ENSIGN GLOBAL UNIVERSITY, KPONG

EASTERN REGION, GHANA

FACULTY OF PUBLIC HEALTH

DEPARTMENT OF COMMUNITY HEALTH

ASSESSING THE IMPACT OF OCCUPATIONAL STRESS ON THE MENTAL HEALTH OF STAFF AT FOCOS ORTHOPAEDIC HOSPITAL

By

ANNAN PERCY REGINALD

257100340

MAY, 2026

ENSIGN GLOBAL UNIVERSITY, KPONG

EASTERN REGION, GHANA

ASSESSING THE IMPACT OF OCCUPATIONAL STRESS ON THE MENTAL HEALTH OF STAFF AT FOCOS ORTHOPAEDIC HOSPITAL

By

ANNAN PERCY REGINALD

257100340

A THESIS SUBMITTED TO THE DEPARTMENT OF COMMUNITY HEALTH, FACULTY OF PUBLIC HEALTH, ENSIGN GLOBAL UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE

MASTER OF PUBLIC HEALTH DEGREE

MAY, 2026

DECLARATION

I, Annan Percy Reginald, hereby certify that, except for references to other people's work, which I have duly cited, this project submitted to the Department of Community Health, Ensign Global University, Kpong is the result of my own investigation, and has not been presented for any other degree elsewhere.

ANNAN PERCY REGINALD ……. ……

(ID – 257100340) Signature Date

(STUDENT)

(Certified by)

DR. ALBERTA AGUDEY …… ……

(Supervisor) Signature Date

(Certified by)

PROF. STEPHEN MANORTEY …… …….

(Head of Academic Program) Signature Date

DEDICATION

This work is dedicated first and foremost to God Almighty for His grace, strength, and guidance throughout my academic journey.

To my lecturers and mentors, thank you for your guidance, patience, and commitment to excellence, which have shaped my academic and professional growth.

Finally, this work is dedicated to all healthcare workers who continue to serve with resilience and dedication despite the challenges they face. Your commitment to improving the lives of others is truly inspiring.

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to God Almighty for His guidance, strength, and grace throughout the course of this study.

My deepest appreciation goes to my supervisor, Dr. Alberta Agudey, whose invaluable guidance, constructive feedback, and continuous support greatly contributed to the successful completion of this research. Your patience and expertise have been instrumental in shaping this work.

I am also grateful to the management and staff of FOCOS Orthopaedic Hospital for granting me permission to conduct this study and for their cooperation during data collection. I sincerely appreciate all respondents who took time out of their busy schedules to participate in this study.

Special thanks to the faculty and lecturers of the Department of Community Health, Ensign Global University, for the knowledge and training provided throughout my academic journey.

Finally, I extend my heartfelt appreciation to my family and friends for their encouragement, understanding, and unwavering support throughout this process.

LIST OF ABBREVIATIONS

Abbreviation	Full Meaning
CSP	Chartered Society of Physiotherapy
FOCOS	Foundation of Orthopaedics and Complex Spine
GAD-7	Generalized Anxiety Disorder 7-item Scale
HSS	Hospital for Special Surgery
IRB	Institutional Review Board
JD-R	Job Demands–Resources Model
LMICs	Low- and Middle-Income Countries
MRI	Magnetic Resonance Imaging
NHS	National Health Service
PHQ-9	Patient Health Questionnaire 9-item Scale
SD	Standard Deviation
WHO	World Health Organization

TABLE OF CONTENTS

DECLARATION ii
DEDICATION iii
ACKNOWLEDGEMENT iv
LIST OF ABBREVIATIONS v
LIST OF TABLES ix
LIST OF FIGURES x
ABSTRACT xii
CHAPTER ONE 1
1.0 INTRODUCTION 1
1.1 Background of the Study 1
1.2 Problem Statement 4
1.3 Rationale of the Study 6
1.4 Conceptual Framework 7
1.5 Research Questions 10
1.6 General Objective 10
1.6.1 Specific Objectives 10
1.7 Profile of the Study Area 11
CHAPTER TWO 13
2.0 LITERATURE REVIEW 13
2.1 Introduction to the Literature Review 13
2.2 Conceptual Review 14
2.2.1 Concept of Occupational Stress 14
2.2.2 Concept of Mental Health in the Workplace 15
2.2.3 Burnout, Anxiety and Depression Among Healthcare Workers 16
2.3 Empirical Review 17
2.3.1 Global Evidence on Occupational Stress and Mental Health Among Healthcare Workers 17
2.3.2 Evidence from Low- and Middle-Income Countries (LMICs) 18
2.3.3 Evidence from Ghana 19

2.3.4 Occupational Stress and Mental Health in Specialist and Surgical Healthcare Settings 21
2.3.5 Implications of Empirical Evidence for the Current Study 22
2.4 Determinants of Occupational Stress and Mental Health Outcomes among Healthcare Workers 23
2.4.1 Individual-Level Determinants 23
2.4.2 Job-Related and Organisational Determinants 24
2.4.3 Protective Factors and Coping Resources 25
2.4.4 Link to the Conceptual Framework and Study Variables 26
2.5 Summary and Research Gaps 26
CHAPTER THREE 28
3.0 METHODOLOGY 28
3.1 Study Design 28
3.2 Study Site 28
3.3 Study Population 28
3.4 Inclusion Criteria 29
3.5 Exclusion Criteria 29
3.6 Sample Size 29
3.7 Sampling Procedure 30
3.8 Data Collection Methods and Instruments 30
3.9 Pre-testing 31
3.10 Data Handling 31
3.11 Statistical Analysis 32
3.12 Dissemination of Results 33
3.13 Limitation of the Study 33
3.14 Ethical Considerations 33
CHAPTER FOUR 35
4.0 RESULTS 35
4.1 Demographic Characteristics 35
4.1.1 Age Distribution 35
4.2 Main Sources of Occupational Stress Among Staff at FOCOS Orthopaedic Hospital 38

4.3 Mean Scores of Stress, Anxiety, Depression, and Burnout Among Respondents 40
4.4 Distribution of Anxiety, Depression, and Burnout Levels Among Respondents..... 41
4.5 Relationship Between Levels of Occupational Stress and Mental Health Outcomes Among Staff. 44
4.5.1 Distribution of Occupational Stress Levels 44
4.5.2 Association Between Occupational Stress Levels and Mental Health Outcomes 45
4.5.3 Multivariable Logistic Regression Analysis of Occupational Stress and Mental Health Outcomes 46
CHAPTER FIVE 47
5.0 DISCUSSION 47
5.1 Sources of Occupational Stress Among Staff 47
5.2 Levels and Severity of Mental Health Symptoms 50
5.3 Relationship Between Occupational Stress and Mental Health Outcomes 53
CHAPTER SIX 57
6.0 CONCLUSION AND RECOMMENDATIONS 57
6.1 Conclusion 57
6.2 Study Limitations 58
6.3 Recommendations 58
REFERENCES 60
QUESTIONNAIRE 66
INFORMED CONSENT FORM 70

LIST OF TABLES

Table 4.1 Age Distribution 35
Table 4.2 Years of Service 38
Table 4.3 Main Sources of Occupational Stress Among Staff at FOCOS Orthopaedic Hospital 39
Table 4.4 Mean Scores of Stress, Anxiety, Depression, and Burnout Among Respondents . 41
Table 4.5 Distribution of Anxiety, Depression, and Burnout Levels Among Respondents .. 42
Table 4.6 Association Between Occupational Stress Levels and Mental Health Outcomes . 45
Table 4.7 Multivariable Logistic Regression Analysis of Occupational Stress and Mental Health Outcomes 46

LIST OF FIGURES

Figure 4.1 Gender Distribution..... 36
Figure 4.2 Job Role Distribution 36
Figure 4.3 Work Schedule 37
Figure 4.4 Distribution of Anxiety Levels Among Respondents (%) 42
Figure 4.5 Distribution of Depression Levels Among Respondents (%)..... 43
Figure 4.6 Distribution of Burnout Levels Among Respondents (%)..... 43
Figure 4.7 Distribution of Occupational Stress Levels Among Respondents (%) 44

ABSTRACT

Background: Occupational stress is a significant public health concern among healthcare workers globally, contributing to adverse mental health outcomes including anxiety, depression, and burnout. In Ghana, existing research has concentrated largely on general hospital settings, leaving a critical gap in evidence from specialised healthcare institutions. Staff working in orthopaedic and surgical facilities face distinct occupational demands that may heighten vulnerability to psychological distress. Despite this, no prior study has examined occupational stress and its mental health consequences specifically among staff at FOCOS Orthopaedic Hospital.

Aim: This study assessed the impact of occupational stress on the mental health of staff at FOCOS Orthopaedic Hospital, Accra, Ghana.

Methods: A quantitative cross-sectional design was employed. Using Yamane's formula applied to a known total staff population of 350, a sample of 206 participants was recruited through stratified random sampling across professional cadres. Data was collected via a structured, self-administered questionnaire incorporating adapted items from the Generalised Anxiety Disorder 7-item Scale (GAD-7), the Patient Health Questionnaire (PHQ-9), and a set of six burnout items informed by the Maslach Burnout Inventory framework. Descriptive statistics summarised participant characteristics and outcome distributions. Chi-square tests and multivariable logistic regression were used to examine associations between occupational stress and mental health outcomes.

Results: A total of 206 respondents participated (response rate: 100%). The majority were female (58.74%), and nurses constituted the largest professional group (49.51%). Over 95% of respondents reported moderate to high levels of occupational stress, with a mean stress score of 3.30 ± 0.48. The most frequently reported stressors were lack of supervisory and collegial support (34.47% always), fear of making clinical errors (30.58% always), long working hours (29.13% always), and inadequate resources (29.13% always). Regarding mental health outcomes, the majority of respondents screened positive for clinically relevant anxiety (61.66% moderate to severe on GAD-7, mean = 10.36 ± 3.04), while depressive symptoms were particularly severe, with 91.26% of respondents falling in the moderate-to-severe range on the PHQ-9 (mean = 13.98 ± 3.30). Burnout was widespread, with 90.29% of respondents experiencing moderate to high burnout (mean = 3.06 ± 0.54). Multivariable logistic regression revealed that occupational stress was significantly associated with depression (AOR = 2.54, 95% CI: 1.97–6.64, p = 0.048), indicating that staff with high stress levels were approximately 2.5 times more likely to report depressive symptoms. No statistically significant associations were found between occupational stress and anxiety (AOR = 0.66, 95% CI: 0.39–1.12, p = 0.127) or burnout (AOR = 1.03, 95% CI: 0.58–1.84, p = 0.916).

Conclusion: Occupational stress is highly prevalent among staff at FOCOS Orthopaedic Hospital, and is significantly associated with depressive symptoms. Anxiety and burnout, while widespread, did not show statistically significant associations with stress levels in this study, possibly reflecting ceiling effects and limitations in burnout measurement. These findings underscore the urgent need for targeted mental health interventions, including workload management strategies, structured supervisory support systems, and accessible psychosocial services, to protect the psychological wellbeing and professional sustainability of staff in specialised hospital settings in Ghana.

Keywords: Occupational stress, mental health, anxiety, depression, burnout, healthcare workers, orthopaedic hospital, Ghana, GAD-7, PHQ-9

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Occupational stress has increasingly become a central concern in contemporary work environments due to its profound implications for employee well-being, productivity, and organizational performance (source). Within the healthcare sector, this issue is particularly acute Meng *et al.* (2023). Healthcare professionals, especially those in clinical and frontline roles, are continuously subjected to high work demands, critical decision-making under pressure, emotional strain, shift work, and frequent exposure to human suffering. These conditions can contribute significantly to psychological distress and the development of mental health disorders, including anxiety, depression, and burnout (Godwin, Alexander Suuk and Harrison Selorm, 2017; Woo *et al.* 2020; Zhu *et al.* 2023). The World Health Organization (WHO, 2022) defines occupational stress as the harmful physical and emotional responses that occur when job demands do not align with a worker's capabilities, resources, or needs. It has identified occupational stress as a global epidemic, reporting that healthcare workers are two to three times more likely to experience work-related mental health challenges than individuals in most other professions (WHO, 2022).

Globally, the burden of occupational stress among healthcare professionals is well-documented (Godwin, Alexander Suuk and Harrison Selorm, 2017; Woo *et al.* 2020; Zhu *et al.* 2023). Nurses often function as the backbone of patient care delivery, performing labor-intensive and emotionally demanding tasks under time constraints and with limited resources. A comprehensive meta-analysis by Meng *et al.* (2023), encompassing 94 studies across more than 30 countries, reported a global burnout prevalence of 30.3% among nurses, with higher rates observed in low- and middle-income countries (LMICs). Burnout, as described by Maslach and Jackson (1981),

manifests in three key dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment. In the years following the COVID-19 pandemic, these symptoms have intensified due to rising workloads, extended shifts, and persistent staffing shortages (Woo *et al.* 2020; Zhu *et al.* 2023).

The situation in high-income countries illustrates the universality of the issue. For example, the NHS Staff Survey in the United Kingdom reported that 73.75% of healthcare workers experienced unrealistic time pressures, while only 32.4% believed they had adequate staffing to carry out their responsibilities effectively (CSP, 2023). In the United States, Shah et al. (2021), using data from the National Sample Survey of Registered Nurses, found that approximately 31.5% of nurses who left the profession cited burnout as the primary reason. Key contributing factors included long working hours, especially shifts extending beyond 12 hours, and employment in high-stress hospital environments. These findings highlight how even well-resourced healthcare systems struggle with the mental toll of clinical work, underscoring the need for systemic reform and targeted mental health interventions.

In LMICs, however, the effects of occupational stress are magnified by additional structural limitations such as underfunded health systems, high patient-to-staff ratios, poor working conditions, and inadequate access to psychological support services. In Nigeria, Okwaraji and Aguwa (2016) found that among nurses in tertiary hospitals, 42.9% experienced emotional exhaustion, 47.6% suffered from depersonalization, and 53.8% reported low levels of personal accomplishment. Similarly, Udho and Kabunga (2022), studying nurses in northern Uganda, reported that 49.1% of participants exhibited high levels of burnout, largely driven by excessive workloads and a lack of supervisory support. Ethiopia also presents alarming statistics. A systematic review and meta-analysis by Hailay et al. (2020) estimated a national burnout

prevalence of 39% among Ethiopian nurses. Contributing factors included inadequate rest, low education levels, long work hours, and limited access to social support structures.

In the Ghanaian context, although research on occupational stress among healthcare professionals is not yet as robust, existing studies reveal significant concerns. A cross-sectional study by Odonkor and Frimpong (2020) involving 365 health professionals across 12 facilities in Accra found that 9.9% of participants were experiencing clinical burnout, with nurses reporting the highest levels. The study identified associations between burnout and demographic factors such as age, marital status, gender, educational attainment, and years of service. Further evidence from Opoku et al. (2022) in a tertiary hospital in Kumasi showed that 10.1% of nurses experienced high emotional exhaustion, 24.0% faced depersonalization, and 56.3% suffered from diminished personal accomplishment. Alarmingly, nearly half (49.3%) of the participants indicated an intention to leave the profession, primarily due to burnout-related dissatisfaction.

