3109/07420528.2014.957309

Croghan, I. T., Chesak, S. S., Adusumalli, J., Fischer, K. M., Beck, E. W., Patel, S. R., Ghosh, K., Schroeder, D. R., & Bhagra, A. (2021). Stress, Resilience, and Coping of Healthcare Workers during the COVID-19 Pandemic. *Journal of primary care & community health*, *12*, 21501327211008448. https://doi.org/10.1177/21501327211008448

Dahlawi, H. H., Al Obaidellah, M. M., Rashid, N. A., Alotaibi, A. A., Al-Mussaed, E. M., Cheung, M. M. M., Abuaish, S., & Cordero, M. A. W. (2023). Defining Physician-Nurse Efforts toward Collaboration as Perceived by Medical Students. *Healthcare (Basel, Switzerland)*, *11*(13), 1919. https://doi.org/10.3390/healthcare11131919

De Wijn, A. N., & Van der Doef, M. P. (2020). Patient-related stressful situations and stress-related outcomes in emergency nurses: A cross-sectional study on the role of work factors and recovery during leisure time. *International Journal of Nursing Studies*, *107*, 103579.

Der Peter Pan, J., Lee, C.-Y., Chang, S.-H., & Jiang, J.-R. K. (2012). Using Prayer and Scripture in a Christian-Based Stress-Coping Support Group for Church Attendances: Implications for Professionals. Journal of Pastoral Care & Counseling, 66(4), 1-13. https://doi.org/10.1177/154230501206600404

Dossett, M. L., Needles, E. W., Nittoli, C. E., & Mehta, D. H. (2021). Stress Management and Resiliency Training for Healthcare Professionals: A Mixed-Methods, Quality-Improvement, Cohort Study. Journal of occupational and environmental medicine, 63(1), 64–68. https://doi.org/10.1097/JOM.0000000000002071

Evans, T. R., Burns, C., Essex, R., Finnerty, G., Hatton, E., Clements, A. J., Breau, G., Quinn, F., Elliott, H., Smith, L. D., Matthews, B., Jennings, K., Crossman, J., Williams, G., Miller, D., Harold, B., Gurnett, P., Jagodzinski, L., Smith, J., Milligan, W., … Weldon, S. (2023). A systematic scoping review on the evidence behind debriefing practices for the wellbeing/emotional outcomes of healthcare workers. Frontiers in psychiatry, 14, 1078797. https://doi.org/10.3389/fpsyt.2023.1078797

Falagas, M. E., Korbila, I. P., Giannopoulou, K. P., Kondilis, B. K., & Peppas, G. (2009). Informed consent: how much and what do patients understand?. The American Journal of

Surgery, 198(3), 420-435.

Fares, J., Saadeddin, Z., Al Tabosh, H., Aridi, H., El Mouhayyar, C., Koleilat, M. K., ... & El Asmar, K. (2016). Extracurricular activities associated with stress and burnout in preclinical medical students. *Journal of epidemiology and global health*, *6*(3), 177-185. https://doi.org/10.1016/j.jegh.2015.10.003

Figueredo, J. M., García-Ael, C., Gragnano, A., & Topa, G. (2020). Well-being at work after return to work (RTW): a systematic review. International Journal of Environmental Research and Public Health, 17(20), 7490.

Freeman, L., Fothergill-Bourbonnais, F., & Rashotte, J. (2014). The experience of being a trauma nurse: A phenomenological study. Intensive and Critical Care Nursing, 30(1), 6-12.

García-Tudela, Á., Simonelli-Muñoz, A. J., Rivera-Caravaca, J. M., Fortea, M. I., Simón-Sánchez, L., González-Moro, M. T. R., González-Moro, J. M. R., Jiménez-Rodríguez, D., & Gallego-Gómez, J. I. (2022). Stress in Emergency Healthcare Professionals: The Stress Factors and Manifestations Scale. International journal of environmental research and public health, 19(7), 4342. https://doi.org/10.3390/ijerph19074342

González-Pascual, M., Pérez-Ferreiro, M., Rodríguez de Castro, S., Cerro-González, M. D. C., & Recio-Vivas, A. M. (2024). Occupational Stress in Healthcare Professionals in Spain: A Multicenter Study. *Hispanic Health Care International*, doi:10.1177/15404153241269512

Healy, S., & Tyrrell, M. (2011). Stress in emergency departments: experiences of nurses and doctors. Emergency nurse, 19(4).

