EFFECTS OF AFRICAN UNION MISSION DEPLOYMENT ON MENTAL HEALTH OF KENYAN SOLDIERS IN SOMALIA

Prince Okioma Nyanumba

A Thesis submitted in partial fulfilment of the requirements for the award of the degree of Master of Governance Peace and Security in the department of Governance Peace and Security and the School of Humanities and Social Sciences of Africa Nazarene University

June 2026

DECLARATION

I declare that this document and the research that it describes are my original work and that they have not been presented in any other university for academic work.

Name: Prince Okioma Nyanumba

22j01dmgp026

_____ 30/06/2026

Student signature Date (dd/mm/yyyy)

This research was conducted under our supervision and is submitted with our approval as university supervisors.

Supervisor name: Dr. Priscilla Mugambi, Ph.D.

_____ 30/06/2026

University supervisor signature Date (dd/mm/yyyy)

Supervisor name: Dr. John R. Kisilu, Ph.D.

_____ 30/06/2026

University supervisor signature Date (dd/mm/yyyy)

DEDICATION

I dedicate this thesis to my supervisors, capable lecturers, parents, and my spouse. They all proved to be a great blessing for me throughout the entire research process. May the LORD bless them generously.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ABSTRACT

Deployment in peace support operations exposes soldiers to prolonged stress, traumatic events, and demanding operational environments that may affect their mental health. Despite Kenya's significant contribution to the African Union Mission in Somalia (AMISOM), there is limited context-specific empirical evidence on the mental health effects of such deployments on Kenya Defence Forces (KDF) personnel. This study therefore examined the effects of African Union Mission deployment on the mental health of Kenyan soldiers serving in Somalia. Specifically, the study examined the psychosocial effects of deployment, determined the prevalence of post-traumatic stress disorder (PTSD), assessed substance use patterns as coping mechanisms for stress, and evaluated the interventions used by the KDF to manage mental health challenges among deployed soldiers. The study adopted a descriptive survey design integrating both quantitative and qualitative approaches and was guided by Cognitive-Behavioral Theory and Humanistic-Existential Theory. The study targeted 520 Kenya Defence Forces soldiers stationed at Langata Barracks who had deployment exposure under AMISOM. Demographic factors such as age, gender, and years of service were examined in relation to mental health outcomes. A sample size of 226 respondents was determined using the Yamane sample size formula and selected through stratified random sampling. Data were collected using self-administered questionnaires containing both closed-ended and open-ended questions. Quantitative data were analyzed using descriptive statistics, while qualitative data obtained from the open-ended responses were analyzed through thematic analysis to identify recurring patterns related to soldiers' psychological experiences and their perceptions of available mental health support. The findings revealed that 9% of respondents exhibited symptoms consistent with PTSD, 16% demonstrated problematic substance use patterns requiring further evaluation, and 23% reported psychosocial effects associated with deployment, including anxiety, sleep disturbances, and emotional strain. Furthermore, only 8% acknowledged the availability of mental health support mechanisms, while 25% were aware of existing mental health facilities, suggesting gaps in perceived accessibility and utilization of mental health services. The results also indicated that awareness and availability of mental health support mechanisms among soldiers remained limited. Although many soldiers appeared to cope with deployment demands, the study established that deployment under the African Union Mission in Somalia had notable psychological effects on a segment of Kenyan soldiers. The study concludes that deployment under the African Union Mission in Somalia has measurable psychological effects on a portion of Kenyan soldiers, exacerbated by operational pressures, stigma associated with seeking psychological support, and gaps in institutional mental health interventions. The study recommends strengthening policy frameworks governing military deployment and mental health through mandatory psychological screening before and after deployment, improved access to counseling services, structured reintegration programs, leadership training on psychological welfare, and strengthened family support systems to enhance psychological resilience and operational readiness among soldiers.

ACKNOWLEDGEMENT

I thank the Almighty God for granting me the strength, wisdom, and perseverance to complete this study. I am deeply grateful to my supervisors for their professional guidance, constructive feedback, and continuous academic support throughout the development of this research, particularly in refining the research design, methodology, and interpretation of findings. I also sincerely appreciate Africa Nazarene University for providing the academic environment and institutional support necessary to undertake this study, and the National Commission for Science, Technology and Innovation (NACOSTI) for granting the research permit that made the fieldwork possible. My special appreciation goes to the Kenya Defence Forces for authorizing the research, and to the officers and soldiers stationed at Langata Barracks who willingly participated in the study by completing questionnaires and sharing their experiences, which provided the primary data for this research. I am also grateful to the individuals who assisted in facilitating access to respondents and coordinating the distribution and collection of questionnaires during the data collection process. Finally, I extend my heartfelt gratitude to my family and close friends for their encouragement, patience, and unwavering moral support throughout the period of my study and research.

OPERATIONALIZATION OF KEY TERMS

Combat Exposure: Direct or indirect exposure to life-threatening events during deployment in Somalia, measured through respondents' self-reported experiences of hostile attacks, witnessing injuries or deaths, and operating in high-risk environments.

Coping Mechanisms: Strategies adopted by soldiers to manage stress associated with deployment, assessed in this study primarily through reported substance use behaviors measured using the Drug Abuse Screening Test (DAST-10).

Deployment: Assignment of Kenya Defence Forces soldiers to operational duties under the African Union Mission in Somalia in Somalia, measured through respondents' self-reported deployment status and duration of service in the mission area.

Mental Health: The psychological and emotional condition of soldiers following deployment, assessed through indicators such as psychosocial effects, PTSD symptoms, and substance use patterns.

Mental Health Interventions: Institutional measures implemented by the Kenya Defence Forces to support soldiers' psychological well-being, measured through respondents' perceptions of the availability of counseling services, mental health facilities, and support mechanisms.

Post-Traumatic Stress Disorder (PTSD): Trauma-related psychological symptoms resulting from exposure to stressful events during deployment, measured using the Impact of Event Scale–Revised (IES-R).

Psychosocial Effects: Emotional and behavioral responses to deployment stress, measured through reported experiences such as sleep disturbances, panic reactions, loss of self-confidence, and survivor guilt.

Substance Abuse: Use of non-prescribed drugs as a coping response to deployment-related stress, measured using the Drug Abuse Screening Test (DAST-10).

Terrorism: Violent acts or threats by extremist groups in Somalia that expose deployed soldiers to combat-related stress and traumatic experiences during operations.

Veteran: A Kenya Defence Forces soldier who has previously served in deployment under AMISOM and has since returned from the mission area.

LIST OF ACRONYMS AND ABBREVIATIONS

AMISOM – African Union Mission in Somalia

AU – African Union

DAST – Drug Abuse Screening Test

DSM – Diagnostic and Statistical Manual of Mental Disorders

GWOT – Global War on Terror

ICG – International Crisis Group

IED – Improvised Explosive Device

IES-R – Impact of Event Scale-Revised

IOM – Institute of Medicine

KDF – Kenya Defence Forces

KR – Kenya Rifles

MAB – Moi Air Base

NACOSTI – National Commission for Science, Technology and Innovation

PTSD – Post-Traumatic Stress Disorder

SUD – Substance use Disorder

TBI – Traumatic Brain Injury

VHA – Veterans Health Administration

WHO – World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter lays the groundwork for the study by outlining the background of the research problem and the context in which it is undertaken. It presents the problem statement, the purpose of the study, as well as the research objectives and questions that guide the inquiry. In addition, the chapter highlights the significance of the study, its scope, delimitations, limitations, assumptions, and the theoretical and conceptual frameworks that support the research.

1.2 Background to the Study

Amid global peacekeeping operations, the psychological well-being of deployed soldiers stands out as a vital, though frequently neglected, factor in maintaining international security and humanitarian initiatives (McCabe, 2021). According to the Mental Health Foundation, an individual's capacity to cope with adversity is largely shaped by their perceptions and attitudes toward themselves and life in general. Mental health influences one's ability to function effectively, take advantage of opportunities, and maintain meaningful relationships with family, friends, and colleagues. Consequently, Dinesh, Alex, and Norman (2013) define mental health as a state of balance in which a person is at ease with themselves and capable of meeting both basic needs and higher-level responsibilities.