Additional insights from (Kaburi *et al.* 2019) at Salaga Government Hospital highlighted specific occupational stressors such as manual patient lifting, high risk of infection, lack of professional feedback, and limited career development opportunities. These stressors were found to correlate strongly with increased absenteeism, emotional fatigue, and reduced performance among nurses. Together, these findings suggest that Ghanaian nurses are exposed to stressors similar to those faced globally, though intensified by local challenges such as inadequate staffing and resource constraints.

Despite this growing evidence base, research into occupational stress in Ghana has largely focused on general or district hospitals. There is a noticeable lack of studies exploring how stress manifests in specialized healthcare institutions, where the nature of clinical care may present distinct psychological challenges. Facilities such as FOCOS Orthopaedic Hospital, which provide high-

intensity surgical and Orthopaedic care, represent a unique work environment. Healthcare providers in these settings often engage in complex, time-consuming procedures and must maintain high levels of clinical precision. These demands can contribute to occupational stress and burnout, particularly when organizational and emotional support systems are inadequate (Shanafelt *et al.* 2012). Yet, the occupational health experiences of staff in these specialized institutions remain under-researched in Ghana. The lack of empirical data on how staff at FOCOS Orthopaedic Hospital experience and manage occupational stress creates a critical gap in both academic and policy literature. Without such information, efforts to design effective, context-specific mental health interventions for specialized healthcare providers will remain inadequate. Understanding the nature and extent of occupational stress in this setting is therefore essential not only for improving worker well-being but also for enhancing staff retention, reducing absenteeism, and maintaining the quality of specialized patient care.

1.2 Problem Statement

Although substantial evidence confirms that occupational stress is a major contributor to mental health problems among healthcare professionals worldwide, existing research in Ghana remains heavily concentrated in general medical and public hospital contexts, leaving a significant gap in understanding how these dynamics unfold in specialized healthcare institutions. Numerous international studies have highlighted the high prevalence of burnout, emotional exhaustion, anxiety, and depression among healthcare workers due to chronic exposure to stressful working conditions (Godwin, Alexander Suuk and Harrison Selorm, 2017; Woo *et al.* 2020; Zhu *et al.* 2023). These problems are further compounded in low- and middle-income countries, where health systems often operate under resource constraints that exacerbate existing stressors.

In Ghana, recent research by (Özkan, 2022) and Opoku et al. (2022) has demonstrated concerning levels of burnout among nurses in public hospitals, with emotional exhaustion and a desire to leave the profession emerging as significant issues. Similarly, Godwin et al. (2017) identified key stressors such as physical workload, fear of infection, and lack of professional support among nurses in regional hospitals. While these findings are valuable, they are based on generalized healthcare environments and do not reflect the distinct characteristics and pressures of specialized facilities like FOCOS Orthopaedic Hospital.

Specialist hospitals, particularly those delivering advanced surgical and Orthopaedic care, present unique occupational environments that differ from those of general hospitals. Staff in such facilities are often required to manage complex surgeries, attend to chronically ill or post-trauma patients, and work extended hours under physically and emotionally taxing conditions (Ross *et al.* 2025). These roles demand high levels of precision, resilience, and emotional labor, often without adequate institutional structures to support mental health.

Occupational stress and its associated mental health outcomes, including burnout, anxiety, and depression, are widely reported among healthcare workers globally. Empirical studies have shown that high workload, long working hours, and emotional demands significantly contribute to psychological distress among healthcare professionals (Woo et al. 2020; Zhu et al. 2023). In Ghana, existing studies have also documented notable levels of occupational stress and burnout among healthcare workers, particularly nurses and frontline staff in general hospital settings (Odonkor and Frimpong, 2020; Opoku et al. 2022; Kaburi et al. 2019).

However, despite this growing body of evidence, a number of studies in Ghana have focused on general and public healthcare facilities, with limited attention to specialised healthcare institutions. This creates a critical gap in understanding how occupational stress affects staff in specialist

settings such as Orthopaedic hospitals, where work involves complex surgical procedures, prolonged operating hours, and high-risk clinical responsibilities (West et al. 2018; Chahal et al. 2025). This has implications for staff well-being, retention, and quality of healthcare delivery. Therefore, this study examines the sources of occupational stress and their relationship with mental health outcomes among staff at FOCOS Orthopaedic Hospital.

1.3 Rationale of the Study

Occupational stress among healthcare professionals has become a widespread concern, with numerous studies highlighting its adverse impact on mental health, staff retention, and the quality of patient care. Globally, healthcare workers are exposed to high job demands, long working hours, and emotionally taxing situations, leading to increased risks of anxiety, depression, and burnout. The World Health Organization (WHO) recognizes that psychosocial risks at work, such as excessive workloads and lack of support, can adversely affect mental health and recommends comprehensive strategies to mitigate these risks (WHO, 2024).

Recent studies have highlighted the neurological implications of prolonged work-related stress.

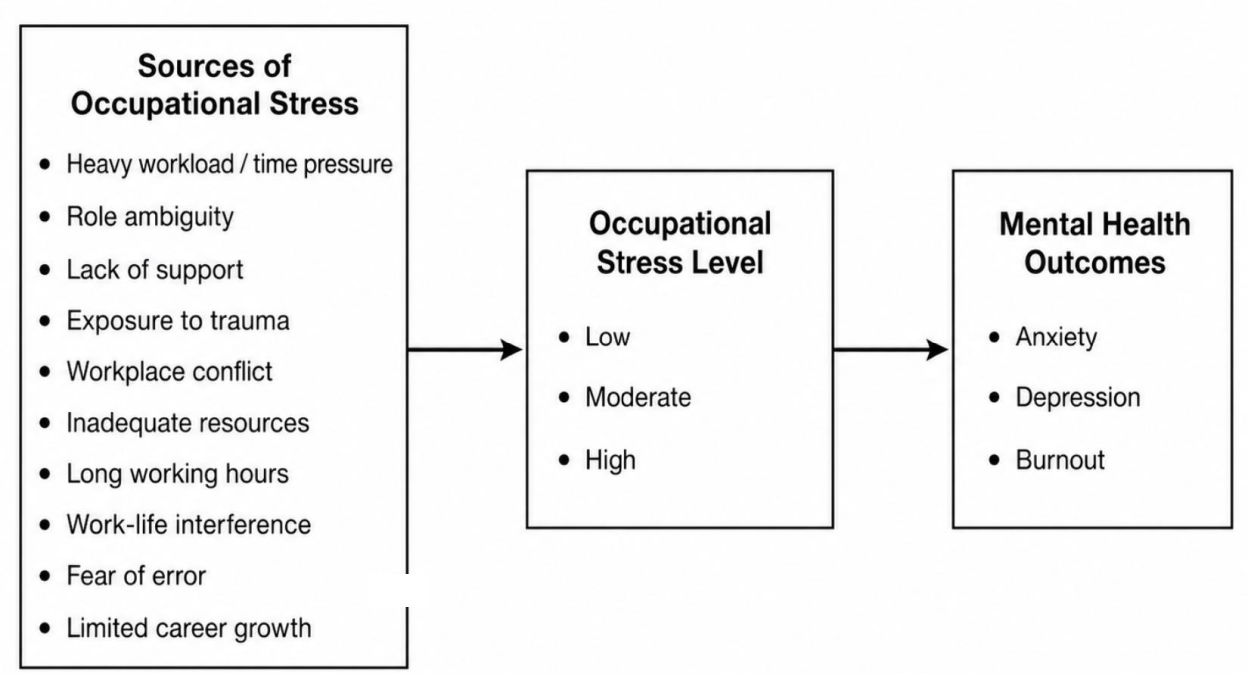
In Ghana, the issue of occupational stress among healthcare professionals is equally pressing. Research indicates that nurses and midwives in tertiary hospitals experience high levels of burnout, with factors such as inadequate staffing, lack of managerial support, and poor nurse-physician relationships contributing to emotional exhaustion (Poku, Donkor and Naab, 2020; Woo *et al.* 2020). Moreover, burnout among healthcare workers has been linked to decreased job satisfaction and increased intentions to leave the profession, further straining the healthcare system (Thankachen, Kabir and Sadath, 2025).

Despite these findings, there is a noticeable gap in research focusing on specialized healthcare institutions in Ghana, such as FOCOS Orthopaedic Hospital. Specialist hospitals present unique occupational environments, where staff manage complex surgical procedures and provide care for chronically ill or trauma patients. These roles demand high levels of precision and emotional resilience, often under conditions of extended work hours and limited institutional support.

Addressing this research gap is important because it provides context-specific evidence on occupational stress and mental health among staff in specialised healthcare settings. Such evidence will support hospital management and policymakers in designing targeted interventions, including workload management strategies, staff support systems, and workplace mental health programmes tailored to the needs of staff at FOCOS Orthopaedic Hospital.

In addition, improving the mental well-being of healthcare workers is critical for reducing burnout, enhancing staff retention, and maintaining the quality and safety of patient care. By identifying key stressors and their effects, this study contributes to efforts aimed at strengthening workforce stability and improving overall healthcare service delivery in specialised hospital settings.

1.4 Conceptual Framework



Source: (Demerouti et al. 2001)

The conceptual framework guiding this study is rooted in the Job Demand-Resources (JD-R) Model (Demerouti et al. 2001) and is complemented by elements from the Transactional Model of Stress and Coping (Lazarus & Folkman, 1984). These frameworks provide a robust lens for examining how occupational stressors affect mental health outcomes, particularly within specialized healthcare settings such as FOCOS Orthopaedic Hospital.

According to the JD-R Model, job demands refer to those physical, psychological, social, or organizational aspects of the job that require sustained effort and are associated with physiological and psychological costs. These include factors such as high workload, time pressure, emotional demands, shift work, and role ambiguity. When job demands exceed the individual's coping capacity, they may lead to stress and mental health issues such as burnout, anxiety, and depression (Bakker & Demerouti, 2007; Maslach & Jackson, 1981).

In contrast, job resources refer to those physical, psychological, social, or organizational factors that help reduce job demands, assist in achieving work goals, and promote personal growth and resilience. These include social support, autonomy, career development opportunities, and access to psychological services. When job resources are insufficient or poorly managed, the negative effects of job demands become more pronounced (Schaufeli & Taris, 2014).

The Transactional Model of Stress and Coping further explains that stress arises not only from the presence of demanding conditions but also from an individual's appraisal of these conditions and their perceived ability to cope. When healthcare workers perceive that job demands outweigh available coping resources, the likelihood of psychological distress increases (Lazarus & Folkman, 1984).

In the context of FOCOS Orthopaedic Hospital, a specialized institution dealing with complex surgical procedures and long-term Orthopaedic care, staff are subjected to high-intensity tasks, long working hours, and frequent exposure to patient trauma. These factors can lead to elevated stress levels and contribute to adverse mental health outcomes (Shanafelt et al. 2012; Opoku et al. 2022).

The conceptual framework for this study posits that occupational stressors (e.g., workload, time pressure, emotional demands) are the independent variables, while mental health outcomes (e.g., burnout, anxiety, depression) are the dependent variables. Moderating factors such as age, gender, years of experience, and educational level may influence the strength and direction of the relationship between stress and mental health.

This framework will guide the identification of specific stressors experienced by healthcare staff, assess their mental health status, and determine how these variables interact within the institutional context of a specialized healthcare facility.

1.5 Research Questions

1. What are the main sources of occupational stress among staff at FOCOS Orthopaedic Hospital?
2. What are the levels and severity of mental health symptoms (anxiety, depression, and burnout) among the hospital staff?
3. What is the relationship between occupational stress and mental health outcomes among staff?

1.6 General Objective

To examine the impact of occupational stress on the mental health of staff at FOCOS Orthopaedic Hospital.

1.6.1 Specific Objectives

1. To identify the main sources of occupational stress among staff at FOCOS Orthopaedic Hospital.
2. To assess the levels and severity of mental health symptoms (anxiety, depression, and burnout) among staff at FOCOS Orthopaedic Hospital.
3. To determine the relationship between levels of occupational stress and mental health outcomes among staff.

1.7 Profile of the Study Area

FOCOS Orthopaedic Hospital is a specialized medical facility located at 8 Teshie Street, Pantang, in the Greater Accra Region of Ghana. Established in 2012, the hospital was founded by Dr. Oheneba Boachie-Adjei, a globally renowned Orthopaedic surgeon, under the auspices of the Foundation of Orthopaedics and Complex Spine (FOCOS), a non-profit organization initiated in 1998. The primary mission of FOCOS is to provide comprehensive, affordable Orthopaedic and spine care to underserved populations in Ghana and the broader West African region (HSS, 2012; FOCOS, 2025).

The hospital boasts a 60-bed capacity and is equipped with state-of-the-art medical facilities, including two operating theaters, a recovery room, a physiotherapy center, an orthotics lab, and advanced imaging services such as MRI and radiology. These facilities enable the hospital to offer a wide range of services, including complex spine surgeries, joint replacements, pediatric Orthopaedic interventions, and rehabilitative care (FOCOS, 2025).

FOCOS Orthopaedic Hospital operates with a multidisciplinary team of healthcare professionals, including Orthopaedic surgeons, anesthesiologists, nurses, physiotherapists, and support staff. The hospital's commitment to excellence is reflected in its holistic approach to patient care, encompassing pre-operative evaluation, surgical intervention, post-operative rehabilitation, and continuous follow-up (FOCOS, 2025).

Beyond clinical services, FOCOS is actively involved in medical education and research. The hospital serves as a training ground for local and international medical professionals, fostering knowledge exchange and capacity building in Orthopaedic and spine care. Additionally, FOCOS engages in community outreach programs aimed at raising awareness about musculoskeletal health and providing screening services to remote and underserved communities (FOCOS, 2025).

The demanding nature of work at FOCOS, characterized by high patient volumes, complex surgical procedures, and the need for continuous professional development, places significant physical and emotional demands on its staff. Healthcare workers are often required to work extended hours under high-pressure conditions, which can contribute to occupational stress and impact their mental health. Understanding the specific stressors and mental health challenges faced by staff in such specialized settings is crucial for developing targeted interventions to support their well-being.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction to the Literature Review

This chapter reviews relevant literature on occupational stress and mental health among healthcare workers to provide a theoretical and empirical foundation for the study. The review synthesises key concepts, theoretical frameworks, and existing empirical evidence to situate the current study within the broader body of knowledge on work-related stress and psychological wellbeing in healthcare settings. Specifically, the chapter examines the concepts of occupational stress, mental health, burnout, anxiety and depression; reviews theoretical models explaining how occupational stress affects mental health; and highlights key empirical findings from global, low- and middle-income country, and Ghanaian contexts.

The literature review is guided by the study objectives, which seek to identify sources of occupational stress among staff at FOCOS Orthopaedic Hospital, assess the levels and severity of mental health symptoms, and examine the relationship between occupational stress and mental health. The review also aligns with the conceptual framework underpinning the study, which draws on the Job Demands–Resources (JD-R) Model and the Transactional Model of Stress and Coping. By critically reviewing existing literature, this chapter identifies gaps in current knowledge, particularly the limited evidence from specialised healthcare institutions in Ghana, thereby justifying the focus of the present study.