Herraiz-Recuenco, L., Alonso-Martínez, L., Hannich-Schneider, S., & Puente-Alcaraz, J. (2022). Causes of Stress among Healthcare Professionals and Successful Hospital Management Approaches to Mitigate It during the COVID-19 Pandemic: A Cross-Sectional Study. International journal of environmental research and public health, 19(19), 12963. https://doi.org/10.3390/ijerph191912963

Huang, Y., Xiang, Y., Zhou, W., Jiang, Y., Wang, Z., & Fang, S. (2023). Short working hours and perceived stress: Findings from a population-based nationwide study. *Heliyon*, *9*(11).

https://doi.org/10.1016/j.heliyon.2023.e21919

Huggard, J. (2013). Debriefing: a valuable component of staff support. International journal of palliative nursing, 19(5), 212-214. http://dx.doi.org/10.12968/ijpn.2013.19.5.212

Inoue, A., Kawakami, N., Shimomitsu, T., Tsutsumi, A., Haratani, T., Yoshikawa, T., ... & Odagiri, Y. (2016). Development of the new brief job stress questionnaire. Psychosocial factors at work in the Asia Pacific: from theory to practice, 225-247.

International Labor Organization (ILO) (2016). Workplace Stress: A Collective Challenge. International Labor Office; Genève, Switzerland: 2016.

Izdebski, Z., Kozakiewicz, A., Białorudzki, M., Dec-Pietrowska, J., & Mazur, J. (2023). Occupational Burnout in Healthcare Workers, Stress and Other Symptoms of Work Overload during the COVID-19 Pandemic in Poland. International journal of environmental research and public health, 20(3), 2428. https://doi.org/10.3390/ijerph20032428

Johansson, H. (2014). Stressors in Ugandan nurses' working-environment: An observational study.

Johnston, A., Abraham, L., Greenslade, J., Thom, O., Carlstrom, E., Wallis, M., & Crilly, J. (2016). Review article: Staff perception of the emergency department working environment: Integrative review of the literature. Emergency medicine Australasia : EMA, 28(1), 7–26. https://doi.org/10.1111/1742-6723.12522

Liu, Q., Xie, C., Tan, J., Xu, L., Zhou, F., & Peng, L. (2024). Exploring the nurses' experiences in recognising and managing clinical deterioration in emergency patients: A qualitative study. *Australian Critical Care*, *37*(2), 309-317.

Luggya, T. S., Ngabirano, A. A., Sarah, R., Mabweijano, J., Osire, J., Achieng, L., Nabulime, J., & Bangirana, A. (2022). Trauma unit admissions at the Ugandan National Referral Hospital: a descriptive study. African health sciences, 22(1), 404–409. https://doi.org/10.4314/ahs.v22i1.49

Lv, C., Gan, Y., Feng, J., Yan, S., & Han, X. (2023). Occupational stress of physicians and nurses in emergency departments after contracting COVID-19 and its influencing factors: a cross-sectional study. Frontiers in Public Health, 11, 1169764.

Mbatudde, D., Sarki, A., Halperin, O., Asuquo, E., & Edwards, G. (2023). Work-related stress among midwives in Central Uganda. A key comparison between ruralurban and private-public midwives: A Cross-sectional Study. *Journal of Asian Midwives*, *10*(1).

McCormick, E., Devine, S., Crilly, J., Brough, P., & Greenslade, J. (2023). Measuring occupational stress in emergency departments. Emergency Medicine Australasia, 35(2), 234-241.