Mental health disorders constitute a significant public health concern, particularly in the WHO European Region, where they are the leading cause of disability and the third-largest contributor to overall disease burden after cancer and cardiovascular illnesses, as measured by disability-adjusted life years (Charlson, 2024). Individuals experiencing mental illness often struggle to perform routine activities and maintain independence, making it difficult to live with dignity. Poor mental health can limit educational attainment, employment opportunities, and social participation. Rohlfs (2010) observed that American policymakers and media have increasingly focused on the experiences of soldiers involved in the War on Terror, with some portraying mental health challenges as a new battlefield

faced by deployed personnel. This heightened awareness has contributed to increased disability compensation among veterans (Sommers, 2019).

In recent years, various stakeholders have shown growing concern for the mental health of military personnel, particularly those serving in conflict zones and those returning from such missions. Prolonged exposure to hostile environments places soldiers at high risk of developing conditions such as depression, anxiety, and post-traumatic stress disorder, among other related illnesses (Charlson, 2024).

Despite its importance, the mental health of soldiers in combat zones often receives insufficient attention, even though it has far-reaching consequences for both individuals and society. Deployment requires soldiers to operate away from their home bases, exposing them to increased risks of physical harm and psychological strain (McCabe, 2021). Experiences of combat and other stressors can lead to behavioral and emotional challenges, including post-traumatic stress disorder (PTSD). These issues represent indirect costs of military deployment that are frequently overlooked during planning processes (Martin, Trine, Anne, & Klint, 2018).

There has been a steady increase in mental health challenges among soldiers returning from combat missions, alongside enduring long-term effects of deployment-related stressors. Factors such as exposure to violence, constant threats to life, separation from loved ones, and the stigma surrounding mental health within military institutions exacerbate these challenges. If left unaddressed, these conditions can result in substance abuse, family conflicts, criminal behavior, and even suicide (Herman, 2020).

For instance, during major military engagements involving U.S. forces in Iraq, Afghanistan, and Syria, considerable attention has been directed toward improving the mental well-being of soldiers (Hoge, 2020). Although efforts have been made to enhance care, many service members still do not receive adequate treatment due to limited resources, stigma associated with seeking help, and logistical barriers in conflict zones. The U.S. military has also implemented post-deployment evaluations, peer support systems, and mobile mental health services to assist returning personnel. However, such interventions remain underdeveloped in many peacekeeping missions, particularly in

Africa, where logistical and cultural constraints hinder effective service delivery. As a result, prioritizing the mental health of soldiers—especially those engaged in prolonged deployments remains a critical concern for international peacekeeping efforts worldwide (Herman, 2020).

In Africa, the mental health challenges that soldiers assigned on peacekeeping missions face are typically worsened by the region's complex geopolitical reality and limited mental health infrastructure. Fortunately, the African Union (AU) is becoming more responsible for managing peacekeeping operations across the continent, particularly the African Union Mission in Somalia (AMISOM). In as much as African peacekeepers' mental health has received less attention than in other parts of the world, tremendous progress has been made in addressing peacekeepers' physical and operational concerns. The limitations in mental health support is attributable to a lack of professional mental health care, the stigma attached to mental illness in African countries, and cultural barriers that prevent soldiers from seeking treatment, (Union., 2020).

The mental health consequences of deployments in African peacekeeping missions are shaped not only by combat stress but also by the unique challenges of working in dangerous, post-conflict environments. African soldiers deployed to crisis zones like Somalia experience not just the normal stresses of battle but also the challenges of operating in an unsecured, usually chaotic environment with little resources. Furthermore, African peacekeepers usually face challenges such as a lack of familial support, low morale, and inadequate post-deployment care, all of which lead to poor mental health. Many African troops who served in peacekeeping missions experienced major mental health issues such as PTSD, depression, and anxiety but were hesitant to seek professional help due to stigma, (Mwangi & Ndirangu, 2022).

Furthermore, African peacekeepers, notably those deployed under the African Union Mission in Somalia, often operate under conditions that increase psychological stress, including harsh weather, long working hours, and the constant threat of violent attacks. These operational challenges, combined with limited psychological support and inadequate post-deployment care in some contexts, make African peacekeepers particularly vulnerable

to mental health difficulties. Evidence from different African troop-contributing countries demonstrates variation in the availability and effectiveness of mental health support programs. For instance, studies on Ugandan and Kenyan forces indicate that some structured counseling and psychological support initiatives have been introduced for deployed soldiers, although access and implementation remain inconsistent. In contrast, research on peacekeepers from countries such as Ethiopia and Burundi has highlighted more limited institutional mental health support systems and fewer structured post-deployment rehabilitation programs for returning personnel (Mwangi & Ndirangu, 2022; Al-Shaikh, 2021). These differences across troop-contributing countries illustrate that the effectiveness of mental health support for African peacekeepers is uneven across the continent, reinforcing the need for a more coordinated and comprehensive approach to mental health care for soldiers participating in peacekeeping missions (Greenberg, 2020).

Any military deployment is frequently linked to a higher chance of unfavorable effects on troops' mental health. The deployment of the soldiers under the Africa Mission in Somalia (AMISOM) brought with it a variety of mental health issues. Numerous causes contributed to this, the majority of which were active throughout the soldier's deployment. Combat hardship, experiencing danger, and other adversities during deployment contributed negatively on troops' mental stability. (Peter, Cristina, Stephen, and Eva, 2021).

Operation Linda Nchi, which was carried out by the KDF, was intended to be a means of ending the two-decade battle in Somalia, which began in 1992 with the overthrow of Mohammed Siad Barre. Never had Kenya deployed its armed forces to fight abroad post-independence. A string of terror attacks in Kenya and the abductions of tourists in the Kenyan coast and Dadaab forced this abrupt shift from the customary low-level UN peacekeeping missions. To stop Al-Shabaab militants from invading Kenya, Kenya launched a military intervention in Somalia with the goal of establishing a buffer area spanning more than 70 miles on the Somali side of the international boundary. The pre-deployment stressors that personnel saw just before deployment during the first phase of deployment in Somalia were related to worries about the welfare and safety of their families. The soldiers did not give the families enough time to prepare for the operation before rushing across the border into Somalia. In addition, soldiers were concerned for

their own and their families' survival due to grenade strikes on civilians (International Crisis Group, 2012).

During the early phases of their deployment, the Kenya Defense Forces troops in Somalia were impeded by persistent downpours. The terrorists also injured and murdered several Kenyan soldiers using improvised explosive devices (IEDs). In addition to mission uncertainty, additional significant stressors experienced during the initial deployment included inclement weather, a demanding schedule, not wrapping up personal commitments in time for deployment, missing out on educational opportunities for some of the personnel, inadequate family preparation for deployment, being away from friends and family, and concerns about family duties and responsibilities. The primary stresses were discovered to be boredom, loneliness, poor hygiene, a lack of free time, and limited activity after three months of the process. With a particular focus on the Kenya Defense Force, this study aims to ascertain the effects of military deployment on soldiers' mental well-being in conflict-prone locations.

Evidently, Kenya as one of the major contributors to AMISOM, faces its own unique set of challenges when it comes to the mental health of soldiers deployed to Somalia. The Kenyan Defense Forces (KDF) were instrumental in AMISOM's operations, but the mental health of Kenyan soldiers remains a significant concern. Like their counterparts in other African nations, Kenyan soldiers are exposed to traumatic events, including combat, exposure to death and injury, and the harsh realities of operating in a war-torn environment. Studies have shown that the psychological toll of these experiences on Kenyan soldiers can be profound, leading to long-term mental health issues such as PTSD, depression, and anxiety. However, the availability of mental health services within the Kenyan military is limited, and many soldiers do not receive adequate psychological care during or after deployment, (Sommers, 2019).