2.2 Conceptual Review

2.2.1 Concept of Occupational Stress

Occupational stress, also referred to as work-related stress, is commonly defined as the harmful physical and emotional responses that occur when job demands exceed a worker's ability to cope with those demands or when there is a mismatch between job requirements and an individual's resources, capabilities, or needs (WHO, 2024). Occupational stress arises from sustained exposure to adverse working conditions and psychosocial risks such as excessive workload, time pressure, inadequate resources, role ambiguity, poor supervision, job insecurity, and exposure to traumatic events. In healthcare settings, occupational stress is particularly pronounced due to the emotionally demanding nature of patient care, long working hours, shift work, high responsibility for patient outcomes, and frequent exposure to suffering and death.

The healthcare work environment is characterised by high cognitive, emotional, and physical demands associated with patient care and clinical decision-making (Aiken et al. 2023; Galanis et al. 2021). Clinical staff are required to make rapid, high-stakes decisions, manage complex patient needs, and maintain professional composure under pressure, which contributes to the demanding nature of healthcare work (West et al. 2018; Woo et al. 2020). These demands are often compounded by systemic constraints such as staff shortages, limited equipment, and organisational inefficiencies, particularly in low- and middle-income countries. Evidence from global and Low- and Middle-Income Countries contexts shows that persistent exposure to such stressors contributes to chronic occupational stress, which may progress to burnout and other adverse mental health outcomes if not adequately managed (Galanis et al. 2021; Ryan et al. 2023). High workload, long working hours, and high responsibility for patient outcomes have been identified as important

contributors to burnout and occupational stress among physicians (West et al. 2018; Aiken et al. 2023).

Occupational stress is therefore conceptualised in this study as a multidimensional construct encompassing organisational, job-related, and psychosocial stressors experienced by healthcare workers in the course of their professional duties. These stressors form the primary exposure of interest and are examined in relation to mental health outcomes among staff at FOCOS Orthopaedic Hospital.

2.2.2 Concept of Mental Health in the Workplace

Mental health is defined by the World Health Organization as a state of well-being in which individuals realise their abilities, can cope with normal stresses of life, work productively, and contribute meaningfully to their communities (WHO, 2024). In the workplace context, mental health refers not only to the absence of mental illness but also to the presence of psychological wellbeing, resilience, and the capacity to manage work-related stressors effectively. Poor workplace mental health may manifest as emotional distress, reduced functioning, impaired decision-making, and diminished work performance.

Among healthcare workers, mental health challenges often arise from prolonged exposure to occupational stressors and emotionally demanding situations. Common mental health outcomes reported in healthcare settings include burnout, anxiety, and depression. These outcomes exist on a continuum, ranging from subclinical psychological distress to clinically significant mental health disorders. Work-related anxiety may manifest as persistent worry, restlessness, and difficulty concentrating, while depressive symptoms may include low mood, fatigue, sleep disturbances, reduced motivation, and feelings of hopelessness (Ryan et al. 2023; Teo et al. 2021).

The workplace plays a central role in shaping mental health outcomes. Organisational culture, leadership practices, workload management, availability of social support, and access to mental health resources can either mitigate or exacerbate psychological distress among workers. In healthcare institutions where staff are exposed to sustained high demands with limited organisational support, mental health outcomes tend to deteriorate over time, affecting both individual wellbeing and organisational performance (Aiken et al. 2023; Aust et al. 2024). In the context of specialised hospitals, where clinical demands are high and the emotional labour of care is substantial, workplace mental health assumes heightened importance for staff retention, patient safety, and quality of care delivery.

2.2.3 Burnout, Anxiety and Depression Among Healthcare Workers

Burnout is a work-related psychological syndrome resulting from chronic exposure to occupational stressors and is characterised by three core dimensions: emotional exhaustion, depersonalisation, and reduced personal accomplishment (World Health Organization, 2019). Emotional exhaustion refers to feelings of being emotionally overextended and depleted of emotional resources; depersonalisation reflects the development of negative, cynical or detached attitudes towards patients; and reduced personal accomplishment involves feelings of ineffectiveness and reduced professional efficacy. Burnout is particularly prevalent among healthcare workers due to the emotionally intensive nature of caregiving, high workload, and prolonged exposure to suffering and trauma (Galanis et al. 2021; Meng et al. 2023).

Anxiety and depression are also common mental health outcomes associated with occupational stress in healthcare settings. Anxiety among healthcare workers may be driven by fear of making clinical errors, high responsibility for patient outcomes, time pressures, and uncertainty in complex clinical environments. Depression may result from sustained emotional strain, perceived lack of

control, limited organisational support, and chronic fatigue. These mental health conditions can co-occur with burnout, compounding functional impairment and increasing the risk of absenteeism, reduced productivity, and intention to leave the profession (Ryan et al. 2023; Osei et al. 2024).

While the preceding section clarified the key concepts related to occupational stress and mental health outcomes among healthcare workers, understanding how these factors interact requires an appropriate theoretical framework. Theoretical models provide structured explanations of the mechanisms through which occupational stressors influence psychological wellbeing and help guide the identification of relevant variables for empirical investigation. The following section therefore reviews the major theoretical perspectives that inform this study.

2.3 Empirical Review

2.3.1 Global Evidence on Occupational Stress and Mental Health Among Healthcare Workers

Globally, a substantial body of empirical evidence demonstrates high levels of occupational stress and adverse mental health outcomes among healthcare workers. Systematic reviews and meta-analyses indicate that burnout is widespread in healthcare professions, particularly among nurses and physicians. Woo et al. (2020) reported a high global prevalence of burnout symptoms among nurses, with emotional exhaustion being the most commonly reported dimension. Similarly, a large meta-analysis by Meng et al. (2023), drawing on 94 studies across more than 30 countries, estimated the pooled prevalence of nursing burnout at approximately 30.3%, with consistently higher rates observed in settings characterised by high workload and staffing constraints. These findings suggest that occupational stress is a pervasive phenomenon in healthcare systems worldwide.

Mental health outcomes beyond burnout are also well documented. A systematic review and meta-analysis by Zhu et al. (2023) found elevated levels of anxiety and depressive symptoms among healthcare workers, particularly during periods of heightened system pressure such as the COVID-19 pandemic. Studies using validated screening tools similar to those adopted in the present study, including instruments analogous to the GAD-7 and PHQ-9, report that a substantial proportion of healthcare workers experience clinically relevant symptoms of anxiety and depression (Teo et al. 2021; Zhu et al. 2023). These mental health challenges are strongly associated with excessive workload, long working hours, emotional labour, fear of making clinical errors, and exposure to patient suffering.

Evidence from high-income settings further illustrates the magnitude of the problem. In the United States, Shah et al. (2021), using nationally representative data, found that approximately one-third of nurses who left the profession cited burnout as a primary reason, with long working hours and stressful hospital environments identified as key drivers. A large multisite survey by Aiken et al. (2023) across 60 US hospitals similarly found that 47% of nurses and 32% of physicians reported high burnout, with poor staffing and unfavourable work environments strongly associated with clinician turnover and adverse patient safety ratings. Studies from the United Kingdom also report high levels of work-related pressure, staffing challenges, and psychological stress among healthcare workers (Søvold et al. 2021). Collectively, these findings demonstrate that occupational stress and its mental health consequences are not confined to resource-poor settings but represent a global occupational health challenge across diverse healthcare systems.

2.3.2 Evidence from Low- and Middle-Income Countries (LMICs)

In low- and middle-income countries, the burden of occupational stress and adverse mental health outcomes among healthcare workers is often amplified by systemic constraints such as limited

resources, high patient-to-staff ratios, inadequate infrastructure, and restricted access to psychosocial support services. Empirical studies from sub-Saharan Africa consistently report high levels of burnout and psychological distress among healthcare professionals.

In Nigeria, Okwaraji and Aguwa (2016) reported high levels of emotional exhaustion, depersonalisation, and reduced personal accomplishment among nurses in a tertiary health institution, reflecting the multidimensional nature of burnout. Similarly, in northern Uganda, Udho and Kabunga (2022) found that nearly half of hospital-based nurses experienced high levels of burnout, with workload pressure and limited supervisory support emerging as significant predictors. A systematic review and meta-analysis from Ethiopia estimated the pooled prevalence of burnout among nurses at 39%, with contributing factors including long working hours, inadequate rest, limited social support, and constrained working conditions (Hailay et al. 2020).

Mental health outcomes such as anxiety and depression are also prevalent in LMIC healthcare settings. Studies using validated symptom-based measures analogous to the GAD-7 and PHQ-9 indicate high levels of psychological distress linked to occupational stressors such as fear of infection, role overload, and emotional labour. These mental health challenges are often compounded by limited institutional support and stigma surrounding mental health care in workplace settings. The LMIC evidence underscores the importance of organisational and systemic factors in shaping occupational stress and mental health outcomes, reinforcing the relevance of the Job Demands–Resources framework in resource-constrained healthcare environments.

2.3.3 Evidence from Ghana

In Ghana, empirical evidence indicates that occupational stress and burnout are prevalent among healthcare workers, particularly nurses and frontline staff in public and tertiary hospitals. Odonkor

and Frimpong (2020), in a multi-facility study in Accra, reported notable levels of burnout among healthcare professionals, with nurses experiencing the highest levels of emotional exhaustion. The study identified associations between burnout and demographic as well as work-related factors, including years of service and workload intensity. Similarly, Opoku et al. (2022) found that a significant proportion of nurses in a tertiary hospital in Kumasi experienced emotional exhaustion and depersonalisation, with more than half reporting low personal accomplishment. Importantly, nearly half of respondents indicated an intention to leave the profession, linking burnout directly to workforce instability in Ghana's health sector.

Occupational stressors in Ghanaian healthcare settings have been empirically linked to adverse mental health outcomes. Kaburi et al. (2019) identified high workload, manual patient handling, fear of infection, and limited professional feedback as significant predictors of occupational stress among nurses at Salaga Government Hospital. These stressors were associated with emotional fatigue and reduced work performance. Poku, Donkor and Naab (2020) further demonstrated that organisational factors such as inadequate staffing and strained professional relationships were key determinants of emotional exhaustion among nurses in urban Ghana.

Although most Ghanaian studies focus primarily on burnout, available evidence suggests that anxiety and depressive symptoms are also common among healthcare workers exposed to chronic occupational stress. Kodom et al. (2026) conducted a focused ethnographic study at a district hospital in Ghana and found that nurses experienced significant psychological hazards including anxiety, grief, fear, and fatigue driven by occupational exposures such as patient deaths, shift-work maladaptation, and emotional labour demands. Furthermore, Osei et al. (2024) found that burnout significantly predicted intention to leave the health profession among Ghanaian health workers, with career dissatisfaction compounding psychological strain. The pattern of findings from Ghana

aligns with international evidence showing that sustained exposure to high job demands in the absence of adequate organisational support is associated with poor mental health outcomes. However, existing Ghanaian studies are largely concentrated in general hospitals and public healthcare facilities, with limited empirical attention to specialised healthcare institutions.

2.3.4 Occupational Stress and Mental Health in Specialist and Surgical Healthcare Settings

Specialist healthcare settings, particularly surgical and Orthopaedic environments, present unique occupational stressors that distinguish them from general medical contexts due to the complexity of procedures, prolonged operating hours, and responsibility for high-risk clinical outcomes (Chahal et al. 2025; West et al. 2018). These settings are characterised by high procedural complexity, long operating hours, time-sensitive decision-making, and frequent exposure to trauma and critically ill patients. Empirical studies indicate that healthcare workers in surgical specialties experience elevated levels of occupational stress and burnout. A systematic review by Chahal et al. (2025) reported high levels of burnout among Orthopaedic surgeons, largely associated with demanding workloads, long surgical procedures, and high responsibility for patient outcomes.

More recent evidence focusing on Orthopaedic and surgical professionals highlights the cumulative psychological toll of prolonged exposure to physically demanding procedures and emotionally charged clinical encounters. These stressors may also affect other healthcare professionals working within specialist surgical institutions, including nurses, anaesthetists, physiotherapists, and support staff who are exposed to demanding clinical environments and high emotional labour (Teo et al. 2021; Ryan et al. 2023).

Despite this emerging evidence, empirical research on occupational stress and mental health in specialist healthcare institutions within Ghana remains scarce. The majority of Ghanaian studies

focus on general hospitals and primary care facilities, leaving a critical gap in understanding how occupational stress manifests in specialised environments such as Orthopaedic hospitals. Given the intensity of clinical demands, emotional labour associated with trauma and chronic disability care, and extended work schedules in specialist settings, it is plausible that staff in such institutions face distinct stress profiles and mental health risks. The limited empirical attention to specialist hospitals in Ghana constrains the development of context-specific workplace mental health interventions and organisational support strategies.

2.3.5 Implications of Empirical Evidence for the Current Study

The reviewed empirical literature demonstrates consistent associations between occupational stress and adverse mental health outcomes, including burnout, anxiety, and depression, across global, LMIC, and Ghanaian healthcare settings. The widespread use of symptom-based screening tools analogous to the GAD-7 and PHQ-9 in international studies provides methodological support for their application in the present study to assess anxiety and depressive symptoms among staff at FOCOS Orthopaedic Hospital. Similarly, the extensive use of burnout dimensions emotional exhaustion, depersonalisation, and reduced personal accomplishment in empirical research validates the focus on burnout as a key outcome of occupational stress in healthcare environments.

The paucity of Ghana-specific empirical evidence from specialised healthcare institutions highlights a critical knowledge gap that the present study seeks to address. By focusing on staff at FOCOS Orthopaedic Hospital, this study contributes novel, context-specific evidence on occupational stress and mental health in a specialised surgical environment. The findings are expected to inform institutional policies and workplace mental health interventions tailored to the unique demands of specialist healthcare settings in Ghana.

2.4 Determinants of Occupational Stress and Mental Health Outcomes among Healthcare Workers

Empirical literature demonstrates that occupational stress and mental health outcomes among healthcare workers are shaped by an interaction of individual-level characteristics, job-related demands, organisational factors, and available protective resources (Bakker & Demerouti, 2017; Singh et al. 2020). This multi-level understanding aligns with the Job Demands–Resources (JD-R) Model and the Transactional Model of Stress and Coping, which jointly emphasise the role of environmental demands, organisational resources, and individual appraisal and coping processes in shaping psychological wellbeing.

2.4.1 Individual-Level Determinants

Individual characteristics such as age, gender, professional cadre, and years of work experience have been shown to influence vulnerability to occupational stress and adverse mental health outcomes. Younger healthcare workers and those with fewer years of professional experience often report higher levels of stress and burnout, possibly due to lower adaptive capacity and limited coping skills in high-pressure clinical environments (Odonkor and Frimpong, 2020; Opoku et al. 2022). Gender differences in stress exposure and mental health outcomes have also been reported, with female healthcare workers frequently exhibiting higher levels of emotional exhaustion, anxiety, and depressive symptoms, reflecting both occupational demands and broader gendered social roles (Galanis et al. 2021; Kodom et al. 2026).