McVicar, A., Ravalier, J. M., & Greenwood, C. (2014). Biology of stress revisited: intracellular mechanisms and the conceptualization of stress. Stress and Health, 30(4), 272-279. https://doi.org/10.1002/smi.2508

Ministry of Health [MoH] (2024).Mulago National Referral Hospital https://www.health.go.ug/sermon/mulago-national-referral-hospital/

Mirzaei, A., Mozaffari, N., & Soola, A. H. (2022). Corrigendum to "Occupational stress and its relationship with spiritual coping among emergency department nurses and emergency medical services staff"[Int. Emergency Nurs. 62 (2022) 101170]. International Emergency Nursing, 64, 101187.

Musiimenta, P., Munezero, J. B. T., Moazzam, M. L., & Kabanyoro, A. (2022). Occupational stress and its health outcomes among nurses in health facilities of Bushenyi district Western Uganda. Special Journal of Public Health, Nutrition, and Dietetics, 2(2), 1-12.

Nyakamadi, J. (2019). *Occupational stress and performance of nurses in mulago national referral hospital* (Doctoral dissertation, Uganda Management Institute).

Okoroafor, S. C., Kwesiga, B., Ogato, J., Gura, Z., Gondi, J., Jumba, N., Ogumbo, T., Monyoncho, M., Wamae, A., Wanyee, M., Angir, M., Almudhwahi, M. A., Evalyne, C., Nabyonga-Orem, J., Ahmat, A., Zurn, P., & Asamani, J. A. (2022). Investing in the health workforce in Kenya: trends in size, composition and distribution from a descriptive health labour market analysis. BMJ global health, 7(Suppl 1), e009748. https://doi.org/10.1136/bmjgh-2022-009748

Olsen, C., & St George, D. M. M. (2004). Cross-sectional study design and data analysis. College entrance examination board, 26(03), 2006.

Portero de la Cruz, S., Cebrino, J., Herruzo, J., & Vaquero-Abellán, M. (2020). A multicenter study into burnout, perceived stress, job satisfaction, coping strategies, and general health among emergency department nursing staff. Journal of clinical medicine, 9(4), 1007. doi:10.3390/jcm9041007

Prasad, K., McLoughlin, C., Stillman, M., Poplau, S., Goelz, E., Taylor, S., ... & Sinsky, C. A. (2021). Prevalence and correlates of stress and burnout among US healthcare workers during the COVID-19 pandemic: a national cross-sectional survey study. *EClinicalMedicine*, *35*.

Prodromou, M., Stergiou, C., Themistocleous, S., Koukoylaris, D., & Lavranos, G. (2018). Identifying the? needs for-work Related Stress Management Among Young Health Professionals: The boostress study. *Nosileftiki*, *57*(1).

Rajabi, F., Jahangiri, M., Molaeifar, H., Honarbakhsh, M., & Farhadi, P. (2018). Occupational stress among nurses and pre-hospital emergency staff: application of fuzzy analytic hierarchy process (FAHP) method. EXCLI journal, 17, 808.

Razu, S. R., Yasmin, T., Arif, T. B., Islam, M. S., Islam, S. M. S., Gesesew, H. A., & Ward, P. (2021). Challenges faced by healthcare professionals during the COVID-19 pandemic: a qualitative inquiry from Bangladesh. *Frontiers in public health*, *9*, 647315.

Rink, L. C., Oyesanya, T. O., Adair, K. C., Humphreys, J. C., Silva, S. G., & Sexton, J. B. (2023). Stressors Among Healthcare Workers: A Summative Content Analysis. Global qualitative nursing research, 10, 23333936231161127. https://doi.org/10.1177/23333936231161127

Salami, Z., Mozaffari, N., & Mohammadi, M. A. (2023). Perceived stress and coping strategies among emergency department nurses and emergency medical services staff during the fifth wave of COVID-19 in Iran: A cross-sectional correlational study. International journal of Africa nursing sciences, 18, 100572.

Schoger, L. I. (2023). Coping with work-related stressors: does education reduce work-related stress?. *Journal of Public Health*, 1-12. https://doi.org/10.1007/s10389-023-02070-5

Schroder, C., Medves, J., Paterson, M., Byrnes, V., Chapman, C., O'Riordan, A., ... & Kelly, C. (2011). Development and pilot testing of the collaborative practice assessment tool. Journal of

interprofessional care, 25(3), 189-195.