The stigma surrounding mental health within the Kenyan military is another critical issue that prevents soldiers from seeking help. Mental health problems are often seen as a weakness within the military context, which discourages soldiers from discussing their struggles. This cultural stigma, combined with the lack of mental health resources and

training for officers to recognize and address mental health issues, has led to a situation where many Kenyan soldiers deployed to Somalia suffer in silence. The lack of post-deployment mental health support also exacerbates the problem, as many soldiers return home without receiving the care they need to cope with the trauma experienced during their deployment, (Smith et al., 2021).

In response to these challenges, there have been some efforts by the Kenyan government and the KDF to address the mental health of soldiers. For instance, the KDF has begun to integrate mental health awareness into their training programs, and there are efforts to provide counseling services to soldiers both during and after deployment. However, these initiatives are still in their infancy, and the overall mental health care infrastructure remains insufficient. To better address the mental health needs of Kenyan soldiers, there is a need for a more robust and comprehensive approach that includes regular psychological evaluations, culturally sensitive mental health care, and greater support for soldiers' families. By improving mental health support for peacekeepers, Kenya can ensure the well-being of its soldiers and enhance the overall effectiveness of its contributions to AMISOM, (Jones & Berman, 2022). This study therefore seeks to determine the prevalence of post-traumatic stress disorder among the Kenyan Soldiers deployed in the Africa Union Mission in Somalia and assess the mental health effects of Kenyan soldiers' deployment in the Africa Union Mission in Somalia. The study also examined the types of substances abused by Kenyan soldiers during their deployment in the Africa Mission in Somalia as well as evaluate the interventions used by Kenya Defense Forces to manage mental health problems among Kenyan soldiers deployed by the Africa Union Mission in Somalia.

Mental health challenges faced by soldiers deployed in AMISOM have far-reaching consequences for the country at large. The long-term psychological impact on veterans can strain healthcare systems, particularly if there is inadequate provision for mental health services. Additionally, untreated mental health issues can result in reduced military readiness, with soldiers suffering from conditions that impair their ability to perform effectively (Brancu, 2017). The broader societal implications include increased rates of homelessness, substance abuse, and social isolation among veterans, further exacerbating the burden on public services (Hoge *et al*., 2016). Therefore, addressing the mental health

needs of deployed soldiers is not only crucial for their well-being but also for the stability and security of the nation, which can suffer from the unintended consequences of untreated mental health problems among its service members.

Governments have been urged to provide serving members with timely and appropriate mental health treatment services due to growing awareness of the scope and effects of mental health issues among policymakers, scholars, military leadership, and the public (Hoge *et al*., 2016; Zamorski *et al*., 2016). Numerous factors impact the mental well-being of soldiers in the Kenyan defense force. There are many cases where these professionals commit suicide or take the lives of those they love, have depression, anxiety attacks, PTSD, and sometimes even break their relationships with their loved ones. According to Max Bearak's article on The Washington Post on April 2019, one of the retired military psychologists admits to having interacted with more than 800 soldiers who suffered from PTSD symptoms. The soldiers usually encounter numerous challenges, especially those who strive for peace in Somalia. For example, post-traumatic stress disorder may arise from the stress of combat itself. Experiencing violent deaths, physical abuse or torture, rape, imprisonment as refugees or POWs, living around dead and decomposing bodies, and having little resources are among the additional challenges (Zefferman, 2021).

1.3 Statement of the Problem

Deployment to conflict zones such as Somalia exposes soldiers to prolonged stress, traumatic events, and demanding operational conditions that may negatively affect their mental health. Kenyan soldiers deployed under the African Union Mission in Somalia (AMISOM) operate in high-risk environments characterized by exposure to violence, the constant threat of attack, separation from family, and harsh living conditions. These experiences can lead to mental health challenges such as post-traumatic stress disorder (PTSD), anxiety, depression, and substance use. Although the Kenya Defence Forces (KDF) have introduced measures such as pre-deployment briefings, counseling services, and support through military medical facilities, concerns remain regarding the adequacy, accessibility, and effectiveness of these mental health interventions for deployed soldiers.

Previous studies have documented the psychological effects of military deployment in conflict environments. For example, Charles W. Hoge (2020) found that soldiers deployed in Iraq and Afghanistan experienced significant levels of PTSD and other psychological disorders following exposure to combat stress. Similarly, Mwangi and Ndirangu (2022) reported that African peacekeepers deployed in conflict zones experience considerable mental health challenges, but many hesitate to seek professional support due to stigma and limited mental health infrastructure.

Despite these findings, limited empirical research has examined the specific mental health experiences of Kenyan soldiers deployed under AMISOM and the adequacy of the interventions provided to support them. Most existing studies focus on Western military contexts or broader African peacekeeping operations without addressing the unique operational and institutional realities of the Kenya Defence Forces. This study therefore sought to examine the effects of African Union Mission deployment on the mental health of Kenyan soldiers in Somalia and to evaluate the effectiveness of the interventions used to manage these mental health challenges.

1.4 Purpose of the Study

The purpose of this study was to analyze how deployment to the Africa Union Mission in Somalia (AMISOM) affects soldiers' mental health.

1.5 Objectives of the Study

The objectives of the study were:

1. To examine the psychosocial effects of deployment among Kenyan soldiers deployed by the Africa Union Mission in Somalia (AMISOM).

2. To determine the prevalence of PTSD among Kenyan soldiers deployed by the Africa Union Mission in Somalia.

3. To assess the use of substances as coping mechanisms for stress, among Kenyan soldiers deployed by the Africa Union Mission in Somalia (AMISOM).

4. To evaluate the interventions used by KDF to manage mental health problems among Kenyan soldiers deployed by the Africa Union Mission in Somalia (AMISOM).

1.6 Research Questions

1. What are the psychosocial effects of deployment among Kenyan soldiers deployed by the Africa Union Mission in Somalia (AMISOM).

2. How often does PTSD occur among the soldiers deployed in the Somali African Mission?

3. What substances are used as coping mechanisms for stress, among Kenyan soldiers deployed by the Africa Union Mission in Somalia (AMISOM)?

4. What are the interventions used by KDF to manage mental health problems among Kenyan soldiers deployed by the Africa Union Mission in Somalia (AMISOM)?

1.7 Significance of the Study

Serving KDF soldiers, KDF veterans, serving soldiers and veterans family members, members of the society, government agencies, non-governmental bodies and the KDF administration will profit from the findings of the study about the impact of military deployment on soldiers' mental health.

The findings of this study will inform and enhance several critical policy areas concerning military deployment and mental wellness within the Kenya Defense Forces (KDF). The study will support the development of pre-deployment mental health screening to ensure that psychological vulnerabilities are identified prior to deployment. The study will influence the review of deployment rotation schedules, where shorter durations alongside longer recuperation periods will aid in reducing the accumulation of psychological stress. Post-deployment reintegration policies may also be strengthened, incorporating structured debriefing, mental health assessments, and family counseling to ease the transition back into non-combat settings. The study will reinforce the need for accessible, stigma-free mental health services, rehabilitation support for those dealing with post-traumatic stress disorder (PTSD) or substance abuse.

This study addresses a significant gap in the current understanding of the psychosocial effects of military deployment on Kenyan soldiers, a topic that has often been overlooked in both academic research and policy discourse. Through evidence-based insights, it offers a valuable foundation for policy formulation, enhancing the well-being and operational readiness of service members. Moreover, the study empowers soldiers and their families to recognize and plan for deployment-related mental health challenges, thus encouraging early intervention and better coping mechanisms. Ultimately, it supports a more comprehensive and humane approach to military readiness and veteran care.