Professional role further shapes stress exposure. Nurses and frontline clinical staff, who engage in continuous patient contact and emotional labour, consistently report higher burnout and psychological distress compared to non-clinical staff and some physician groups (Aiken et al. 2023; Yu et al. 2019). In specialist healthcare settings, such as Orthopaedic hospitals, the technical complexity of clinical tasks and the emotional burden associated with trauma and chronic disability

care may further heighten vulnerability among clinical cadres. Individual appraisal processes, as highlighted in the Transactional Model of Stress and Coping, mediate how healthcare workers interpret and respond to these stressors, thereby influencing the likelihood of experiencing anxiety, depression, or burnout.

2.4.2 Job-Related and Organisational Determinants

Job-related and organisational factors constitute the most consistently reported determinants of occupational stress and mental health outcomes among healthcare workers. High workload, long working hours, time pressure, and shift work are repeatedly identified as primary contributors to emotional exhaustion and psychological distress (Aiken et al. 2023; Galanis et al. 2021). In resource-constrained settings, high patient-to-staff ratios intensify these demands, reducing opportunities for recovery and increasing cumulative stress exposure.

Organisational conditions such as inadequate staffing, limited access to equipment, poor supervisory support, role ambiguity, and strained professional relationships further exacerbate occupational stress (Kaburi et al. 2019; Poku, Donkor and Naab, 2020). Exposure to traumatic clinical events, fear of making medical errors, and concerns about patient safety have also been associated with elevated anxiety and depressive symptoms among healthcare workers (Ryan et al. 2023; Teo et al. 2021). In specialist surgical environments, prolonged operating hours, high procedural complexity, and responsibility for high-risk clinical outcomes contribute to heightened stress and burnout (West et al. 2018).

Within the JD-R framework, these job-related and organisational stressors are conceptualised as job demands that, when persistent and poorly balanced by adequate job resources, increase the likelihood of burnout, anxiety, and depression. This theoretical framing is particularly relevant to

specialised hospitals such as FOCOS Orthopaedic Hospital, where clinical demands are inherently high and organisational support systems play a critical role in buffering psychological strain.

2.4.3 Protective Factors and Coping Resources

Protective factors and coping resources play a central moderating role in shaping the relationship between occupational stress and mental health outcomes. Organisational resources such as supportive leadership, positive collegial relationships, opportunities for professional development, autonomy in clinical decision-making, and access to psychosocial support services have been shown to buffer the negative effects of high job demands (Bakker & Demerouti, 2017; Singh et al. 2020). Healthcare workers who perceive strong supervisory and peer support report lower levels of burnout and psychological distress, even in high-pressure work environments (Yu et al. 2019; Aust et al. 2024).

At the individual level, adaptive coping strategies, resilience, and perceived self-efficacy influence how healthcare workers appraise and respond to occupational stressors. According to the Transactional Model of Stress and Coping, individuals who perceive that they possess adequate coping resources are less likely to experience sustained psychological distress when exposed to demanding work conditions (Folkman, 2022). Conversely, limited coping capacity and low perceived control over work conditions are associated with higher levels of anxiety, depressive symptoms, and emotional exhaustion. The availability and utilisation of mental health services within healthcare institutions further influence mental health outcomes by facilitating early identification and management of stress-related symptoms among healthcare workers (WHO, 2024; Aust et al. 2024).

2.4.4 Link to the Conceptual Framework and Study Variables

The determinants identified in the literature align directly with the conceptual framework guiding the present study. Job-related and organisational stressors (e.g., workload, time pressure, emotional demands, resource constraints) represent key job demands, while supportive leadership, collegial support, and access to mental health services constitute critical job resources within the JD-R model. Individual characteristics and coping capacities reflect the appraisal and coping processes emphasised in the Transactional Model of Stress and Coping. Mental health outcomes, operationalised in this study as burnout, anxiety, and depression, represent the psychological consequences of sustained exposure to high demands in the context of limited resources.

This theoretical alignment informs the selection of study variables and measurement tools in Chapter Three. Occupational stressors are measured as exposure variables, while mental health outcomes are assessed using validated screening instruments aligned with anxiety (GAD-7), depression (PHQ-9), and burnout dimensions. Sociodemographic and professional characteristics are examined as potential moderating factors influencing the strength and direction of the relationship between occupational stress and mental health outcomes among staff at FOCOS Orthopaedic Hospital.

2.5 Summary and Research Gaps

The reviewed literature demonstrates that occupational stress is a significant determinant of adverse mental health outcomes among healthcare workers across different healthcare systems. Studies from high-income countries, low- and middle-income countries (LMICs), and Ghana consistently show that high job demands such as excessive workload, long working hours, emotional labour, and exposure to traumatic clinical situations are strongly associated with burnout, anxiety, and depressive symptoms among healthcare professionals. These findings are

consistent with the Job Demands–Resources (JD-R) Model, which explains how sustained job demands combined with limited job resources contribute to psychological distress among workers.

The literature further highlights the critical role of organisational factors in shaping mental health outcomes among healthcare workers. Factors such as staffing adequacy, supervisory support, workplace culture, and access to mental health services can either mitigate or exacerbate occupational stress. Evidence from LMICs indicates that structural challenges including high patient-to-staff ratios, limited resources, and constrained healthcare infrastructure intensify occupational stress and increase the risk of burnout and other mental health problems.

Despite the growing body of research on occupational stress among healthcare workers, several gaps remain in the literature. First, most Ghanaian studies have focused on general hospitals and primary healthcare facilities, with limited attention given to specialised healthcare institutions such as Orthopaedic or surgical hospitals. Second, many studies emphasise burnout while giving relatively little attention to other important mental health outcomes such as anxiety and depression. Third, some studies do not explicitly apply established theoretical frameworks such as the Job Demands–Resources Model or the Transactional Model of Stress and Coping to guide analysis and interpretation. Finally, limited facility-specific research exists to inform targeted organisational interventions within individual healthcare institutions.

This study therefore seeks to address these gaps by examining occupational stress and mental health outcomes among staff at FOCOS Orthopaedic Hospital.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Design

This study employed a quantitative cross-sectional design to examine the relationship between occupational stress and mental health among staff at FOCOS Orthopaedic Hospital. The cross-sectional approach was appropriate for collecting data at a single point in time, allowing for the efficient assessment of stress levels and mental health indicators within the hospital context. This design was cost-effective and logistically feasible for workplace-based research.

3.2 Study Site

The study was conducted at FOCOS Orthopaedic Hospital, located at 8 Teshie Street, Pantang, in the Greater Accra Region of Ghana. The hospital is a specialized tertiary facility focused on Orthopaedic and spine care and serves patients from across Ghana. Its staff includes a multidisciplinary team of healthcare professionals such as Orthopaedic surgeons, anesthetists, nurses, physiotherapists, and administrative support staff. The hospital environment is characterized by high patient volumes, complex procedures, and intensive workloads, making it a suitable site for studying occupational stress and mental health.

3.3 Study Population

The study population comprised all categories of healthcare and administrative staff employed at FOCOS Orthopaedic Hospital during the study period. This includes clinicians and non-clinicians who are actively engaged in service delivery, patient care, and hospital operations. The inclusion of various staff cadres ensured a holistic understanding of stressors across the institution.

3.4 Inclusion Criteria

The study included all categories of staff currently employed at FOCOS Orthopaedic Hospital who had worked at the facility for at least six months prior to the start of data collection. Eligible participants were required to provide informed consent and be able to complete a structured questionnaire. Both clinical and non-clinical staff were considered for inclusion to ensure diverse representation across departments.

3.5 Exclusion Criteria

Staff who were on leave during the data collection period or who had worked at the hospital for less than six months were excluded. This was to ensure that participants had adequate experience within the work environment to provide meaningful responses related to occupational stress.

3.6 Sample Size

The sample size was determined using Yamane's formula for a known population size. At the time of data collection, the total staff strength of FOCOS Orthopaedic Hospital was confirmed to be 350, as verified through the hospital's human resources records. Yamane's formula was therefore appropriate, as it is designed for studies with a known and finite population size.

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

Where:

- n = sample size
- N = estimated population size of staff (350)
- e = margin of error (0.05)

$$n = \frac{350}{1 + 350(0.05)^2} = 187$$

To account for non-response or incomplete responses, a 10% adjustment will be made:

187+(0.10×187) = 206

Thus, a total of 206 staff members were targeted for inclusion in the study.

3.7 Sampling Procedure

A stratified random sampling method was employed. Staff were grouped into professional categories (e.g., nurses, doctors, physiotherapists, administrative staff), and participants were randomly selected from each stratum to ensure proportionate representation. This approach enhanced the validity of the findings by capturing perspectives from all relevant staff groups.

3.8 Data Collection Methods and Instruments

Data for this study were collected using a structured, self-administered questionnaire developed specifically to assess the impact of occupational stress on the mental health of staff at FOCOS Orthopaedic Hospital. The questionnaire was grounded in validated tools commonly used in occupational health and psychological research, with components adapted from the Generalized Anxiety Disorder Scale (GAD-7) and the Patient Health Questionnaire (PHQ-9). These instruments have been widely used in healthcare settings and are reliable for measuring stress-related outcomes among professional staff.

The questionnaire was organized into four main sections. Section A gathered demographic data including age, gender, job role, years of service, and work schedule. Section B assessed sources of occupational stress. Section C evaluated mental health symptoms experienced over the past month, focusing on indicators of anxiety and depression. Seven items adapted from the GAD-7 captured

symptoms such as nervousness, uncontrollable worrying, and irritability, while nine items from the PHQ-9 assessed experiences like sleep disturbances, fatigue, poor appetite, and thoughts of self-harm.

Section D focused on burnout symptoms. Burnout was assessed using a set of structured Likert-scale items designed to capture key dimensions such as emotional exhaustion, reduced personal accomplishment, and work-related fatigue. Responses were scored and aggregated to generate a composite burnout score, which was subsequently categorised into low, moderate, and high levels. These items were developed based on commonly used constructs in burnout literature, particularly those reflected in established frameworks such as the Maslach Burnout Inventory, but were adapted to suit the study context and ensure feasibility within the questionnaire.

The questionnaire was administered in English, the primary language of professional communication at FOCOS Orthopaedic Hospital. To ensure clarity and completeness, trained research assistants were available to offer explanations and guidance where necessary. Data were collected electronically using KoboCollect on secure, password-protected devices.

3.9 Pre-testing

The questionnaire was pre-tested among 20 staff members at the BOSS Medical Center. This pilot assessed the clarity, reliability, and relevance of the tool. Feedback from the pre-test guided adjustments to improve validity and flow.

3.10 Data Handling

Data were saved on a password-protected hard drive accessible only to the research team and project supervisor. All identifying information was excluded to maintain anonymity. Data were

stored securely for a period of five years, after which they were to be deleted in accordance with institutional policy.

3.11 Statistical Analysis

Quantitative data collected from the survey were exported and analyzed using STATA version 18. Descriptive statistics such as means, frequencies, and percentages were used to summarize participants' demographic characteristics and responses related to stress levels and mental health indicators. The 10 Likert-scale items in Section B were each scored on a scale of 1 to 5 (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always). A composite Stress Score was generated for each respondent by computing the arithmetic mean of all 10 items. No items were reverse-coded. The resulting score ranged from 1 to 5, with higher scores indicating greater perceived occupational stress. For the GAD-7 and PHQ-9, total scores were computed by summing all item responses as per standard scoring protocols. For inferential analysis, GAD-7 scores were dichotomised at a cut-off of ≥10 (indicating moderate-to-severe anxiety), and PHQ-9 scores were dichotomised at ≥10 (indicating moderate-to-severe depression), consistent with established clinical thresholds widely used in occupational health research. Burnout scores were dichotomised at a mean score of ≥3.0 (High burnout) versus <3.0 (Low burnout). These cut-offs were applied to increase statistical power in the chi-square and logistic regression analyses, as some categories in the full categorical distribution had small cell counts that would have violated the assumptions of these tests. Inferential statistical methods were employed to examine relationships between occupational stress and mental health outcomes. Further analysis using multivariate regression models helped determine the independent effect of occupational stress on mental health outcomes while controlling for potential confounding variables such as age, gender, job role, and years of

experience. The results of the analysis were presented in tables and graphs for clarity and ease of interpretation.

3.12 Dissemination of Results

Findings from this study will be submitted to the Ensign Global University Library, the Ghana Health Service, and management of FOCOS Orthopaedic Hospital. The study will also to be presented at local and national health forums and submitted for publication in a peer-reviewed academic journal. Summary reports will be made available to relevant stakeholders for programmatic planning and mental health advocacy.

3.13 Limitation of the Study

This study has some limitations. First, the cross-sectional design limits the ability to establish causal relationships between occupational stress and mental health outcomes. Second, the use of self-reported data may introduce response bias. Additionally, burnout was assessed using adapted items rather than a fully standardised instrument, which may affect measurement sensitivity. Finally, the study was conducted in a single specialised hospital, which may limit the generalisability of the findings.

3.14 Ethical Considerations

Ethical approval was sought from the Institutional Review Board (IRB) of Ensign Global College. A formal introduction letter was presented to FOCOS Orthopaedic Hospital administration to obtain institutional permission. Participation was voluntary, and written informed consent was obtained from all participants. The study posed minimal risk, and respondents were informed of their right to withdraw at any point without consequences. Anonymity and confidentiality were upheld throughout the research process.

While there were no direct benefits to participants, the study's findings contributed to workplace wellness initiatives and improved mental health support services at the facility.

CHAPTER FOUR

4.0 RESULTS

4.1 Demographic Characteristics

A total of 206 respondents participated in the study. The demographic characteristics are presented by age, gender, job role, work schedule, and years of service.

4.1.1 Age Distribution

The age distribution of respondents shows that the largest proportion were within the 40–49 years age group (29.13%), followed by those aged 20–29 years (24.27%). Respondents aged 50–59 years accounted for 23.79%, while those aged 30–39 years represented the smallest proportion (22.82%).

Table 4.1 Age Distribution

Variable	Category	Frequency (n)	Percentage (%)
Age group (years)	20–29	50	24.27
	30–39	47	22.82
	40–49	60	29.13
	50–59	49	23.79

4.1.2 Gender Distribution

In terms of gender, the majority of respondents were female (58.74%), while males constituted 41.26% of the sample. This suggests that females form the dominant workforce within the hospital, which is consistent with the gender distribution typically observed in healthcare settings.