Shukla, P., & Pandey, U. (2023). Academic Integrity and Research Ethics: a teaching and learning imperative. Navjagran Prakashan.

Tsai, L. H., See, L. C., Fan, J. Y., Tsai, C. C., Chen, C. M., & Peng, W. S. (2024). Trajectory of change in perceived stress, coping strategies and clinical competence among undergraduate nursing students during clinical practicum: a longitudinal cohort study. *BMC Medical Education*, *24*(1), 349.https://doi.org/10.1186/s12909-024-05332-2

Tsutsumi, A., Inoue, A., & Eguchi, H. (2017). How accurately does the Brief Job Stress Questionnaire identify workers with or without potential psychological distress? Journal of occupational health, 59(4), 356–360. https://doi.org/10.1539/joh.17-0011-BR

Uddin, H., Hasan, M. K., & Castro-Delgado, R. (2023). Effects of mass casualty incidents on anxiety, depression and PTSD among doctors and nurses: a systematic review protocol. BMJ open, 13(9), e075478. https://doi.org/10.1136/bmjopen-2023-075478

Ulrich, B. T., Lavandero, R., Woods, D., & Early, S. (2014). Critical care nurse work environments 2013: a status report. Critical care nurse, 34(4), 64-79.

Umoe, D. E., Ella, R. E., Esienumoh, E., Nwakwue, N. C., & Catherine, T. P. (2020). Stress related factors among nurses working in accident and emergency in a selected federal government hospital in South-South Nigeria. Global Journal of Health Science, 12(8), 166-175.

Watson, R. (2015). Quantitative research. Nursing standard, 29(31).

World Health Organisation (2022). Mental health at work. https://www.who.int//news-room/fact-sheets/detail/mental-health-at-work/?gad_source=1&gclid=Cj0KCQjw2PSvBhDjARIsAKc2cgNUprIQI9JCgXcb4V_8Hiv2xAhdMuvqKdJ5x3ON9RB7iMwfI7Ysnq0aAhMdEALw_wcB Accessed on 20th March 2024

Wu, A., Roemer, E. C., Kent, K. B., Ballard, D. W., & Goetzel, R. Z. (2021). Organizational Best Practices Supporting Mental Health in the Workplace. Journal of occupational and environmental medicine, 63(12), e925–e931.

https://doi.org/10.1097/JOM.0000000000002407

Yuwanich, N., Sandmark, H., & Akhavan, S. (2016). Emergency department nurses' experiences of occupational stress: A qualitative study from a public hospital in Bangkok, Thailand. *Work*, *53*(4), 885-897. DOI: 10.3233/WOR-152181

Zack, B. (2024). Less-educated workers enter healthcare. https://www.fiercehealthcare.com/healthcare/less-educated-workers-enter-healthcare Accessed on 26 September 2024.

APPENDIX I: CONSENT FORM

Study Title: Determinants of Occupational Stress Among Health Workers in the Accident and Emergency Department at two hospitals in Kampala.

1. Introduction: You are being invited to participate in a research study conducted by [Researcher's Name], a researcher from [Institution]. The purpose of this study is to investigate the determinants of occupational stress among Health Workers in the Accident and Emergency Department at two hospitals in Kampala.

2. Study Objectives: The main objective of this research is to identify the factors contributing to occupational stress among Health Workers in the Accident and Emergency Department at two hospitals in Kampala. The specific objectives are as follows:

I. To determine the prevalence of perceived job-related stress among healthcare workers in the Accident and Emergency (A&E) department at two hospitals in Kampala.
II. To identify the factors associated with occupational stress among doctors in the Accident and Emergency unit at two hospitals in Kampala.
III. To examine how health workers in the Accident and Emergency Department at two hospitals in Kampala cope with occupational stress.