1.8 Scope of the Study

This study examined the effects of deployment under the African Union Mission in Somalia on the mental health of Kenyan soldiers. Conceptually, the study focused on psychosocial effects of deployment, the prevalence of post-traumatic stress disorder (PTSD), substance use as a coping mechanism, and the mental health interventions available to soldiers. The population scope comprised soldiers of the Kenya Defence Forces who had previously served in Somalia under AMISOM for at least three months, a period considered sufficient for exposure to operational and psychological stressors associated with deployment. Geographically, the study was conducted at Langata Barracks, which hosts units of the Kenya Defence Forces that contribute personnel to AMISOM operations and accommodates soldiers both preparing for deployment and those returning from mission assignments. This made the barracks an appropriate and accessible location for identifying soldiers with prior AMISOM deployment experience while ensuring compliance with military access and security protocols. Temporally, the study focused on soldiers who had participated in AMISOM deployments prior to the study period, and data collection was conducted between January and March 2025. Soldiers who had never been deployed to Somalia and civilian personnel within the barracks were excluded from the study.

1.9 Delimitation

This study focused on examining the effects of deployment to Somalia on the mental health stability of soldiers serving under the African Union Mission in Somalia. The study was

limited to mental health outcomes such as psychosocial effects, post-traumatic stress disorder (PTSD), and substance use patterns among soldiers. Other challenges associated with military deployment, including resource constraints, diplomatic challenges, communicable diseases, and personnel turnover, were not examined because they fall outside the psychological focus of this research and would have significantly broadened the scope of the study.

The study was also limited to soldiers who had served in AMISOM operations for at least three months. This threshold was adopted because a minimum deployment period of three months was considered sufficient for soldiers to experience operational conditions and psychological stressors associated with deployment, thereby providing meaningful insights into mental health outcomes.

Additionally, the study did not involve direct fieldwork in Somalia. Instead, data were collected from soldiers stationed at Langata Barracks and from some deployed personnel through electronic questionnaires distributed via secure email and online survey platforms. The use of electronic data collection methods was necessary due to security restrictions, logistical constraints, and the operational sensitivity of accessing active military personnel in a conflict zone. These methods enabled the researcher to reach eligible respondents while maintaining confidentiality and minimizing disruption to ongoing military operations.

1.10 Limitations

One limitation of this study was restricted access to military personnel due to operational schedules and security protocols within the Kenya Defence Forces. Military personnel are often engaged in training activities, operational duties, or deployment preparations, which limited the researcher's ability to access all eligible respondents during the data collection period. This constraint could potentially affect the representativeness of the sample. To mitigate this limitation, the researcher coordinated with unit administrators to schedule appropriate times for questionnaire distribution and also used electronic questionnaires to reach some respondents who were not physically available at the barracks.

Another limitation was the reliance on self-reported data from respondents. Because the study involved sensitive issues related to mental health and deployment experiences, some participants may have been hesitant to disclose their experiences fully due to stigma, confidentiality concerns, or cultural norms within the military environment. This could affect the accuracy of some responses. To minimize this limitation, the researcher ensured anonymity by not collecting identifying information, emphasized confidentiality during data collection, and allowed respondents sufficient time to complete the questionnaires privately.

Additionally, the study was conducted among soldiers stationed at Langata Barracks, which may limit the generalizability of the findings to all Kenya Defence Forces personnel deployed under the African Union Mission in Somalia. Soldiers based in other military installations may experience slightly different operational conditions or support systems. However, Langata Barracks hosts personnel from multiple operational units, including soldiers who have previously served in AMISOM deployments. This diversity helped to provide a range of perspectives and partially mitigate the limitation related to geographic concentration of respondents.

1.11 Assumptions

This study assumed that respondents would provide truthful and accurate information regarding their experiences during and after deployment. To encourage honest responses, the researcher assured participants that their responses would remain confidential and anonymous. The study also assumed that the respondents had sufficient knowledge and personal experience related to deployment under the African Union Mission in Somalia (AMISOM) to enable them to provide relevant information for the study. Additionally, it was assumed that the participants understood the questions contained in the questionnaire and were able to respond appropriately based on their personal experiences. Finally, the study assumed that the respondents who met the inclusion criteria had experienced conditions associated with military deployment that could provide meaningful insights into the mental health experiences of soldiers deployed under AMISOM.

1.12 Theoretical Framework

This social science study examined how military deployment affects soldiers' mental health and was grounded in two theoretical frameworks. These are Humanistic existential theory and Cognitive-behavioral theory. These theories were used to contextualize the theoretical underpinnings that served as a guide for carrying out the study. While Cognitive Behavioral Theory explains how traumatic deployment experiences influence soldiers' thoughts, emotions, and behaviours, Humanistic Existential Theory focuses on the psychological needs of belonging, meaning, and support that influence recovery and resilience. Together, the two theories provide a complementary framework by addressing both the cognitive responses to trauma and the human need for psychological support and self-worth in coping with deployment-related stress.

In this study, Cognitive Behavioral Theory primarily informs the first three objectives, which examine psychosocial effects of deployment, the prevalence of PTSD, and substance use as coping mechanisms. These outcomes are closely associated with cognitive and behavioural responses to traumatic experiences. Humanistic Existential Theory, on the other hand, informs the fourth objective, which evaluates mental health interventions within the Kenya Defence Forces. This theory emphasizes the importance of social support, psychological well-being, and human dignity in addressing mental health challenges among deployed soldiers.

1.12.1 Cognitive–behavioral Theory (CBT) and Soldiers' Mental Health

Cognitive Behavioral Theory (CBT), developed by Aaron T. Beck in the 1960s, is a widely used psychological approach that emphasizes the interconnectedness of thoughts, feelings, and behaviours, proposing that individuals can alter their emotional responses and actions by changing their thought patterns. This approach is particularly relevant for understanding the psychological effects of high-stress environments. Historically, CBT has proven effective for individuals exposed to trauma, with research supporting its use in identifying PTSD risks and developing interventions to reduce post-trauma symptoms (Cusack, 2020). According to Novotney, CBT can lower suicidal thoughts and enhance coping strategies for individuals experiencing depression and PTSD, underscoring its importance in military

contexts. While implementing CBT in acute care settings poses challenges, its principles can be applied to create targeted interventions (Novotney, 2020).

CBT is grounded in the principle that distorted or unhelpful cognitive patterns such as catastrophizing, overgeneralization, and personalization can lead to maladaptive emotional and behavioural responses. These distortions are particularly relevant in high-stress environments like military deployments, where soldiers may internalize trauma or develop persistent negative beliefs about themselves, others, or the world. By applying CBT in the context of military mental health, therapists can help soldiers recognize and challenge these automatic thoughts, gradually shifting their interpretations toward more realistic and constructive perspectives. Additionally, CBT integrates exposure techniques that allow trauma survivors to confront and desensitize to distressing memories in a controlled manner. These structured, evidence-based strategies align closely with the goals of post-deployment mental health interventions, which seek not only symptom relief but also cognitive and emotional resilience (Regehr, 2021).

However, CBT has limitations when applied across diverse military populations. The reliance on verbal expression and insight may not align with the communication styles or cultural expectations of some soldiers, especially soldiers from collectivist backgrounds or those experiencing moral injury. CBT equally emphasizes individual responsibility for cognitive change, which may minimize the structural and systemic aspects of trauma exposure for instance organizational betrayal or limited reintegration support initiative. In acute post-deployment phases, where emotional dysregulation is high and trust in authority figures may be low, CBT's structured and cognitive-heavy model may not be immediately accessible or effective. Thus, while CBT remains a powerful tool in trauma-focused therapy, its implementation must be carefully adapted and often complemented by other therapeutic modalities such as Eye Movement Desensitization and Reprocessing (EMDR) or narrative therapy to meet the complex needs of military personnel (Bentley, 2020).

CBT offers a valuable framework for exploring how soldiers' cognitive processes are shaped by their deployment experiences. Techniques such as cognitive restructuring and

behavioural activation can help identify negative thoughts and maladaptive behaviours arising from combat exposure.