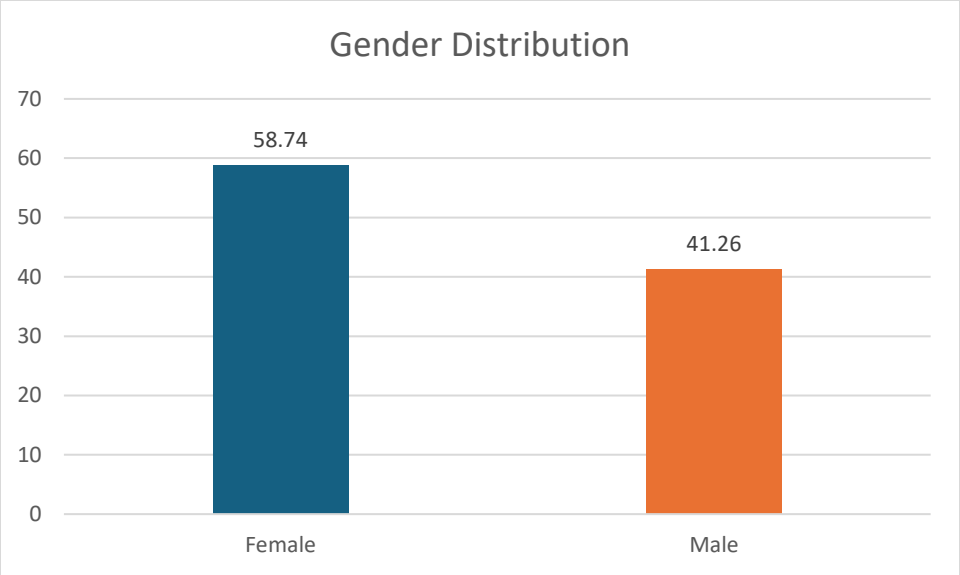


Figure 4.1 Gender Distribution

4.1.3 Job Role Distribution

Regarding job roles, nurses formed nearly half of the respondents (49.51%), making them the largest professional group in the study. Doctors accounted for 20.87%, physiotherapists 15.53%, and administrative staff 14.08%. This reflects the central role of nursing staff in healthcare service delivery within the facility.

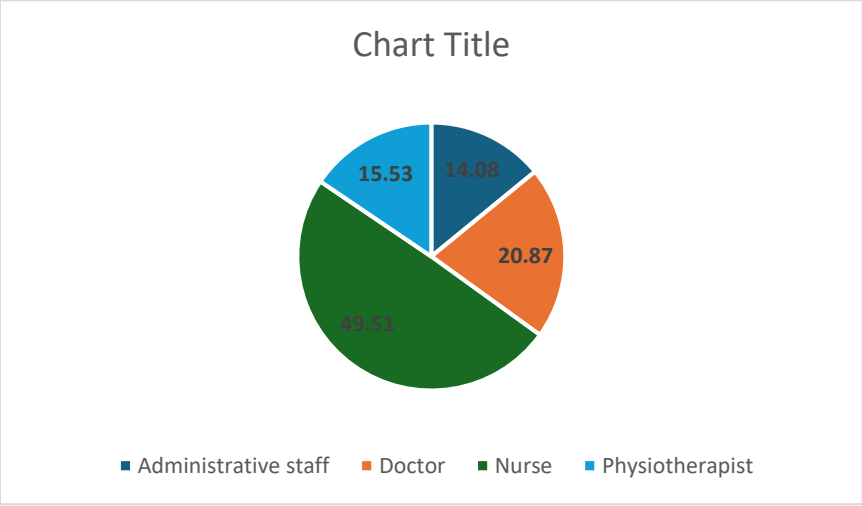


Figure 4.2 Job Role Distribution

4.1.4 Work Schedule

With respect to work schedule, the highest proportion of respondents reported working rotating shifts (39.81%), followed by day shifts (35.44%) and night shifts (24.76%). This indicates that a significant proportion of staff are exposed to varying work patterns, which may have implications for occupational stress.

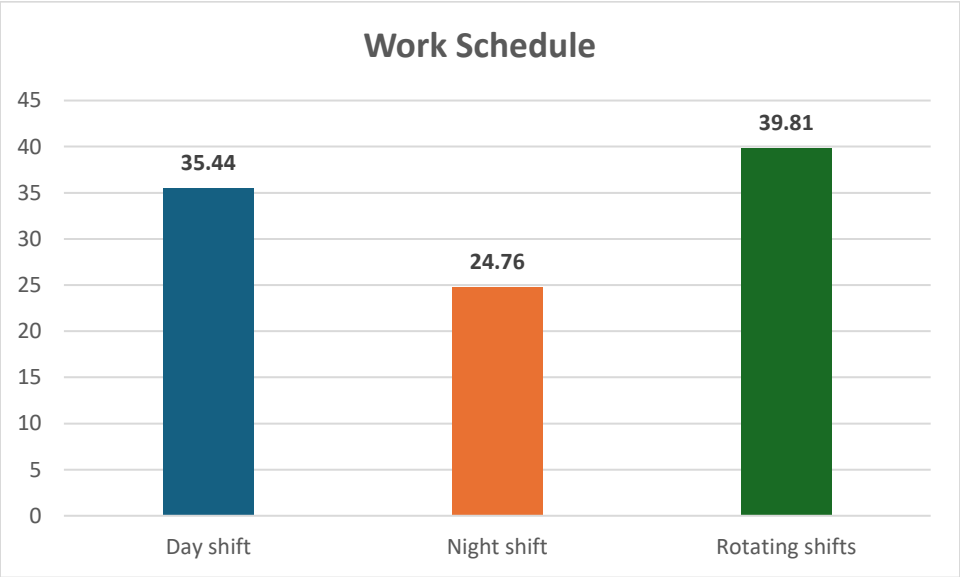


Figure 4.3 Work Schedule

4.1.5 Years of Service

In terms of years of service, respondents were fairly evenly distributed across categories. The largest proportions were those with 1–5 years (28.64%) and 11–15 years (28.16%) of experience. Those with 6–10 years accounted for 26.70%, while respondents with 16–20 years of experience formed the smallest group (16.50%).

Table 4.2 Years of Service

Variable	Category	Frequency (n)	Percentage (%)
Years of Service	1–5 years	59	28.64
	6–10 years	55	26.7
	11–15 years	58	28.16
	16–20 years	34	16.5

4.2 Main Sources of Occupational Stress Among Staff at FOCOS Orthopaedic Hospital

The findings indicate that multiple occupational stressors are commonly experienced among respondents, with varying levels of intensity. Heavy workload and time pressure were widely reported, with 25.24% of respondents indicating they always experience this stressor, while 39.32% reported experiencing it often or sometimes. Role ambiguity was also notable, with 27.67% reporting they always experience unclear job expectations, and over one-third indicating often or sometimes. Lack of support from supervisors or colleagues emerged as one of the most prominent stressors, with the highest proportion (34.47%) reporting always.

Exposure to traumatic or distressing events was commonly reported, with 20.87% indicating always and 49.52% reporting often or sometimes. Workplace conflict was also prevalent, with 28.64% of respondents reporting always, and a considerable proportion experiencing it regularly. Inadequate resources were frequently identified as a stressor, with 29.13% reporting always, indicating persistent logistical and infrastructural challenges. Long working hours were similarly reported, with 29.13% indicating always, and over half experiencing this stressor at least sometimes. Work-life interference was evident among respondents, with 24.27% reporting always,.

Fear of making errors affecting patients was one of the most pronounced stressors, with 30.58% reporting always. Limited career growth opportunities were also reported, with 26.70% indicating always.

Table 4.3 Main Sources of Occupational Stress Among Staff at FOCOS Orthopaedic Hospital

Variable	Category	Frequency (n)	Percentage (%)
Heavy workload / Time pressure	Never	32	15.53
	Rarely	41	19.9
	Sometimes	44	21.36
	Often	37	17.96
	Always	52	25.24
Role ambiguity	Never	22	10.68
	Rarely	53	25.73
	Sometimes	39	18.93
	Often	35	16.99
	Always	57	27.67
Lack of support	Never	22	10.68
	Rarely	41	19.9
	Sometimes	38	18.45
	Often	34	16.5
	Always	71	34.47
Exposure to trauma	Never	28	13.59
	Rarely	33	16.02
	Sometimes	40	19.42
	Often	62	30.1
	Always	43	20.87
Workplace conflict	Never	29	14.08
	Rarely	34	16.5
	Sometimes	43	20.87
	Often	41	19.9
	Always	59	28.64
Inadequate resources	Never	26	12.62
	Rarely	46	22.33
	Sometimes	33	16.02
	Often	41	19.9
	Always	60	29.13

Long working hours	Never	36	17.48
	Rarely	34	16.5
	Sometimes	39	18.93
	Often	37	17.96
	Always	60	29.13
Work-life interference	Never	31	15.05
	Rarely	34	16.5
	Sometimes	46	22.33
	Often	45	21.84
	Always	50	24.27
Fear of error	Never	15	7.28
	Rarely	49	23.79
	Sometimes	39	18.93
	Often	40	19.42
	Always	63	30.58
Limited career growth	Never	24	11.65
	Rarely	40	19.42
	Sometimes	44	21.36
	Often	43	20.87
	Always	55	26.7

4.3 Mean Scores of Stress, Anxiety, Depression, and Burnout Among Respondents

The mean stress score among respondents was 3.30 ± 0.48, with values ranging from 1.7 to 4.3. This indicates that, on average, respondents experienced relatively high levels of occupational stress, with scores clustering toward the upper end of the scale and showing limited variability.

The mean anxiety score was 10.36 ± 3.04 (range: 2–19), suggesting that respondents generally experienced moderate levels of anxiety. Similarly, the mean depression score was 13.98 ± 3.30, with scores ranging from 5 to 23. This reflects moderate to high levels of depressive symptoms among respondents, with a notable spread of scores indicating variability in severity.

The mean burnout score was 3.06 ± 0.54 (range: 1.17–4.67), indicating that respondents experienced moderate levels of burnout, with scores leaning toward the higher end of the scale.

The mean scores suggest that respondents experience considerable levels of stress, anxiety, depression, and burnout, with particularly elevated levels observed for stress and depression.

Table 4.4 Mean Scores of Stress, Anxiety, Depression, and Burnout Among Respondents

Variable	Mean ± SD	Min	Max
Stress score	3.30 ± 0.48	1.7	4.3
Anxiety score	10.36 ± 3.04	2	19
Depression score	13.98 ± 3.30	5	23
Burnout score	3.06 ± 0.54	1.17	4.67

4.4 Distribution of Anxiety, Depression, and Burnout Levels Among Respondents

The findings indicate that anxiety levels among respondents were predominantly moderate. Over half of the respondents (50.49%) experienced moderate anxiety, while 35.44% reported mild anxiety. A smaller proportion (11.17%) experienced severe anxiety, and only 2.91% reported minimal symptoms. This suggests that anxiety is widespread, with the majority experiencing clinically relevant levels.

Depression levels were also notably high. Nearly half of the respondents (47.57%) experienced moderate depression, while a substantial proportion (43.69%) reported severe depression. Only 8.74% had mild symptoms, indicating that depressive symptoms are both prevalent and severe among a large proportion of respondents.

Burnout levels showed a similar pattern, with the majority of respondents (65.05%) experiencing moderate burnout, while 25.24% reported high burnout. Only a small proportion (9.71%)

experienced low burnout levels, suggesting that burnout is common and often occurs at moderate to high levels.

Table 4.5 Distribution of Anxiety, Depression, and Burnout Levels Among Respondents

Variable	Category	Frequency (n)	Percentage (%)
Anxiety level	Minimal	6	2.91
	Mild	73	35.44
	Moderate	104	50.49
	Severe	23	11.17
Depression level	Mild	18	8.74
	Moderate	98	47.57
	Severe	90	43.69
Burnout level	Low	20	9.71
	Moderate	134	65.05
	High	52	25.24

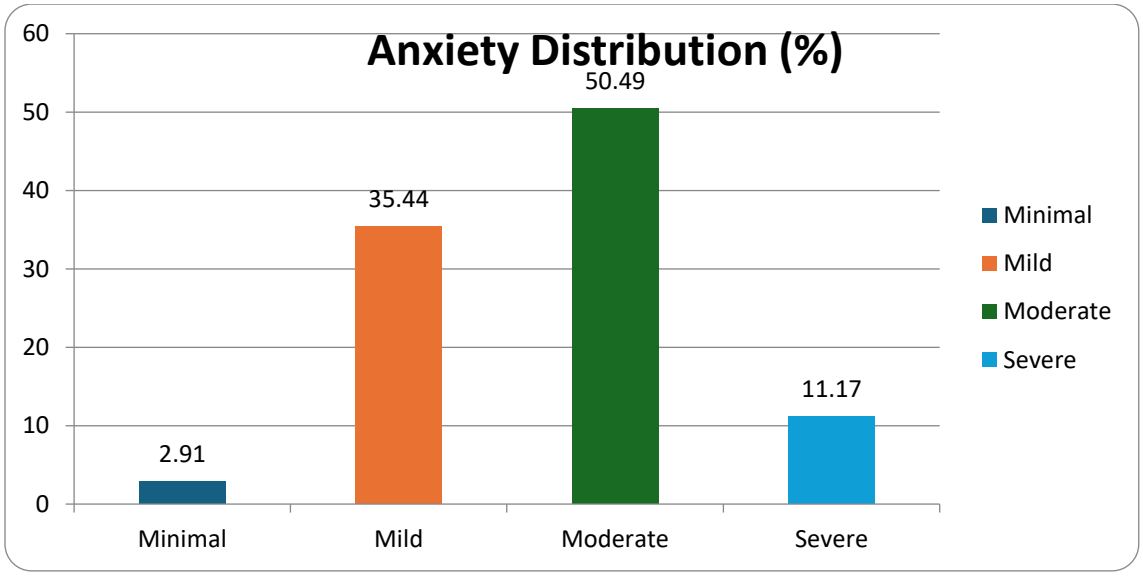


Figure 4.4 Distribution of Anxiety Levels Among Respondents (%)

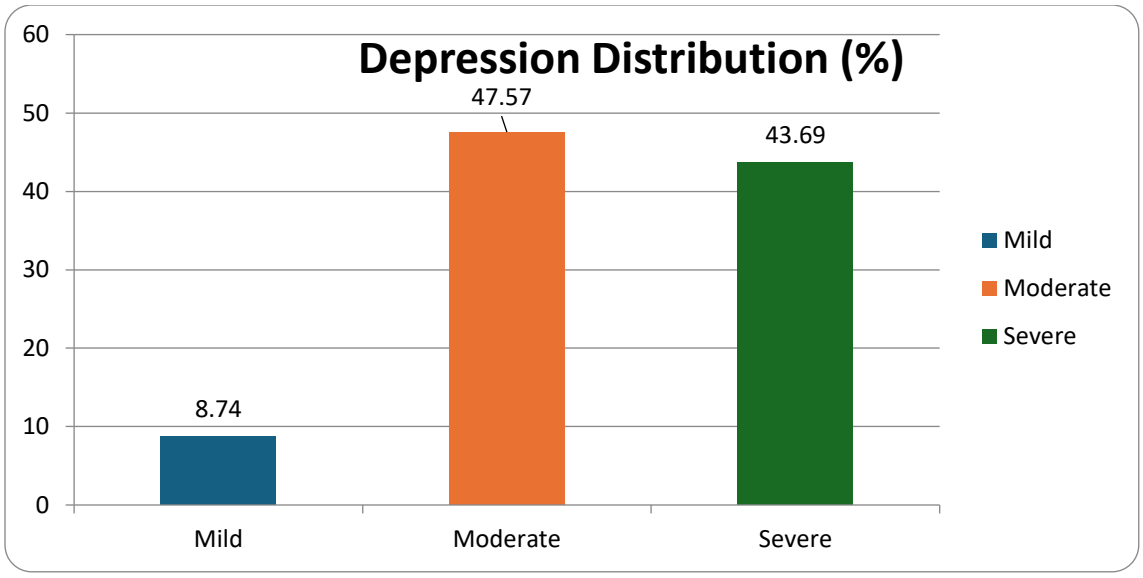


Figure 4.5 Distribution of Depression Levels Among Respondents (%)