3. Participation: Your participation in this study is entirely voluntary. You have the right to refuse to participate or withdraw from the study at any time without any consequences. Your decision will not affect your relationship with hospitals in Kampala or any associated institutions.

4. Procedures: If you agree to participate, you will be asked to complete a questionnaire that includes questions about your job-related stress, coping mechanisms, and demographic information. Your responses will be kept confidential, and your identity will be anonymized in any reports or publications arising from this study.

5. Risks and Benefits: There are no known risks associated with participating in this study. However, discussing occupational stress may cause discomfort for some participants. The benefits of participating include contributing to research that may help identify strategies to improve the well-

being of Health Workers in the Accident and Emergency Department.

6. Confidentiality: Your privacy and confidentiality will be strictly maintained throughout the study. All data collected will be stored securely and accessible only to authorized personnel. Your name or any identifying information will not be disclosed in any reports or publications.

7. Contact Information: If you have any questions or concerns about the study, you may contact Dr. Tebita John Paul at +256 781257127. Additionally, if you have any concerns about your rights as a participant, you may contact the Institutional Review Board Chairperson at +256 772957345.

8. Consent: By signing this form, you indicate that you have read and understood the information provided above, and you voluntarily agree to participate in this study.

Participant's Signature: _____ Date: _____

Researcher's Signature: _____ Date: _____

[Please retain a copy of this consent form for your records]

APPENDIX: QUESTIONNAIRE

My name is Dr. John Paul Tebita, a Masters student at Uganda Christian University undertaking research titled "Determinants of Occupational Stress Among Health Workers in the Accident and Emergency Department at Mulago and Kirudu Hospitals" as part of the course. I kindly request you to participate in the research by filling this questionnaire. I wish to assure you that any information given will be treated with utmost confidentiality and will be used only for purposes of this research

Instructions

- Do not write your name on the Questionnaire
- Indicate the selected response by placing a tick in the appropriate cell/box
- Please be accurate and honest with your response.

1. Age in Years: ☐
2. Sex

Male: ☐ Female: ☐

3. Marital status

Married: ☐ Single: ☐ Divorced/Separated: ☐

4. Religion:

Catholics ☐ Anglicans ☐ Pentecostal ☐

Moslem ☐ Traditional ☐

Other, please specify…….

5. Job Title/Position

Doctor ☐ Nurse ☐ Clinician ☐ Support Staff ☐

6. Years of Experience in Healthcare ☐
7. Years of Experience in the Accident and Emergency Department ☐

8. Length of Current Employment at this Hospital ☐

9. Number of Hours Worked per Week ☐

10. Shift Schedule

Day ☐ Night ☐ Rotating ☐ Other ☐

11. How often do you attend church or go to the mosque in week? (Religiosity)

One time ☐ 2 to 3 times ☐ more than 3 times ☐

12. Education Level

Certificate: ☐ Diploma: ☐ Bachelor's Degree ☐

Masters and above ☐

13. Are you involved in any community group in the community?

Yes ☐ No ☐

14. Household car access

None ☐ One car ☐ Two or More Cars ☐

15. Are you involved in extracurricular activities

Yes ☐ No ☐

The Brief Job Stress Questionnaire English version

Please answer the following questions concerning your job by circling the number that best fits your situation.

		Very much so	Moderately so	Somewhat	Not at all
1.	I have an extremely large amount of work to do	1	2	3	4
2.	I can't complete work in the required time	1	2	3	4
3.	I have to work as hard as I can	1	2	3	4
4.	I have to pay very careful attention	1	2	3	4
5.	My job is difficult in that it requires a high level of knowledge and technical skill	1	2	3	4
6.	I need to be constantly thinking about work throughout the working day	1	2	3	4
7.	My job requires a lot of physical work	1	2	3	4
8.	I can work at my own pace	1	2	3	4
9.	I can choose how and in what order to do my work	1	2	3	4
10.	I can reflect my opinions on workplace policy	1	2	3	4
11.	My knowledge and skills are rarely used at work	1	2	3	4
12.	There are differences of opinion within my department	1	2	3	4
13.	My department does not get along well with other departments	1	2	3	4
14.	The atmosphere in my workplace is friendly	1	2	3	4
15.	My working environment is poor (e.g. noise, lighting, temperature, ventilation)	1	2	3	4
16.	This job suits me well	1	2	3	4
17.	My job is worth doing	1	2	3	4

Please answer the following questions concerning your health during the past month by circling the number that best fits your situation.