1.12.2 Humanistic Theory and Soldiers' Mental Health

Humanistic Theory was developed in the mid-20th century as a response to the perceived limitations of psychoanalytic and behaviorist approaches, which were seen as overly deterministic and neglectful of individual agency. It was pioneered by Carl Rogers in the 1950s and Abraham Maslow in the 1940s, both of whom emphasized the importance of understanding individuals through their subjective experiences. Rogers introduced the person-centered approach, which focuses on empathy, authenticity, and unconditional positive regard, while Maslow is best known for his hierarchy of needs, which outlines the stages of human motivation leading to self-actualization (Robbins, 2021).

Humanistic Theory emphasizes understanding individuals' subjective experiences and perspectives, focusing on concepts like self-concept, personal growth, and self-actualization. According to (Joseph, 2020), by highlighting empathy, authenticity, and unconditional positive regard, the theory helps researchers explore the effects of social support and meaningful connections on mental health. The theory also stresses self-awareness and personal agency as key factors in fostering resilience. By investigating how people find meaning in their roles and navigate different stressors, researchers can identify factors contributing to mental health stability. The existential aspect of Humanistic Theory underscores the pursuit of meaning, crucial for attempting to make sense of traumatic events. Humanistic and existential therapies can aid individuals in reframing their trauma, promoting healing and self-cohesion (Pitchford, 2018).

Humanistic Theory, particularly through Rogers' concept of unconditional positive regard and Maslow's hierarchy of needs, provides a useful structure for assessing soldiers' psychological well-being in high-stress environments. When deployed in hostile settings like deployment in Somalia, soldiers often face threats not only to physical safety but also to their self-concept and sense of purpose. Humanistic Theory asserts that for individuals to thrive psychologically, they must feel valued, understood, and connected. In deployment, the disruption of these core needs such as belonging, esteem, and self-

actualization can lead to psychological instability. By applying Humanistic principles, researchers can examine how unmet psychological needs contribute to emotional distress, and how fulfilling these needs through social support, leadership empathy, and role clarity can enhance resilience and promote mental health stability among deployed personnel (Proctor, 2021).

However, Humanistic Theory is not without limitations, especially in the context of military mental health. Critics argue that its emphasis on individual experience and self-actualization may overlook structural and cultural factors that shape mental health outcomes in military contexts. For example, the collectivist orientation, chain of command, and rigid operational frameworks of military life may clash with the theory's focus on autonomy and self-directed growth. Additionally, Humanistic approaches tend to prioritize verbal expression and introspection, which may not be feasible for soldiers experiencing acute trauma or those from cultural backgrounds where emotional expression is restrained. These constraints suggest that while Humanistic Theory offers valuable insights, it should be integrated with other frameworks such as trauma-informed care or cognitive approaches to fully address the complex and multifaceted nature of soldiers' psychological responses to deployment (Schneider, 2022).

Nonetheless, soldiers in conflict zones often experience isolation and emotional distress, making it essential to understand their emotional needs to develop effective interventions. This framework is particularly valuable for examining how soldiers cope with the stress and trauma of deployment. Overall, Humanistic Theory is relevant for understanding soldiers' mental health stability during deployment in Somalia, offering insights into their coping mechanisms and informing tailored support systems.

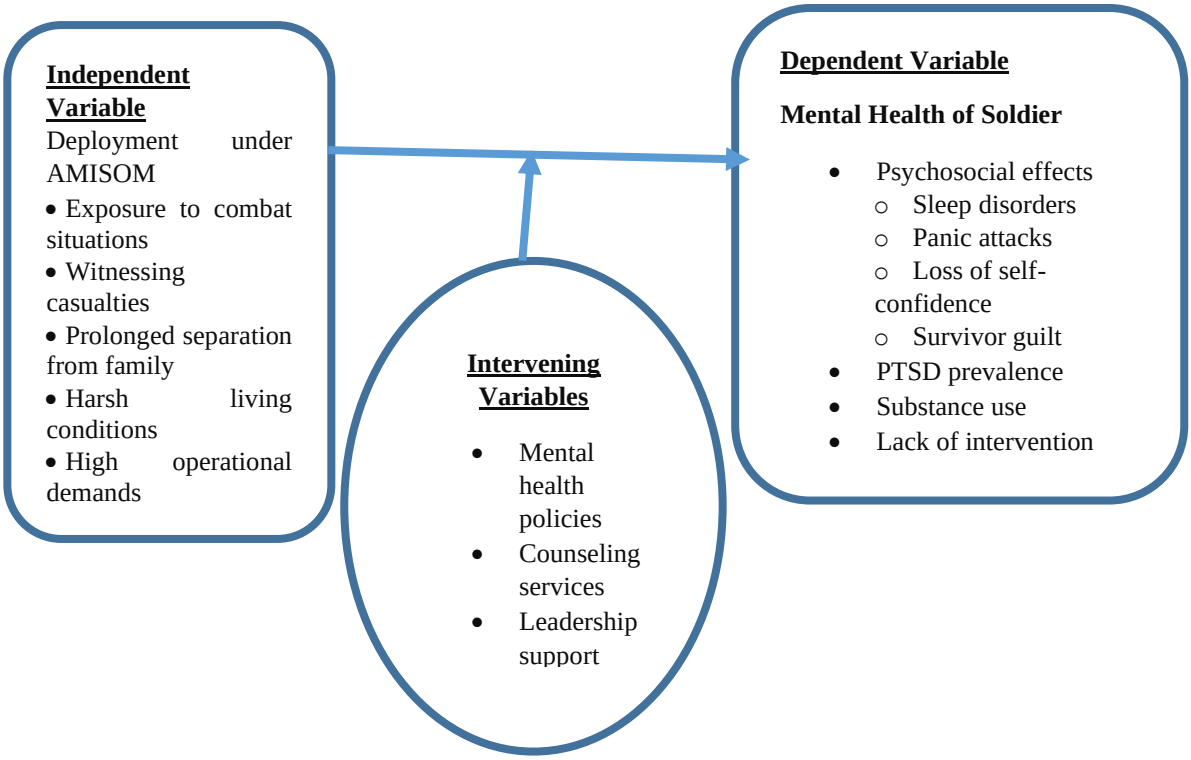
1.13 Conceptual Framework

The deployment of soldiers in the combat zone is the independent variable according to the suggested conceptual framework since its variation is independent of the dependent variable. Therefore, the soldiers will be deployed regardless of the outcome of their mental health. The existence or lack of linked constructs such as PTSD, anxiety disorders, substance use disorders, and psychological issues (loss of hopelessness, lack of confidence)

was used to measure mental health, which is the dependent variable. A soldier's mental health stability during and even after deployment, however, may depend on several intervening factors, including pre-deployment training, psychological assistance prior to, during, and after deployment, relief plans during deployment, and suitable intervention plans. Recommendations for improving mental health support and intervention strategies should be based on the identified relationships and findings from the study.

The main idea of the study is shown diagrammatically below. It originates from the applied theoretical frameworks, the literature studies, and the conceptions of the researcher. This theory contends that there is a connection between the mental wellness of soldiers and their deployment. Serving in the military is a demanding job that occasionally leads to mental health problems. There is a connection between soldiers' mental health and their military assignment, as represented in Figure 1.1.

Figure 1.1: Conceptual Framework



1.14 Chapter Summary

This chapter provided the foundation for the study by presenting the background and context of the research on the effects of African Union Mission deployment on the mental health of Kenyan soldiers in Somalia. The chapter outlined the statement of the problem, the purpose of the study, research objectives, and research questions that guided the investigation. It also discussed the significance of the study, scope, delimitations, limitations, and assumptions that framed the research. In addition, the chapter presented the theoretical framework based on Cognitive Behavioral Theory and Humanistic Existential Theory, as well as the conceptual framework illustrating the relationship between deployment and soldiers' mental health outcomes. The next chapter reviews relevant literature related to military deployment and mental health, examining previous empirical studies, theoretical perspectives, and existing knowledge gaps that informed the present study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides an overview of previous studies relevant to the research topic. It analyzes and synthesizes findings from various scholars at the global, regional, and local levels. The discussion is organized around key themes, including the theoretical framework of mental health and deployment, perspectives on mental health and deployment across different contexts, contributing factors, and existing interventions. The chapter is therefore structured into sections covering the theoretical review, summary of findings, and identification of knowledge gaps.