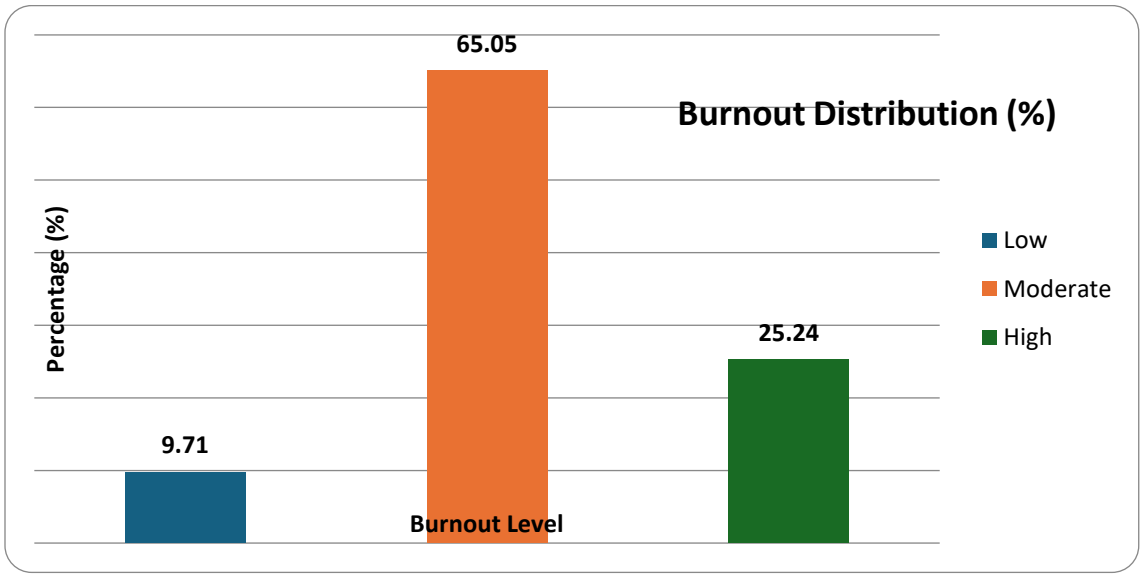


Figure 4.6 Distribution of Burnout Levels Among Respondents (%)

4.5 Relationship Between Levels of Occupational Stress and Mental Health Outcomes Among Staff.

4.5.1 Distribution of Occupational Stress Levels

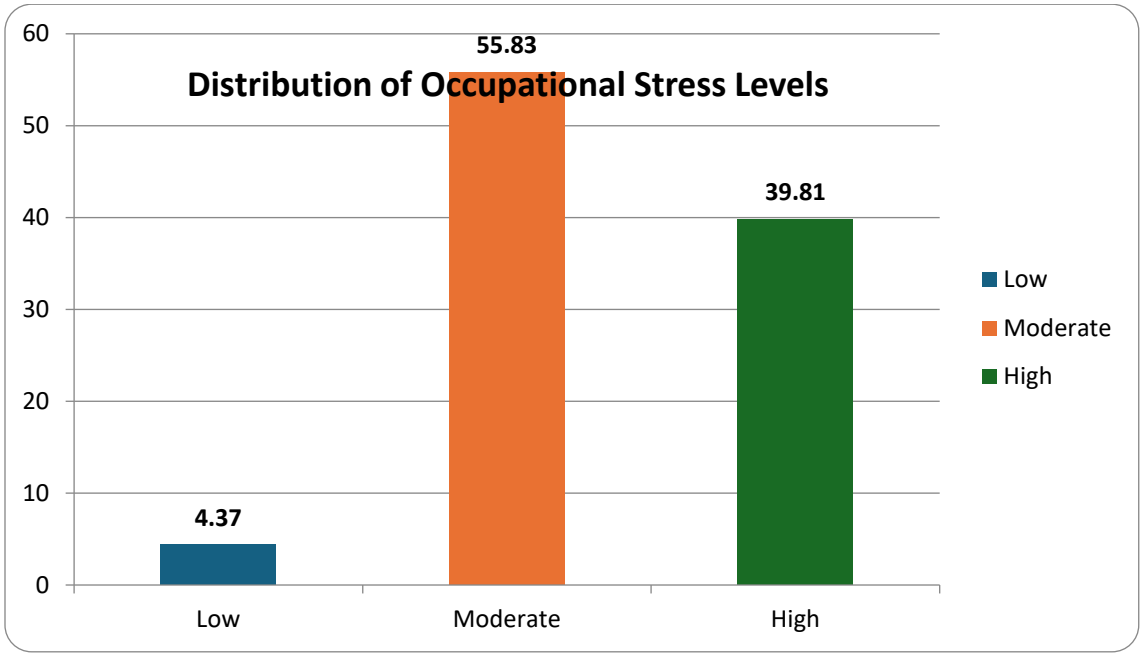


Figure 4.7 Distribution of Occupational Stress Levels Among Respondents (%)

The distribution of occupational stress levels among respondents indicates that the majority experienced moderate stress, accounting for 55.83% of the sample. This was followed by those with high stress levels (39.81%), while only a small proportion (4.37%) reported low stress.

These findings suggest that occupational stress is widespread among staff, with over 95% experiencing at least moderate levels of stress.

4.5.2 Association Between Occupational Stress Levels and Mental Health Outcomes

For the purpose of inferential analysis, anxiety, depression, and burnout were dichotomised into binary categories ("Low" vs. "High") using established cut-off points (GAD-7 ≥10; PHQ-9 ≥10; burnout mean score ≥3.0). This dichotomisation was necessary because some categories in the full categorical distributions (Table 4.5) had small cell counts that would have violated the minimum expected frequency assumptions required for valid chi-square testing and logistic regression, thereby compromising statistical power. This approach is consistent with standard practice in occupational health research. A chi-square test was conducted to examine the association between occupational stress levels and mental health outcomes (anxiety, depression, and burnout).

There was no statistically significant association between occupational stress levels and anxiety ($\chi^2 = 4.06$, $p = 0.132$). Although a higher proportion of respondents with high anxiety was observed among those with moderate and high stress levels, this relationship was not statistically significant. Similarly, there was no statistically significant association between occupational stress levels and burnout ($\chi^2 = 0.37$, $p = 0.832$).

However, there was a statistically significant association between occupational stress levels and depression ($\chi^2 = 6.82$, $p = 0.033$). The proportion of respondents with high depression increased with higher stress levels, particularly among those experiencing high stress, indicating a positive relationship between stress and depression.

Table 4.6 Association Between Occupational Stress Levels and Mental Health Outcomes

Variable	Category	Low Stress n (%)	Moderate Stress n (%)	High Stress n (%)	χ^2 value	P-value
Anxiety	Low	1 (11.11)	42 (36.52)	36 (43.90)	4.06	0.132

	High	8 (88.89)	73 (63.48)	46 (56.10)		
Depression	Low	1 (11.11)	15 (13.04)	2 (2.44)	6.82	0.033*
	High	8 (88.89)	100 (86.96)	80 (97.56)		
Burnout	Low	6 (66.67)	87 (75.65)	61 (74.39)	0.37	0.832
	High	3 (33.33)	28 (24.35)	21 (25.61)		

4.5.3 Multivariable Logistic Regression Analysis of Occupational Stress and Mental Health Outcomes

Logistic regression analysis was conducted to examine the association between occupational stress and mental health outcomes among respondents.

The results showed that occupational stress was not significantly associated with anxiety. (AOR = 0.66, 95% CI: 0.39–1.12, p = 0.127). Similarly, no statistically significant association was observed between occupational stress and burnout (AOR = 1.03, 95% CI: 0.58–1.84, p = 0.916).

In contrast, occupational stress was significantly associated with depression. Respondents with high levels of occupational stress had significantly higher odds of reporting depressive symptoms compared to those with low stress levels (AOR = 2.54, 95% CI: 1.97–6.64, p = 0.048).

Table 4.7 Multivariable Logistic Regression Analysis of Occupational Stress and Mental Health Outcomes

Outcome Variable	Predictor Variable	Category	COR (95% CI)	COR p-value	AOR (95% CI)	AOR p-value
Anxiety	Occupational Stress	Low (Ref)	1	–	1	–
		High	0.63 (0.38–1.05)	0.076	0.66 (0.39–1.12)	0.127
Depression	Occupational Stress	Low (Ref)	1	–	1	–
		High	2.87 (1.17–7.04)	0.022*	2.54 (1.97–6.64)	0.048*
Burnout	Occupational Stress	Low (Ref)	1	–	1	–

		High	0.97 (0.55–1.69)	0.903	1.03 (0.58–1.84)	0.916

CHAPTER FIVE

5.0 DISCUSSION

5.1 Sources of Occupational Stress Among Staff

The findings from this study reveal that occupational stress among staff at FOCOS Orthopaedic Hospital is multidimensional and pervasive, with several stressors occurring at moderate to high frequency. Notably, heavy workload, lack of support, fear of clinical errors, long working hours, and exposure to distressing events emerged as dominant stressors. This pattern suggests that stress is not driven by a single factor but rather by a combination of job demands and organisational constraints.

A key finding is the high prevalence of heavy workload and time pressure, with a substantial proportion of respondents reporting frequent or constant exposure. This is not surprising within a specialised Orthopaedic setting like FOCOS, where staff are required to manage complex surgical procedures, high patient volumes, and time-sensitive clinical decisions. Such environments inherently demand sustained physical and cognitive effort. Similar findings have been widely reported in the literature. For instance, Woo et al. (2020) identified excessive workload as one of the most consistent predictors of burnout globally. Likewise, West et al. (2018) emphasized that long hours and high clinical responsibility significantly increase stress among healthcare workers.

In the Ghanaian context, Kaburi et al. (2019) similarly found workload to be a primary driver of occupational stress.

Closely related to workload is the issue of long working hours, which was also widely reported in this study. Extended shifts, especially in surgical settings, may reduce recovery time and contribute to cumulative fatigue. This aligns with findings from Shah et al. (2021), who reported that prolonged working hours significantly increased burnout risk. However, while global studies often attribute long working hours to system inefficiencies, in LMIC contexts such as Ghana, this may be further exacerbated by staff shortages and limited workforce capacity, intensifying the burden on available staff.

Another prominent stressor identified is the lack of support from supervisors or colleagues, which had the highest proportion of respondents reporting "always." This highlights potential gaps in organisational culture and leadership within the hospital setting. Support systems are critical in buffering workplace stress, particularly in emotionally demanding environments. Evidence from Poku et al. (2020) shows that poor supervisory support is strongly associated with emotional exhaustion among nurses. Similarly, Søvold et al. (2021) emphasised that supportive work environments play a crucial role in protecting mental health. In contrast, some studies suggest that peer support may compensate for weak managerial support; however, the high prevalence observed here suggests that both formal and informal support systems may be insufficient in this context.

The findings also highlight significant levels of fear of making clinical errors, which was one of the most pronounced stressors. This is particularly relevant in a specialised hospital where clinical outcomes are often high-risk and errors can have serious consequences. This aligns with findings from Zhu et al. (2023), which identified fear of mistakes and high responsibility as key contributors

to anxiety among healthcare workers. Similarly, West et al. (2018) noted that responsibility for patient outcomes significantly increases psychological strain. This stressor reflects not only job demands but also the emotional burden of clinical accountability.

Exposure to traumatic or distressing events was also widely reported, reflecting the emotional intensity of healthcare work, especially in Orthopaedic and trauma-related care. Healthcare workers frequently encounter severe injuries, chronic disabilities, and patient suffering, which can lead to emotional exhaustion over time. This finding is consistent with evidence from Zhu et al. (2023), which linked exposure to distressing clinical situations with increased psychological distress. However, while global studies often emphasise structured psychological support systems, such systems may be less developed in LMIC settings, potentially amplifying the impact of these experiences.

Other stressors such as role ambiguity, workplace conflict, inadequate resources, and limited career growth opportunities further reinforce the organisational nature of stress within the facility. Role ambiguity may arise from unclear job descriptions or overlapping responsibilities, while inadequate resources reflect systemic challenges common in many healthcare settings in Ghana. Kaburi et al. (2019) also identified inadequate logistics and resource constraints as significant stressors. Interestingly, while some global studies place greater emphasis on technological or administrative burdens, this study highlights resource limitations and structural inefficiencies as more pressing concerns in this context.

From a theoretical perspective, these findings strongly align with the Job Demands–Resources Model. The identified stressors—workload, long hours, emotional demands, and role ambiguity—represent job demands, which require sustained effort and contribute to psychological strain. At the same time, factors such as lack of support and inadequate resources indicate a deficiency in

job resources, which would otherwise help buffer these demands. The imbalance between high demands and limited resources creates conditions that predispose staff to stress and adverse mental health outcomes.

Additionally, the Transactional Model of Stress and Coping provides further insight, suggesting that stress is influenced by how individuals perceive and cope with these demands. For instance, fear of making errors may be intensified when staff perceive that they lack adequate support or resources to perform effectively.

Overall, the findings suggest that occupational stress at FOCOS Orthopaedic Hospital is driven by a complex interplay of clinical demands, organisational weaknesses, and emotional pressures. This has important implications for practice. Addressing stress in this setting will require not only reducing workload and improving staffing but also strengthening support systems, clarifying roles, improving resource availability, and providing psychological support services. Without such interventions, the cumulative effect of these stressors may compromise both staff wellbeing and quality of patient care.

5.2 Levels and Severity of Mental Health Symptoms

The findings of this study indicate that staff at FOCOS Orthopaedic Hospital experience considerable levels of mental health challenges, with moderate to high levels of anxiety, depression, and burnout. The mean scores for stress (3.30 ± 0.48), anxiety (10.36 ± 3.04), depression (13.98 ± 3.30), and burnout (3.06 ± 0.54) collectively suggest that respondents are operating under substantial psychological strain, with particularly elevated levels observed for stress and depression.

A striking finding is the high prevalence of depressive symptoms, with nearly half of respondents experiencing moderate depression and a substantial proportion reporting severe depression. This suggests that depressive symptoms are not only widespread but also intense and clinically significant among staff. One possible explanation for this pattern is the cumulative effect of prolonged exposure to occupational stressors such as workload, emotional demands, and limited organisational support, as identified in the previous findings. In high-pressure healthcare environments, especially specialised settings, chronic stress can transition into depressive symptoms when coping resources are insufficient. This aligns with findings from Zhu et al. (2023), which reported high levels of depression among healthcare workers globally, particularly in contexts characterised by high workload and emotional strain. Similarly, Søvold et al. (2021) emphasised that sustained workplace stress is a key driver of poor mental health outcomes, including depression.