	Almost never	Sometimes	Often	Almost always
18. I have been very active	1	2	3	4
19. I have been full of energy	1	2	3	4
20. I have been lively	1	2	3	4
21. I have felt angry	1	2	3	4
22. I have been inwardly annoyed or aggravated	1	2	3	4
23. I have felt irritable	1	2	3	4
24. I have felt extremely tired	1	2	3	4
25. I have felt exhausted	1	2	3	4
26. I have felt weary or listless	1	2	3	4
27. I have felt tense	1	2	3	4
28. I have felt worried or insecure	1	2	3	4
29. I have felt restless	1	2	3	4
30. I have been depressed	1	2	3	4
31. I have thought that doing anything was a hassle	1	2	3	4
32. I have been unable to concentrate	1	2	3	4
33. I have felt gloomy	1	2	3	4
34. I have been unable to handle work	1	2	3	4
35. I have felt sad	1	2	3	4
36. I have felt dizzy	1	2	3	4
37. I have experienced joint pains	1	2	3	4
38. I have experienced headaches	1	2	3	4
39. I have had a stiff neck and / or shoulders	1	2	3	4
40. I have had lower back pain	1	2	3	4
41. I have had eyestrain	1	2	3	4

42. I have experienced heart palpitations or shortness of breath	1	2	3	4
43. I have experienced stomach and / or intestine problems	1	2	3	4
44. I have lost my appetite	1	2	3	4
45. I have experienced diarrhea and / or constipation	1	2	3	4
46. I haven't been able to sleep well	1	2	3	4

Please answer the following questions concerning people around you by circling the number that best fits your situation.

	Extremely	Very much	Somewhat	Not at all
How freely can you talk with the following people?				
47. Superiors	1	2	3	4
48. Co-workers	1	2	3	4
49. Spouse, family, friends, etc.	1	2	3	4
How reliable are the following people when you are troubled?				
50. Superiors	1	2	3	4
51. Co-workers	1	2	3	4
52. Spouse, family, friends, etc.	1	2	3	4
How well will the following people listen to you when you ask for advice on personal matters?				
53. Superiors	1	2	3	4
54. Co-workers	1	2	3	4

55. Spouse, family, friends, etc. 1 2 3 4

Please answer the following questions concerning satisfaction by circling the number that best fits your situation.

	Satisfied	Somewhat satisfied	Somewhat dissatisfied	Dissatisfied
56. I am satisfied with my job	1	2	3	4
57. I am satisfied with my family life	1	2	3	4

Please answer the following questions concerning how you cope with job stress by circling the number that best fits yoursituation.

	Very much so	Moderately so	Somewhat	Not at all
58. Friends are the key sources of support during stressful periods…….	1	2	3	4
59. Work associates were the key sources of support during stressful periods……	1	2	3	4
60. My faith helps me to cope with stress……	1	2	3	4
61. Interactions with the supervisor takes place on a daily basis and function not only as problem-solving resource but also a learning process…….	1	2	3	4
62. Personal time alone helps me cope with stress……...	1	2	3	4

THANK YOU

UGANDA CHRISTIAN UNIVERSITY

A Centre of Excellence in the Heart of Africa

UGANDA CHRISTIAN UNIVERSITY

SCHOOL OF RESEARCH & POSTGRADUATE STUDIES

DISSERTATION CORRECTION COMPLIANCE REPORT BY THE CANDIDATE (POST VIVA FORM)

Date: 2ND/MAY/2025
Name of Candidate: TEBITA JOHNPAUL **Reg. No:** RM22M21/010
Title of Dissertation: DETERMINANTS OF OCCUPATIONAL STRESS AMONG HEALTH WORKERS IN THE ACCIDENT AND EMERGENCY DEPARTMENTS IN MULAGO AND KIRUNDU NATIONAL REFERAL HOSPITALS IN KAMPALA