2.2 Review of Empirical Studies

This section reviews empirical studies related to the effects of military deployment on soldiers' mental health. The literature is organized according to the key themes derived from the study objectives and research questions, including psychosocial effects of deployment, prevalence of post-traumatic stress disorder (PTSD), substance use as a coping mechanism, and interventions used to address mental health challenges among deployed soldiers.

2.2.1 Psychosocial and Mental Health Effects of Soldiers' Deployment in Combat Zones

The mental and psychological consequences of military forces deployed to combat and conflict zones has tremendously attracted attention all over the world. This is as a result of the high incidence of mental health challenges following their end of deployment. Studies have pointed out that the stress, trauma, and dangers associated with combat deployment often led to disorders and challenges such as post-traumatic stress disorder (PTSD), anxiety, and depression (Hoge et al., 2023). Research points out that about 15% of military personnel retiring from conflict areas for instance Iraq and Afghanistan are often symptomatic of PTSD (Hoge *et al*., 2023). This points to the critical need for deliberate

steps towards mental health interventions with a special focus on both during and after deployment, to alleviate long-term psychological damages. Equally, traumatic experiences for instance, experiencing death or life-threatening occurrences often contribute to one witnessing anxiety, survivor guilt, emotional breakdown and distress. These encounters are likely to have long term effects on soldiers even after terminating their assignment in conflict and combat zones, (Melinda & Jeanne, 2023).

Mental and physical injuries directly affect the mental health difficulties encountered by military personnel. Injuries sustained during war, specifically those leading to lifetime disabilities for example amputations or traumatic brain injuries (TBI), leave soldiers susceptible to mental health conditions, including PTSD and depression. The emotional degradation from these injuries is often a direct response to the trauma and arises from a loss of identity and the loss of ability to continue performing military duties. Furthermore, these physical injuries will serve as unpleasant reminders of the traumatic occurrences, thereby compounding and intensifying the emotional strain of the soldiers, (Sanders et al., 2024).

The socio-economic ramifications of combat-related injuries continue to erode the mental health stability of the soldiers and therefore enhancing the struggles of veterans. According to research military reservists are likely to experience a huge drop in income after serving in the combat zones. Soldiers suffering from PTSD often face huge economic struggles (Loughran & Klerman, 2024). Economic strain, combined with emotional difficulties, ends up diminishing efforts towards reintegration. This leads to heightened distress. The stigma that comes with mental health issues in most military cultures can discourage veterans from seeking any help, delaying diagnosis and treatment, which further exacerbates their psychological struggles, (Heaton & Loughran, 2024).

In Africa, soldiers involved in peacekeeping and conflict operations face distinct mental health challenges due to the nature of the violence and peace missions they are tasked with. Peacekeepers in regions like Somalia, Sudan, and the Central African Republic frequently witness mass casualties and are exposed to constant threats of violence, which can result in severe psychological consequences. Constant threats of injuries or death associated with

volatility of combat situations, exposes soldiers to significant mental risks. For instance, soldiers deployed in conflict affected locations for example Somalia, always witnesses various attacks some of which ends up claiming the lives of colleagues. This can trigger immense feelings of anxiety, depression, and survivor guilt as the soldier's risk experiencing PTSD and other mental health challenges. The emotional toll of losing colleagues during combat is very intense in African military settings, where mental health support systems may be insufficient. The loss of fellow soldiers can lead to a mix of grief, guilt, and confusion, hindering a soldier's ability to process these emotions and heal psychologically. The manifestation of the mental strain comes in the form of depression, anger, and withdrawal. This has an overall effect of diminishing the soldiers' performance in current and even subsequent missions (Xia, 2024). In the African context where there is limited or total lack of elaborate psychological support during and after deployment, the psychological consequences are immense. The long-term effect is enhanced effects of mental complications for example PTSD, (Mutiso, 2024).

Most African military units struggle to provide adequate mental health care. This lack of mental health care and support is one of the factors compounding to mental health challenges faced by soldiers during and after combat deployment. In many African countries, limited economic resources, inadequate governance and corruption has led to underfunded mental health services for soldiers. There is a general absence of psychological care and support. This shortcoming alongside insufficient professional capacity of personnel in mental health care leads to vulnerabilities when addressing troops' mental health needs. This means that many troops that have witnessed psychological trauma never receive the essential support (Camille and Kathrin, 2024).

One of the major psychological strains that combatants in active deployment face is the process of being part of or witnessing the fatalities of comrades. The trauma associated with these experiences, combined with feelings of survivor guilt, can lead to anxiety and depression. Subsequently, "survivor guilt" becomes a usual reaction among the affected personnel who have witnessed their own or comrades' injuries and deaths. The effects are always persistent, even beyond the deployment period. Consequently, the intense

emotional burden of such encounters can lead to chronic issues, such as depression, suicidal thoughts, and substance abuse, (Melinda & Jeanne, 2023).

Kenyan Defense Forces (KDF) soldiers, especially those engaged in peacekeeping operations under AMISOM, are exposed to high-stress, unpredictable combat scenarios that lead to PTSD, depression, and anxiety. Soldiers deployed in conflict zones such as Somalia face similar mental health challenges, but these are often compounded by unique cultural and societal factors. For instance, during the Battle of Busaar in Somalia, being among the first attacks on the KDF soldiers, the soldiers witnessed the death of a comrade during a surprise attack. This led to significant emotional distress among the troops. The KDF soldiers deployed in high-risk environments are often separated from their families for extended periods. This implies that there will be a lack of regular communication with loved ones. Coupled with the harsh realities of deployment, these factors can exacerbate the mental health challenges. The feeling of isolation that comes with it is another challenge that negatively impacts the soldiers' mental wellbeing. The absence of strong support networks during deployment, coupled with the lack of post-deployment counseling, leaves many soldiers vulnerable to ongoing psychological difficulties, (Mutiso, 2024).

The mental health challenges facing soldiers during deployment in combat zones as well as those returning from combat zones are a global issue. These challenges are not confined to the soldiers only; they immensely extend to their families and even communities. Whether its military personnel returning from high-intensity combat zones like Iraq or Afghanistan, peacekeepers in Africa, or Kenyan soldiers in Somalia, the mental health impact is significant. Effective mental health care, early intervention, and support systems are vital in mitigating the long-term consequences of deployment-related trauma. Soldiers are required to successfully transition back into civilian life with the proper care and resources they need post deployment. This research seeks to explore similar mental health challenges faced by Kenyan troops, with a special focus on identifying possible strategies to enhance mental health support for military personnel and their families.

2.2.2 Prevalence of Post-Traumatic Stress Disorder (PTSD)

Post-Traumatic Stress Disorder (PTSD) can be described as a psychological condition that is brought about by witnessing or exposure to traumatic events. These are events that are normally very disruptive to an individual, for example, war, sexual assault, natural disasters, accidents, or violence. Post-Traumatic Stress Disorder affects approximately 3.9% of the global population. Gender wise, women being more likely to develop the disorder than men ((WHO), 2022). While some populations may have a greater predisposition to PTSD due to several factors, access to mental health support facilities and social support services also plays a significant role in the severity of the disorder. Whereas the risk of PTSD is witnessed by individuals who have experienced direct or indirect exposure to life-threatening events, such prevalence is often influenced by several factors. For example, the nature of the trauma witnessed, cultural considerations of mental health, individual resilience, prior simulated or actual exposure to similar events, among others. Research indicates that women are more prone to PTSD as compared to men, (Kessler, Petukhova, & Sampson, 2020).