The prevalence of anxiety in this study is also notable, with over half of respondents experiencing moderate anxiety and a smaller but important proportion reporting severe symptoms. This suggests that anxiety is widespread and clinically relevant, even if not as severe as depression overall. The nature of healthcare work—particularly fear of making errors, time pressure, and responsibility for patient outcomes—likely contributes to this pattern. This is consistent with Zhu et al. (2023), who identified fear of clinical errors and high responsibility as major predictors of anxiety among healthcare workers. However, compared to some global findings where anxiety levels may be more evenly distributed, the clustering of respondents within the moderate category in this study suggests a persistent, background level of psychological tension, rather than extreme acute distress.

Burnout levels further reinforce the presence of significant psychological strain, with the majority of respondents experiencing moderate burnout and a quarter reporting high burnout. This pattern

indicates that burnout is not an isolated phenomenon but a common experience among staff. The predominance of moderate burnout suggests that many workers may still be functioning but are at risk of progressing to more severe burnout if conditions persist. This finding is consistent with global evidence from Woo et al. (2020), which reported high prevalence of burnout symptoms among nurses, particularly emotional exhaustion. In the Ghanaian context, Opoku et al. (2022) similarly found substantial levels of burnout among nurses, with many expressing intentions to leave the profession. However, while some studies report higher proportions of severe burnout, the predominance of moderate burnout in this study may indicate an early or intermediate stage of burnout progression, providing a critical window for intervention.

The overall pattern observed—moderate to high levels across stress, anxiety, depression, and burnout—suggests a cumulative burden of psychological distress among healthcare workers in this setting. These outcomes are likely interrelated, with occupational stress acting as a central driver. From a theoretical standpoint, this aligns strongly with the Job Demands–Resources Model, which posits that sustained exposure to high job demands, in the absence of adequate job resources, leads to strain and adverse mental health outcomes such as burnout and psychological distress. The high stress scores observed in this study indicate that job demands are substantial, while the previously identified lack of support and resource constraints suggest insufficient buffering mechanisms.

Additionally, the Transactional Model of Stress and Coping helps explain the variation in severity observed among respondents. While many individuals reported moderate symptoms, a smaller proportion experienced severe anxiety and depression, suggesting differences in individual appraisal and coping capacity. Those with limited coping resources or lower perceived control over their work environment may be more vulnerable to severe psychological outcomes.

Interestingly, while global literature often highlights anxiety as a dominant mental health issue among healthcare workers, this study found depression to be more pronounced, which may reflect contextual differences. In resource-constrained settings such as Ghana, prolonged exposure to systemic challenges—such as inadequate resources, limited career progression, and persistent workload—may contribute more strongly to depressive symptoms than to acute anxiety. This distinction underscores the importance of context-specific interventions rather than relying solely on global trends.

Overall, the findings demonstrate that mental health challenges among staff at FOCOS Orthopaedic Hospital are both prevalent and significant, with a large proportion of workers experiencing moderate to severe symptoms. This has important implications for healthcare delivery, as poor mental health among staff can affect productivity, decision-making, and quality of patient care. Addressing these issues will require comprehensive strategies that target both workplace stressors and individual coping capacity, including mental health support services, workload management, and organisational reforms.

5.3 Relationship Between Occupational Stress and Mental Health Outcomes

The findings of this study show that occupational stress is highly prevalent among staff, with over 95% experiencing moderate to high stress levels. Despite this widespread exposure, the relationship between occupational stress and mental health outcomes presents a differentiated pattern, with a statistically significant association observed only for depression, but not for anxiety or burnout.

The significant association between occupational stress and depression, with respondents experiencing high levels of stress being approximately 2.5 times more likely to report depressive

symptoms, highlights depression as the most strongly associated mental health outcome in this study. This finding suggests that occupational stress in this setting may operate as a chronic and cumulative psychological burden, gradually contributing to depressive symptoms over time. This interpretation is consistent with global evidence. For instance, Zhu et al. (2023) reported that sustained occupational stress is significantly associated with increased depressive symptoms among healthcare workers. Similarly, Søvold et al. (2021) emphasised that prolonged exposure to demanding work environments contributes to depression, particularly where organisational support is limited.

Evidence from LMIC settings further supports this finding. Hailay et al. (2020) and Okwaraji & Aguwa (2016) both highlight how persistent occupational stressors, including workload and resource constraints, are associated with psychological distress, including depressive symptoms. In Ghana, Poku et al. (2020) demonstrated that workplace stressors significantly contribute to emotional exhaustion, which is closely linked to depressive states. Together, these findings reinforce that depression is strongly associated with sustained occupational stress, especially in resource-limited healthcare settings.

In contrast, this study found no statistically significant association between occupational stress and anxiety, despite the high prevalence of moderate anxiety among respondents. This finding contrasts with several studies that report a strong link between stress and anxiety. For example, Zhu et al. (2023) identified occupational stress as a major factor associated with anxiety among healthcare workers. Similarly, West et al. (2018) highlighted that high job demands and responsibility contribute to anxiety and psychological strain.

However, some studies suggest that anxiety may not always show a direct statistical association with occupational stress when other factors are involved. For instance, Søvold et al. (2021) noted

that anxiety can be influenced by individual-level factors, including coping mechanisms, personality traits, and external stressors beyond the workplace. In this study, the relatively uniform distribution of moderate stress across respondents may have reduced variability, making it difficult to detect a significant association. Additionally, anxiety may represent a more acute or situational response, whereas the stress experienced by respondents appears to be more chronic, thereby manifesting more strongly as depression.

Similarly, the absence of a significant relationship between occupational stress and burnout in this study contrasts with a substantial body of literature. Woo et al. (2020) found a strong association between work-related stressors and burnout among nurses globally. In Ghana, Opoku et al. (2022) reported that burnout is closely linked to workplace stress and is a key factor influencing intention to leave the profession. Additionally, Kaburi et al. (2019) identified occupational stressors such as workload and inadequate resources as predictors of burnout.

The lack of statistical significance in this study may therefore reflect contextual or methodological factors rather than the absence of a true relationship. One possible explanation is that burnout levels in this population are already consistently moderate to high across all respondents, limiting variation across stress categories. Another explanation may be related to measurement, as burnout was assessed using adapted items rather than a fully standardised instrument, which may reduce sensitivity in detecting associations.

From a theoretical perspective, these findings can be understood within the Job Demands–Resources Model. The high levels of occupational stress observed reflect substantial job demands, while previously identified factors such as lack of support and inadequate resources indicate limited job resources. The model suggests that such an imbalance leads to strain and adverse

mental health outcomes. However, the variation in outcomes observed in this study highlights the role of mediating and moderating factors, including coping mechanisms and social support.

The Transactional Model of Stress and Coping further explains these differences by emphasising individual appraisal processes. While all respondents are exposed to similar stressors, differences in perception and coping may determine whether stress manifests as anxiety, depression, or burnout. This helps explain why depression showed a strong association with occupational stress, while anxiety and burnout did not.

The findings suggest that occupational stress in this setting has a selective but significant association with mental health outcomes, with depression emerging as the most strongly associated outcome. The absence of associations with anxiety and burnout does not negate their importance but rather indicates that these outcomes may be influenced by a broader set of factors beyond occupational stress alone. These insights underscore the need for multi-level interventions that address both workplace stressors and individual coping capacities to effectively improve mental health outcomes among healthcare workers.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This study examined the impact of occupational stress on the mental health of staff at FOCOS Orthopaedic Hospital, with a focus on identifying key stressors, assessing the levels and severity of mental health symptoms, and determining the relationship between occupational stress and psychological wellbeing.

The findings revealed that occupational stress is highly prevalent, with the majority of staff experiencing moderate to high levels of stress. Key stressors identified included heavy workload, long working hours, lack of supervisory and collegial support, fear of making clinical errors, exposure to distressing events, and inadequate resources. In terms of mental health outcomes, the study found that anxiety, depression, and burnout are widespread among staff, with particularly elevated levels of depressive symptoms. A substantial proportion of respondents experienced moderate to severe depression, while burnout was also common at moderate to high levels. Anxiety was prevalent but largely concentrated at moderate levels.

With regard to the relationship between occupational stress and mental health outcomes, the study found a statistically significant association between occupational stress and depression, suggesting that higher levels of stress increase the likelihood of depressive symptoms. However, no significant associations were observed between occupational stress and anxiety or burnout. The study concludes that occupational stress is a major occupational health concern at FOCOS Orthopaedic Hospital, with clear implications for staff wellbeing, workforce sustainability, and healthcare

delivery. Addressing this issue requires a comprehensive and multi-level approach that targets both workplace conditions and individual coping capacity.

6.2 Study Limitations

This study has some limitations that should be considered when interpreting the findings. First, the cross-sectional design limits the ability to establish temporal or causal relationships between occupational stress and mental health outcomes. While associations were identified, it is not possible to determine the direction of these relationships.

Second, the study relied on self-reported data, which may be subject to response bias, including recall bias and social desirability bias.

Additionally, burnout was assessed using six adapted Likert-scale items rather than a fully validated, multi-dimensional instrument such as the Maslach Burnout Inventory (MBI). While the adapted items were informed by established burnout constructs, including emotional exhaustion, reduced personal accomplishment, and work-related fatigue, the use of an unvalidated shortened scale compromises the internal validity and construct validity of the burnout variable. This limitation may have reduced the sensitivity of the burnout measure and contributed to the absence of a statistically significant association between occupational stress and burnout in this study. Future studies should employ standardised, validated burnout instruments to ensure more rigorous measurement of this multi-dimensional construct.

Finally, the study was conducted in a single specialised hospital, which may limit the generalisability of the findings to other healthcare settings in Ghana.

6.3 Recommendations

1. The recommendations are presented in line with the study objectives and are directed at hospital management, policymakers, and relevant stakeholders.
2. Hospital management should implement strategies to reduce excessive workload, including recruiting additional staff, redistributing tasks, and introducing flexible work schedules to prevent overburdening existing staff.
3. There is a need to improve supervisory and peer support through leadership training, mentorship programmes, and team-building initiatives to foster a more supportive work environment.
4. The hospital should establish regular mental health screening and support services, including counselling and psychological support for staff.
5. Wellness programmes such as relaxation sessions, physical activity initiatives, and work-life balance policies should be promoted to improve overall wellbeing.

REFERENCES

Aiken, L. H., Lasater, K. B., Sloane, D. M., Pogue, C. A., Fitzpatrick Rosenbaum, K. E., Muir, K. J., & McHugh, M. D. (2023). Physician and nurse well-being and preferred interventions to address burnout in hospital practice: Factors associated with turnover, outcomes, and patient safety. *JAMA Health Forum, 4*(7), e231809. https://doi.org/10.1001/jamahealthforum.2023.1809

Aust, B., Leduc, C., Cresswell-Smith, J., Rugulies, R., & Greiner, B. A. (2024). The effects of different types of organisational workplace mental health interventions on mental health and wellbeing in healthcare workers: A systematic review. *International Archives of Occupational and Environmental Health, 97*(5), 485–522. https://doi.org/10.1007/s00420-024-02065-z

Galanis, P., Vraka, I., Fragkou, D., Bilali, A., & Kaitelidou, D. (2021). Nurses' burnout and associated risk factors during the COVID-19 pandemic: A systematic review and meta-analysis. *Journal of Advanced Nursing, 77*(8), 3286–3302. https://doi.org/10.1111/jan.14839

Kodom, P. N. B., Parimah, F., & Agyemang, C. B. (2026). "We are one of the most depressed professionals": Nurses' experiences of psychological hazards in a district hospital. *Nursing Open, 13*(5), e70597. https://doi.org/10.1002/nop2.70597

Osei, H. V., Arthur, J., Aseibu, F., Osei-Kwame, D., Fiakeye, R., & Abama, C. (2024). The joint impact of burnout and neurotic personality on career satisfaction and intention to leave among health workers during the first 2 years of COVID-19. *Journal of Health Organization and Management*. https://doi.org/10.1108/JHOM-03-2023-0089

Ryan, E., Hore, K., Power, J., & Jackson, T. (2023). The relationship between physician burnout and depression, anxiety, suicidality and substance abuse: A mixed methods systematic review. *Frontiers in Public Health, 11*, 1133484. https://doi.org/10.3389/fpubh.2023.1133484

Singh, J., Karanika-Murray, M., Baguley, T., & Hudson, J. (2020). A systematic review of job demands and resources associated with compassion fatigue in mental health professionals. *International Journal of Environmental Research and Public Health, 17*(19), 6987. https://doi.org/10.3390/ijerph17196987

Teo, I., Sung, S. C., Cheung, Y. B., Wong, W. H. M., & Tan, H. K. (2021). Burnout, anxiety and depression in healthcare workers during the early COVID-19 period in Singapore. *Singapore Medical Journal, 65*(Suppl 1), S26–S29. https://doi.org/10.11622/smedj.2021156

Yu, F., Raphael, D., Mackay, L., Smith, M., & King, A. (2019). Personal and work-related factors associated with nurse resilience: A systematic review. *International Journal of Nursing Studies, 93*, 129–140. https://doi.org/10.1016/j.ijnurstu.2019.02.014

Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology, 22*(3), 273–285.

Chahal, K., & Matwala, K. (2025). A systematic review of the prevalence of burnout in Orthopaedic surgeons. *Annals of the Royal College of Surgeons of England, 107*(1), 61–67. https://doi.org/10.1308/rcsann.2024.0009

CSP. (2023). *Pay, staffing and work pressures among key issues in latest NHS Staff survey in England*. Chartered Society of Physiotherapy. Available at: https://www.csp.org.uk/news/2023-

03-10-pay-staffing-work-pressures-among-key-issues-latest-nhs-staff-survey-england (Accessed: 23 May 2025).

FOCOS. (2025a). *Home – FOCOS Orthopaedic Hospital in Accra, Ghana*. Foundation of Orthopaedics and Complex Spine. Available at: https://focoshospital.org (Accessed: 23 May 2025).

FOCOS. (2025b). *Our Story – FOCOS Foundation*. Foundation of Orthopaedics and Complex Spine. Available at: https://focos.focoshospital.org/our-story (Accessed: 23 May 2025).

Folkman, S. (2022). Stress, coping, and hope. In M. Feuerstein (Ed.), *Psychological aspects of cancer* (pp. 109–117). Springer. https://doi.org/10.1007/978-3-030-85702-8_7

Godwin, A., Suuk, L. A., & Selorm, F. H. (2017). Occupational stress and its management among nurses at St. Dominic Hospital, Akwatia, Ghana. *Health Science Journal, 10*(6). https://doi.org/10.21767/1791-809X.1000467

Hailay, A., Berhe, H., & Desta, M. (2020). Burnout among nurses in Ethiopia: A systematic review and meta-analysis. *BMC Nursing, 19*, 69.

HSS. (2012). *Chief Emeritus of Scoliosis Service at Hospital for Special Surgery fulfills life's dream to open Orthopaedic hospital in Ghana*. Available at: https://www.hss.edu/newsroom_boachie-opens-Orthopaedic-hospital-ghana.asp (Accessed: 23 May 2025).