SN	EXAMINER COMMENTS BY VIVA VOCE PANNEL	ACTION TAKEN	INDICATOR
1	1. You collected data from Mulago and Kiludu; was there a difference between Mulago and Kiludu or they were all the same? Was this difference captured in the book, if not please capture it	No difference was note since all of them are national referrals	
2	2. You need to define well what you mean by Occupational Stress and not a text book definition. How were you able to identify the different workers who have stress and those who don't have? Your study should provide a	Addressed and corrected	

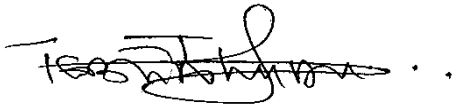
	better definition of stress you are looking at.		
3	3. Did you go to Medical wards or surgical wards. Did you look at these wards in entirety? Please bring it out clearly the kind of wards you visits or used and describe the setting properly and not other wards.	It was limited only to the accident and the emergency department	
5	5. Relate your objectives to the conclusion. This needs to be very clear	Addressed and corrected	
6	6. Your recommendations should be very well addressed.	Addressed and corrected	
8	8. Did you look at the difference btn stress and health care workers. How many were doctors, nurses were these supervisors or workers? Please use your data to compare the different qualifications and cadres and their different stress levels.	Addressed in results and conculusions	
9	9. Report confidence intervals as you report your preferences, as a limitation	addressed	

SN	COMMENTS BY INTERNAL EXAMINER	ACTION TAKEN	INDICATOR
1	The student needs to carefully work on the grammatical errors as well as some sections that were left highlighted in the dissertation.	Addressed and corrections made	
2	The recommendations should be made towards the students study and should be bulleted so that the readers can easily follow.	Addressed and corrections done	
3	Where the research assistants trained on the study procedures? Where standard	Yes, training was done before data collection	
4	Did the candidate review the collected data	Yes, that was done carefully	

	regularly to ensure that there were accurate and correctly filled.		
5	Was double data entry carried out? If yes, why? How did the candidate ensure that the	Yes, it was by the candidate entering the data and the other statistician entering the same data, and the comparison was done	
6	quality data was entered? Who carried out the analysis?12/15	A data statistician analysed.	
7	How were the data collection forms kept? Who carried out the data entry?	Addressed and were kept in a waterproof bag	

SN	COMMENTS BY EXTERNAL	ACTION TAKEN	INDICATOR
1	No statement is given on non- participation consideration.	Addressed in the inclusion and exclusion criteria	
2	Very minor typos were detected.	Addressed and fixed	
3	The Supervisor for the research is Dr. Edward Kibikyo Mukooza who has duly signed the report showing his approval. However, the candidate has not signed the report. The candidate should sign the report to show ownership.	Work signed	

TEBITA JOHNPAUL
Candidate's Name



Signature

Dr. Edward Kibikyo Mukooza
Supervisor's Name

TEBITA JOHNPAUL,
0781257127/0702191988
ludutebita@gmail.com
KAMPALA – UGANDA

4TH JULY, 2024.

THE RESEARCH COMMITTEE,
KIRUDDU NATIONAL REFERRAL HOSPITAL,
P.O.BOX 7003,
KAMPALA – UGANDA

Dear Sir/Madam,

RE: ADMINISTRATIVE CLEARANCE FOR DATA COLLECTION.

Am Dr. Tebita Johnpaul persuing a masters degree in public health at Uganda Christian University Mukono.

I hereby submit my request to collect data at Accident and emergency in order to complete my research titled "DETERMINANTS OF OCCUPATIONAL STRESS AMONG HEALTH WORKERS IN THE ACCIDENT AND EMERGENCY DEPARTMENT IN TWO NATIONAL REFERRAL HOSPITALS IN KAMPALA" which is a requirement to attain my Masters degree at the institution.

I will be greatful if my request is put into your positive consideration.