The documentation of PTSD varies the world over. In contrast to developing countries, the documentation of PTSD is often more detailed in developed countries. The most documented cases are mainly those related to war, sexual violence, and traumatic accidents. Whereas the probability of exposure to PTSD is often higher with certain sections of society, according to the National Comorbidity Survey in the U.S., approximately 8.3% of the population is likely to experience PTSD in their lifetime. Veterans who have served in the conflicts of Iraq and Afghanistan exhibit particularly high rates of PTSD, with studies suggesting that nearly American soldiers who served previously in foreign deployments, particularly in Iraq and Afghanistan, are some of the personnel found to exhibit high rates of PTSD. According to studies, approximately 20% of soldiers are diagnosed with this illness after completing their duty in such regions. Similarly, sexual trauma is a substantial risk factor for PTSD, with survivors of rape and childhood abuse having higher rates of diagnosis (Breslau, 2019). The high incidence in these categories emphasizes the need for focused mental health interventions to help afflicted people, (Breslau, 2019).

It is worth noting that PTSD is not confined to any region or countries. PTSD it affects people all over the world, whereby those in developing countries are most affected due to limited mental health care support and services. Nonetheless, PTSD is more common in areas with political instability, persistent conflict, and displacement because of the compounded trauma experienced by people who have been exposed to violence, poverty, and loss for an extended period. According to a study conducted by (Al-Saadi, 2021), Syrian refugees, many of whom fled to neighboring countries, have recorded PTSD rates in the upwards of 40%. Out of this study, it was discovered that there is a high heterogeneity associated with nature and length of trauma exposure. Similarly, research in Southeast Asia has found PTSD prevalence rates of up to 30% among people affected by natural disasters, underlining the substantial toll of trauma in low- and middle-income countries where access to care is often limited (Zhang, 2022).

The continent of Africa experiences a very high prevalence of PTSD. The most affected population are those located and operating in conflict zones and areas affected by widespread insecurity, displacement, and poor living conditions. A lot of studies have highlighted the detrimental mental health outcomes of long-term conflict and insecurity. The studies point to alarming rates of PTSD ranging from 20% to 40% in conflict zones. This has been identified in several African countries, for example, such as South Sudan, Somalia, Sudan, and the Central African Republic, where there have been protracted civil strife and wars. The population ends up exhibiting extremely high rates of PTSD due to the pervasive nature of violence and instability, (Kira et al., 2020). Refugees and internally displaced persons (IDPs) in these regions are particularly vulnerable, as they often endure multiple stressors, including loss of home, community, and livelihood, further exacerbating their risk of developing PTSD. Some of these locations have been identified to experience multiple conflict-related challenges, some of which are even reported to overlap. A case in point is when refugees from South Sudan were forced to seek shelter in Sudan. Unfortunately, a fight between government forces in Sudan compelled them to return to their country, South Sudan, after continued fights and a hostile environment due to threats of floods.

Apart from the direct effects endured during conflict, the concomitant challenges of famine, poverty, denied livelihoods, and displacements add up directly to the high rates of PTSD in the global south countries, more so in Africa. For example, in Uganda, where the effects of the Lord's Resistance Army insurgency are still felt, PTSD remains a major public health concern. A study by (Walugembe, 2018) revealed that nearly 25% of the population in conflict-affected northern Uganda displayed symptoms of PTSD, with many individuals experiencing recurrent memories of violence and disruptions to their daily functioning. The children are never left out in the exposure to the PTSD menace. If anything, they are the biggest victims since they are likely to live their entire lives with permanent scars. They are prone to developing chronic trauma-related symptoms, which can negatively impact their long-term emotional and psychological development, (Bantjes et al., 2020).

Lack of mental health support services as well as associated stigmatization of the PTSD mental health conditions leads to increased prevalence of the condition in most African countries. Many African countries struggle with limited economic capabilities, meaning there is little support for mental health victims, for example, support for people with PTSD or other trauma-related disorders (Skeen, 2021). In many rural areas, traditional healing methods and religious interventions are more common than formal psychiatric treatment. This often leads to misinterpretation and subsequent mismanagement or nil attention to mental health cases. This lack of appropriate care exacerbates the prevalence of PTSD and other associated ailments, with individuals often left without the necessary support for their survival or recovery. Recent efforts by organizations like the African Union and the World Health Organization (WHO) to integrate mental health services into primary health care systems offer a step forward, but there is a lot to be done to materialize the benefits of mental health support to the victims.

Apart from trauma experienced through devastating events during war and catastrophic occurrences, gender-based violence is also another big contributor to the mental health burden. Women and girls in conflict zones, especially those in countries such as the Central African Republic, South Sudan, and the Democratic Republic of Congo, often face sexual violence, which places them at a higher risk of PTSD, (Dawson, Jackson, & Schaal, 2020).

Studies have shown that women who are victims of sexual violence, be conflict-related sexual violence or otherwise, are more likely to develop PTSD and suffer from other mental health disorders such as depression and anxiety (Dawson A. J., 2020). The intersectionality of gender and trauma underscores the need for gender-sensitive approaches in mental health support. This also implies the need for elaborate policies to address PTSD through deliberate mitigation measures and appropriate support among vulnerable groups in society.

Following the widespread conflict during the 2007-2008 post-election violence in Kenya, PTSD has been a big concern. During this period, thousands lost their lives, scores were injured, and tens of thousands were evicted from their homes, while others ran away for fear of possible harm. This massive exposure to violence, displacement, and loss, combined with the ongoing challenges of political instability, led to a significant mental health crisis and has highlighted the need for effective mental health interventions for PTSD in Kenya. Around 18% of those affected by the post-election violence exhibited symptoms of PTSD, with women and children being disproportionately affected. The subsequent social and economic instability hindered many victims from accessing possible economic and healthcare support for their recovery. This event, combined with the ongoing challenges of political instability, has highlighted the need for effective mental health interventions for PTSD in Kenya, (Muriithi, Musyimi, & Ndetei, 2019).

In the recent past, there have been widespread terrorism attacks in Kenya. The terror attacks perpetrated majorly by the militant group al-Shabaab have led to the deaths of hundreds of Kenyans, with many left injured. The worst hit apart from the coastal and eastern regions was Kenya's capital, Nairobi, which has witnessed several attacks. In these areas, exposure to bombings, kidnappings, and other forms of terrorism has led to a significant rise in PTSD cases (Al-Khamis, 2020). The psychological impact of living under constant threat of terror has generated massive levels of anxiety and subsequently PTSD symptoms among the targeted communities. This is particularly evident in areas with high levels of displacement due to terrorism-related violence. Victims have reported to experience anxiety, despair, and powerlessness, exacerbating the psychological toll of trauma, (Kinyanjui, Ochieng, & Wambui, 2021).

The pastoral communities have also had their share when it comes to the PTSD challenges. These are communities that heavily rely on livestock for their livelihood. Unfortunately, the environmental effects have led to droughts and floods, which often lead to the degradation of available resources in terms of pasture. This will sometimes result in intercommunal violence, thereby exacerbating the existing hardship. Among pastoralist communities in northern Kenya, where recurring droughts and violent clashes over resources are frequent, approximately 15% of the population displays PTSD symptoms. The displacement and loss of livestock are assessed as the key stressors contributing to the disorder. This highlights the importance of recognizing the impact of environmental and community-based trauma in areas where natural resource scarcity leads to frequent conflicts, (Obondo, Ochieng, & Chuma, 2020).

Studies show that the stigma surrounding mental health issues remains a significant barrier to addressing PTSD in Kenya. Many individuals who get exposed to trauma and exhibit PTSD symptoms may not seek professional help due to societal norms, fear of or actual social exclusion, or an overall lack of understanding of mental health disorders associated with trauma (Makau, 2020). This stigma is found to be prevalent in rural areas, where traditional health practices take precedence over formal psychiatric medical support. This has necessitated those community-based interventions. Organizations such as the Kenya Red Cross have thus decided to implement psychosocial support programs to address PTSD and other mental health issues in affected populations. These programs emphasized peer support and community engagement, helping to reduce the stigma around mental health care while promoting recovery for survivors of trauma, (Kenya Red Cross, 2021).