Kaburi, B. B., Bio, F. Y., Kubio, C., Ameme, D. K., Kenu, E., Sackey, S. O., & Afari, E. A. (2019). Psychological working conditions and predictors of occupational stress among nurses in Salaga

Government Hospital, Ghana. *Pan African Medical Journal, 33*, 320. https://doi.org/10.11604/PAMJ.2019.33.320.16147

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

Lesener, T., Gusy, B., & Wolter, C. (2019). The job demands–resources model: A meta-analytic review of longitudinal studies. *Work & Stress, 33*(1), 76–103.

Meng, W., Liu, J., Liu, H., Hu, X., & Wang, Y. (2023). Global prevalence of burnout among nurses: A systematic review and meta-analysis. *International Journal of Nursing Studies, 137*, 104390.

Novignon, J., Aboagye, E., Agyemang, O. S., & Aryeetey, G. (2015). Socioeconomic-related inequalities in child malnutrition: Evidence from the Ghana multiple indicator cluster survey. *Health Economics Review, 5*(1), 34.

Odonkor, S. T., & Frimpong, K. (2020). Burnout among healthcare professionals in Ghana: A cross-sectional study. *BMC Health Services Research, 20*, 1–9.

Okwaraji, F. E., & Aguwa, E. N. (2016). Burnout and psychological distress among nurses in a Nigerian tertiary health institution. *African Health Sciences, 16*(2), 381–388.

Opoku, S. T., Agyemang-Duah, W., & Asiamah, N. (2022). Burnout and intention to leave among nurses in Ghana: A cross-sectional study. *PLOS ONE, 17*(3), e0265898.

Özkan, A. H. (2022). The effect of burnout and its dimensions on turnover intention among nurses: A meta-analytic review. *Journal of Nursing Management, 30*(3), 660–669.

Poku, C. A., Donkor, E. S., & Naab, F. (2020). Determinants of emotional exhaustion among nurses in Ghana. *Nursing Open, 7*(5), 1578–1587.

Ross, P. P., Okafor, L. C., Rumps, M. V., & Mulcahey, M. K. (2025). Promoting wellness among Orthopaedic surgeons. *JBJS Open Access, 10*(1), e24.00090.

Shah, M. K., Gandrakota, N., Cimiotti, J. P., Ghose, N., Moore, M., & Ali, M. K. (2021). Prevalence of and factors associated with nurse burnout in the United States. *Health Services Research, 56*(S2), 173–180.

Shanafelt, T. D., Boone, S., Tan, L., Dyrbye, L. N., Sotile, W., Satele, D., West, C. P., Sloan, J., & Oreskovich, M. R. (2012). Burnout and satisfaction with work–life balance among US physicians relative to the general US population. *Archives of Internal Medicine, 172*(18), 1377–1385.

Søvold, L. E., Naslund, J. A., Kousoulis, A. A., Saxena, S., Qoronfleh, M. W., Grobler, C., & Münter, L. (2021). Prioritizing the mental health and well-being of healthcare workers: An urgent global public health priority. *Frontiers in Public Health, 9*, 679397.

Thankachen, S., Kabir, Z., & Sadath, A. (2025). Occupational stress and mental health among migrant healthcare workers in Ireland: A cross-sectional analysis. *Journal of Migration and Health, 11*, 100325.

Udho, S., & Kabunga, A. (2022). Burnout and associated factors among hospital-based nurses in Northern Uganda: A cross-sectional survey. *BioMed Research International*.

West, C. P., Dyrbye, L. N., & Shanafelt, T. D. (2018). Physician burnout: Contributors, consequences and solutions. *Journal of Internal Medicine, 283*(6), 516–529.

Woo, T., Ho, R., Tang, A., & Tam, W. (2020). Global prevalence of burnout symptoms among nurses: A systematic review and meta-analysis. *Journal of Psychiatric Research, 123*, 9–20.

World Health Organization. (2019). *Burn-out an occupational phenomenon: International classification of diseases (ICD-11)*. WHO.

World Health Organization. (2024). *Mental health at work: Global report*. Geneva: WHO.

Zhu, J., Sun, L., Zhang, L., Wang, H., Fan, A., Yang, B., & Li, W. (2023). Prevalence of anxiety and depression among healthcare workers: A systematic review and meta-analysis. *BMJ Open, 13*, e061945

QUESTIONNAIRE

Assessing the impact of occupational stress on the mental health of staff at FOCOS Orthopaedic Hospital

Section A: Demographic Information

1. **Age:**
   ___ (Please specify)
2. **Gender:**
   ☐ Male
   ☐ Female
   ☐ Other (please specify): _____
3. **Job Title/Role:**
   ___ (Please specify)
4. **Years of service at FOCOS Orthopaedic Hospital:**
   ___ (Please specify in years)
5. **Work Schedule:**
   ☐ Day shift
   ☐ Night shift
   ☐ Rotating shifts

Section B: Sources of Occupational Stress

Please indicate how frequently you experience the following work-related stressors using this scale:
1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always

6. How often do you experience heavy workload or time pressure?
   ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
7. How often do you encounter unclear job expectations (role ambiguity)?
   ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
8. How often do you feel a lack of support from supervisors or colleagues?
   ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

9. How often are you exposed to traumatic or distressing events at work?
   ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

10. How often do you experience conflicts with colleagues or management?
    ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

11. How often do you feel that inadequate resources affect your ability to do your job?
    ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

12. How often do you work long hours?
    ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

13. How often do you feel that your job interferes with your personal or family life?
    ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

14. How often are you afraid of making errors that may negatively affect patients?
    ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

15. How often do you feel that there are limited career advancement opportunities?
    ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Section C: Mental Health Assessment

In the past month, how often have you experienced the following symptoms?
0 = Not at all, 1 = Several days, 2 = More than half the days, 3 = Nearly every day

Anxiety Symptoms (GAD-7 adapted)

16. Feeling nervous, anxious, or on edge
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

17. Not being able to stop or control worrying
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

18. Worrying too much about different things
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

19. Trouble relaxing
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

20. Being so restless that it is hard to sit still
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

21. Becoming easily annoyed or irritable
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

22. Feeling afraid as if something awful might happen
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

Depression Symptoms (PHQ-9 adapted)

23. Little interest or pleasure in doing things
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

24. Feeling down, depressed, or hopeless
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

25. Trouble falling or staying asleep, or sleeping too much
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

26. Feeling tired or having little energy
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

27. Poor appetite or overeating
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

28. Feeling bad about yourself or feeling like a failure
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

29. Trouble concentrating on things
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

30. Moving or speaking slowly, or feeling restless or agitated
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

31. Thoughts that you would be better off dead or of hurting yourself
    ☐ 0 ☐ 1 ☐ 2 ☐ 3

Section D: Burnout Symptoms

How often do you experience the following feelings about your job?
1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always

32. I feel emotionally drained from my work
    ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

33. I feel used up at the end of the workday
    ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

34. I feel fatigued when I get up in the morning and face another workday
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

35. I feel I am working too hard at my job
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

36. I feel frustrated by my job
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

37. I feel I am positively influencing other people's lives through my work
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

INFORMED CONSENT FORM

GENERAL INFORMATION ABOUT THE STUDY

My name is Annan Percy Reginald, a Master of Public Health student at Ensign Global College, Kpong. I am conducting a study titled: "Assessing the Impact of Occupational Stress on the Mental Health of Staff at FOCOS Orthopaedic Hospital." You have been invited to take part in this study because you work at the hospital and your experience is important to help us understand how job-related stress may affect staff mental health.

If you agree to participate, you will be asked to answer some questions. These questions will focus on your background, your work environment, the level of stress you may be experiencing at work, how you cope with it, and how it may be affecting your mental wellbeing. You will respond by choosing answers that best reflect your situation. The interview or questionnaire will take about 15 minutes to complete.

Benefits/Risks of the Study

There are no expected risks involved in participating in this study. However, answering questions about stress and mental health may feel uncomfortable for some people. You may skip any question you are not comfortable with. There is no direct benefit to you for participating, but the findings from this study may help improve workplace wellbeing strategies and support systems for staff in healthcare settings like FOCOS.

Confidentiality

Your responses will be kept strictly confidential. Your name and any identifying information will not appear in the study results. All data collected will be stored securely on a password-protected

device, accessible only to the researcher and his academic supervisor. Your privacy and anonymity will be fully protected.

Compensation

Your participation in this study is completely voluntary. There will be no payment or financial reward for taking part. However, we appreciate your time and input, which are valuable to the success of this research.

Right to Withdraw

You are free to choose whether or not to participate in this study. You may also stop participating at any point without giving a reason and without facing any penalty or disadvantage. You are also welcome to ask questions now or at any time during the study process.

PARTICIPANT AGREEMENT

I have read (or have had read to me) the information above. I understand that I will be asked questions about my work stress and mental health. I have had the chance to ask any questions, and all my questions have been answered clearly. I understand that my participation is voluntary, and I can stop at any time without consequences. I agree to take part in this study willingly.

_____

Name of Participant

_____

Signature of Participant

_____

Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

_____

Name of Person who Obtained Consent

_____

Signature of Person Who Obtained Consent

_____

Date

Emergency Contact

Annan Percy Reginald

Phone; 0244272161

Mail; reginald.annan@st.ensign.edu.gh

22416504:REGINALD_Plag..docx

ORIGINALITY REPORT

15%	12%	9%	5%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	www.mdpi.com Internet Source	
2	Wang, Wenxiao. "Work Engagement Mechanisms of Township Hospitals' Healthcare Workers in Guangxi- An Integrated Study Based on the Job Demands-Resources Model. ISCTE - Instituto Universitario de Lisboa (Portugal) Publication	
3	Sindhu Thankachen, Zubair Kabir, Anvar Sadath. "A Cross-Sectional Analysis of Occupational Stress and Mental Health among Migrant Healthcare Workers in Ireland", Journal of Migration and Health, 2025 Publication	
4	assets-eu.researchsquare.com Internet Source	
5	norr.numl.edu.pk Internet Source	
6	aging.jmir.org Internet Source	
7	wsj.westsciences.com Internet Source	
8	www.nepjol.info Internet Source	
9	www.researchsquare.com Internet Source	
10	Alexander-Stamatios Antoniou, Cary L. Cooper. "Coping, Personality and the Workplace Responding to Psychological Crisis and Critical Events", Routledge, 2017 Publication	
11	www.frontiersin.org Internet Source	
12	Submitted to Aspen University Student Paper	
13	www.richtmann.org Internet Source	

14 quarterlyreview.net
Internet Source

15 digitallibrary.loyolacollegekerala.edu.in:8080
Internet Source

16 social.sciencearchives.org
Internet Source

17 core.ac.uk
Internet Source

18 Submitted to University of Namibia
Student Paper

19 Submitted to Swami Rama Himalayan University
Student Paper

20 nmsreview.org
Internet Source

21 jpmsonline.com
Internet Source

22 Submitted to University of Liverpool
Student Paper

23 Dentato, Michael P.. "Social Work Practice with the LGBTQ+ Community", Social Work Practice with the LGBTQ+ Community, 2022
Publication

24 erepository.mku.ac.ke
Internet Source

25 Hauwa Mohammed, Duncan Shikuku, Yusupha Sanyang, Eniola Kadir et al. "Caring Unc Pressure: A Mixed-Methods Study of Work-Related Stress Among Skilled Health Person Providing Maternity Care in Nigeria", Springer Science and Business Media LLC, 2026
Publication

26 www.multiresearchjournal.com
Internet Source

27 ijlbpr.com
Internet Source

28 Submitted to Carrington College
Student Paper

29 Submitted to Heriot-Watt University
Student Paper

30 Ning Chen, Li-Juan Wu, Huan-Bo Xiao, Yu-Hong Liu, Li-Kun Hu, Lin-Lin Ma, Xi Chu, Jing Dong, Yu-Xiang Yan. "Occupational stress is associated with insulin resistance and incid type 2 diabetes: A prospective cohort study of functional community", Clinica Chimica Acta, 2023
Publication

31 Submitted to Midlands State University
Student Paper

32 ir.knust.edu.gh
Internet Source

33 johil.org
Internet Source

34 www.aids2020.org
Internet Source

35 bdears.busitema.ac.ug
Internet Source

36 doaj.org
Internet Source

37 dsc.discovery.com
Internet Source

38 greenresearchng.com
Internet Source

39 jcasc.com
Internet Source

40 vtechworks.lib.vt.edu
Internet Source

41 academia.edu.pk
Internet Source

42 academiainsight.com
Internet Source

43 conference.ase.ro
Internet Source

44 doras.dcu.ie
Internet Source

45 dspace.muhas.ac.tz:8080
Internet Source

46	ir.ucc.edu.gh	Internet Source
47	journals.lww.com	Internet Source
48	ugspace.ug.edu.gh	Internet Source
49	Submitted to University of Greenwich	Student Paper
50	ijarjournal.com	Internet Source
51	jhas-nu.in	Internet Source
52	Submitted to The University of the West of Scotland	Student Paper
53	ir.aamusted.edu.gh	Internet Source
54	newsghana.com.gh	Internet Source
55	www.suaire.sua.ac.tz	Internet Source
56	Submitted to Napier University	Student Paper
57	Submitted to Wright State University	Student Paper
58	bmcprimcare.biomedcentral.com	Internet Source
59	courseworkwriting459.blogspot.com	Internet Source
60	Submitted to De La Salle University - Manila	Student Paper
61	Submitted to Universiti Selangor, Bestari Jaya Campus	Student Paper
62	Submitted to University of Sydney	Student Paper

63 Wajeeha Ali, Faiqa Imran, Muhammad Amir Hamza, Faizur Rehman, Alishba Khan, Sidra Kaleem, Zakir Khan. "Perception of Assisted Reproductive Technology Among Infertile Married Couples and Stress Faced due to Infertility in Pakistan: A Cross-Sectional Study", Springer Science and Business Media LLC, 2025
Publication

64 sparklyn.com.ng
Internet Source

65 www.coursehero.com
Internet Source

66 www.dovepress.com
Internet Source

67 www.readkong.com
Internet Source

68 Submitted to Al-Madinah International University (MEDIU)
Student Paper

69 Brimble, Gwendolyn. "Exploring Cross-Cultural Burnout Symptoms in Mental Health Professionals in the USA and Greece", The Chicago School of Professional Psychology
Publication

70 Narhari Timilshina, Henriette Breunis, Shabbir Alibhai. "Impact of androgen deprivation therapy on depressive symptoms in men with nonmetastatic prostate cancer", Cancer, 2012
Publication

71 Submitted to Universiteit Hasselt
Student Paper

72 Submitted to University of Hertfordshire
Student Paper

73 continentalhospitals.com
Internet Source

74 docplayer.net
Internet Source

75 files01.core.ac.uk
Internet Source

76 pmc.ncbi.nlm.nih.gov
Internet Source

77 www.jriiejournal.com
Internet Source

78 www.medrxiv.org
Internet Source

79 Submitted to Daystar University
Student Paper

80 ignited.in
Internet Source

81 iiardjournals.org
Internet Source

82 repository.uniben.edu
Internet Source

83 Submitted to Teesside University (Blackboard Ultra)
Student Paper

84 bmcmededuc.biomedcentral.com
Internet Source

85 dspace.unza.zm
Internet Source

86 ijhmr.com
Internet Source

87 www.iisrr.in
Internet Source

Exclude quotes	On	Exclude matches	< 10 words
Exclude bibliography	On		