Yours sincerely,

.....,

TEBITA JOHNPAUL

TEBITA JOHNPAUL,
0781257127/0702191988
ludutebita@gmail.com
KAMPALA – UGANDA

4TH JULY, 2024.

THE RESEARCH COMMITTEE,
MULAGO NATIONAL REFERRAL HOSPITAL,
P.O.BOX P. O. BOX 7051,
KAMPALA – UGANDA

Dear Sir/Madam,

RE: ADMINISTRATIVE CLEARANCE FOR DATA COLLECTION.

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I hereby submit my request to collect data at Accident and emergency in order to complete my research titled "DETERMINANTS OF OCCUPATIONAL STRESS AMONG HEALTH WORKERS IN THE ACCIDENT AND EMERGENCY DEPARTMENT IN TWO NATIONAL REFERRAL HOSPITALS IN KAMPALA" which is a requirement to attain my Masters degree at the institution.

I will be greatful if my request is put into your positive consideration.

Yours sincerely,

.....

TEBITA JOHNPAUL

23rd May, 2024

Tebita Johnpaul
Uganda Christian University
0781257127
Email: ludutebita@gmail.com

UG-REC-026 APPROVAL NOTICE

To: Tebita Johnpaul, Principal Investigator

Re: UCU-REC Application titled: Determinants Of Occupational Stress Among Health Workers In The Accident And Emergency Department In Two National Refferal Hospitals In Kampala.

Application Number: UCUREC-2023-887

Version: 4.0

UGANDA CHRISTIAN UNIVERSITY APPROVED 23 MAY 2025 RESEARCH ETHICS COMMITTEE

Type: [ ] Initial Review
[ ] Protocol Amendment
[ ] Letter of Amendment (LOA)
[ ] Continuing Review
[ ] Material Transfer Agreement
[ ] Other, Specify:

I am pleased to inform you that the UG-REC-026; UCUREC approved the above referenced application.

Approval of the research is for the period from 23rd May, 2024, to 23rd May, 2025
This research is considered minimal risk category.
As Principal Investigator of the research, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Changes, amendments, and additions to the protocol or the consent form must be submitted to the REC for re-review and approval prior to the activation of the changes. The REC application number assigned to the research should be cited in any correspondence.
3. Reports of unanticipated problems involving risks to participants or other must be submitted to the REC. New information that becomes available which could change the risk: benefit ratio must be submitted promptly for REC review.

MULAGO NATIONAL REFERRAL HOSPITAL 25 JUN 2024 DEPUTY EXECUTIVE DIRECTOR RESEARCH MULAGONATIONALREFERRALHOSPITAL

4. Only approved consent forms are to be used in the enrollment of participants. All consent forms signed by subjects and/or witnesses should be retained on file. The REC may conduct audits of all study records, and consent documentation may be part of such audits.
5. Regulations require review of an approved study not less than once per 12-month period. **Therefore, a continuing review application must be submitted to the REC eight weeks prior to the above expiration date of 23rd May, 2025 in order to continue the study beyond the approved period.** Failure to submit a continuing review application in a timely fashion may result in suspension or termination of the study, at which point new participants may not be enrolled and currently enrolled participants must be taken off the study.
6. The REC application number assigned to the research should be cited in any correspondence with the REC of record.
7. Your research details have been shared with the Executive secretary of Uganda National Council for Science and Technology (UNCST) and you are not required to get clearance since you are a Masters Degree research. Refer to UNCST Research registration and clearance Policy and guidelines (July 2016) in Uganda section 6(e).

The following is the list of all documents approved in this application by UG-REC _026:

	Document Title	Language	Version	Version Date
1.	Protocol	English	1.0	2024-05-23
2.	Questionnaire	English	1.0	2024-05-23
3	Informed Consent Form	English	1.0	2024-05-23

Signed and Stamped

Prof. Peter Waiswa.
UCUREC Chairperson,
pwaiswa@musph.ac.ug

UGANDA CHRISTIAN UNIVERSITY
APPROVED
23 MAY 2025
RESEARCH ETHICS COMMITTEE