Whereas the increased reported cases of PTSD can be attributed to increased exposure to traumatic events by victims, the prevalence can also be linked to increased awareness of the disorder as a medical condition. This has resulted in a deliberate diagnosis, allowing victims to articulate their experiences when seeking medical support. The adoption of trauma-informed care and the growing awareness of the importance of mental health in post-conflict and post-disaster recovery have led to a more inclusive approach to mental health care. Stakeholders continue to endeavour to seek to establish through research ways to effectively prevent, recognise, and treat PTSD. Equally, efforts to improve mental health

infrastructure are crucial to ensuring that survivors of trauma have access to the care and support they need, ((WHO), World Mental Health Report: Transforming mental health for all, 2022).

2.2.3 Substances Abuse by Soldiers During and After the Deployment

Studies indicate that substance abuse is a common menace among soldiers, be it during or post-active deployment. Among the most abused substances is alcohol, owing to its ease of availability and non-prohibited use in most jurisdictions. Substance abuse and often alcohol use are often contributed by stress and combat-associated trauma. Out of such stress and mental strain, some soldiers end up engaging in alcohol abuse as a coping mechanism for psychological distress, such as post-traumatic stress disorder (PTSD), anxiety, and depression. Opioid misuse has equally emerged to be one of the drugs misused, especially among soldiers dealing with physical pain or injuries sustained during combat. This issue is particularly acute in the United States, where veterans returning from Iraq and Afghanistan have reported significant rates of prescription drug misuse, including opioids, benzodiazepines, and other sedatives, (Jacobson *et al*., 2020).

Some soldiers seek self-medication to curb the effects of the psychological and emotional pain acquired due to combat-related trauma. Consequently, the continued use of these drugs leads to addiction as well as ending up compromising further the victim's mental health. This results in a degraded quality of life and productivity for an individual. A report by the U.S. Department of Veterans Affairs found that nearly 50% of veterans with PTSD also suffer from substance use disorders, (Hoge *et al*., 2020).

Currently, there are numerous drug classification systems in use. Medication can be divided into two broad categories: those that are allowed and those that are not. Medication that complies with all applicable local, state, and federal laws is considered legal when it is developed, produced, supplied, and utilized. For instance, over-the-counter drugs include vitamins, cough syrups, antacids, and several popular pain medicines. Elsewhere, illegal substances are used against local rules and ordinances. The likelihood that an illicit drug may lead to clinical dependency determines which kinds of drugs are outlawed. Drugs such as heroin, cocaine, amphetamines, barbiturates, and others have a high potential for

dependency. However, psilocybin, LSD, marijuana, and other chemicals can lead to weekly dependence, (Barerah, 2018).

In addition, Barerah (2018) notes that physical signs of drug misuse include fatigue, recurring health problems, red and glazed eyes, and a persistent cough. Emotional signs include changes in behavior, irritability, mood swings that are unpredictable, poor judgment, and irresponsible behavior. Family and social problems will be plaguing these people. The general trend will be toward secrecy, and there will be more fights, less social interaction, and a change in the clothing code, among other things. Often, breaking rules and regulations and running afoul of the law is also rather common. Attending students will present with worse academic performance and apathy about their schoolwork and extracurricular activities.

There is evidence connecting certain environmental stressors linked to military deployment to an increased risk of substance use disorders. Exposure to war, working in a challenging environment, missing chances because of military activities, and challenges with reintegration are a few of these stressors. After serving their time and returning to society in a different role, all veterans go through a readjustment period. They must reintegrate into their families, friends, and community upon their return. There is some mental strain involved in this reintegration. Substance Abuse and Mental Health Services Administration (2012) reports that over 10% of veterans utilizing the Veterans Health Administration (VHA) system for the first time are diagnosed with a substance use disorder (SUD). Many SUD veterans frequently exhibit mental health issues like sadness, anxiety, and PTSD. Veterans who have gone through terrible events are more likely to take drugs, (Teeters, Lancaster, Brown, and Back, 2017).

Substance misuse is linked to numerous risks when deployed. These are risks that are connected to the people they are dealing with as well as the victims. The risks include overdose deaths or injuries, violent conduct, accidents, and health issues brought on by organ damage. Due to their unlawful drug use and intoxication-related engagement in illegal acts, the victim may also run the risk of incurring legal repercussions. Another risk is upsetting the social order; consider dysfunctional households brought about by divorce

and neglect. Substance misuse and poor money management are frequently linked. When finances are mismanaged, it can lead to criminal activity as a means of escalating debt. All of them make the victim less mission-ready, making them a burden in a stressful combat situation. One's self-esteem and general productivity are also negatively impacted by substance misuse, (Barerah, 2018).

According to Phemelo's (2017) research, substance abuse in the military can have a major detrimental impact on both individual military members and the armed forces as a whole. Substance abuse negatively impacts soldiers' lives and well-being, which has an impact on their preparation for deployment as well as their physical and mental capacity to carry out military tasks. Spending a substantial amount of time engaging in activities linked to getting alcohol, using it, or recuperating from its effects is one of the features of alcohol consumption disorder, according to (Association, 2013). Additional traits include a high need for or appetite for alcohol and recurrent alcohol use, which can make it difficult to carry out important tasks at work. These are a few of the negative behavioral issues that service members who struggle with substance abuse face. Due to their incessant desires and obsession with alcohol, they may not plan or stay focused on the assigned responsibilities, as all they can think about is how to obtain alcohol. Due to their inability to carry out their military obligations, these individuals are frequently summoned for disciplinary proceedings.

Recent studies have highlighted several barriers preventing veterans and active-duty military personnel from receiving treatment for substance use disorders. These restricting elements include the scarcity of medical care services, the disorder's stigma, the lack of confidentiality, and the worry of unfavorable outcomes. A few interventions are highlighted in the paper, one of which is enhancing the use of evidence-based treatment and preventative strategies. The research also suggests improving insurance coverage rules to make medical treatment more accessible, as well as improving and upgrading medical equipment. The course of treatment ought to be tailored to the victim's demands and condition (Jeff A. Harwood, 2019).

While a person's capacity to handle stressors in life can undoubtedly be impacted by mental illness, everyone should be concerned about improving their mental health. It's critical to understand your mental wellness. The first steps in getting expert care and diagnosis for mental diseases are crucial. Maintaining awareness of your physical and mental well-being requires you to be aware of the stresses in your environment and your own health. There are many services available to assist anyone in any condition of mental health, and health professionals are an excellent resource for both those with and without mental problems. Although they are sometimes ignored, mental health and wellness are crucial to your general health. Stress may easily become overpowering and is sometimes an inevitable part of life. Being able to cope with stress and understand how to support people around you who need a little assistance are lifetime skills, (Medicentres, 2022).

Substance abuse among the military is becoming a major concern in most African militaries. The vice is common among soldiers that have finished deployment in conflict zones either locally or internationally, including those returning from peacekeeping missions. Most of these are found to be abusing either alcohol or cannabis, with some abusing both. The majority of these soldiers attribute their indulgence to seeking to address the effects of combat-related stress and trauma. With a limited or total lack of mental health support in some circumstances, the military personnel are left with no option other than to seek solace in substance abuse as a means to address their mental health challenges due to deployment. A study in Sierra Leone revealed that over 40% of soldiers returning from peacekeeping missions reported high levels of alcohol consumption and substance misuse, often due to a combination of combat stress, isolation, and inadequate support systems, (Nguyen, Moyo, & Tshabangu, 2022).

Apart from the combat zone challenges, the soldiers also face socio-political instability and economic hardship upon returning home. These are conditions that may not directly be associated with their deployment, but such conditions end up worsening the soldier's mental health strain. Ultimately, this leads to heightened substance abuse in seeking relief from the experience of trauma and stress. The stigma surrounding mental health and substance use in many African cultures often prevents soldiers from seeking help, further contributing to the problem, (Ofori *et al.*, 2023).

The effects of psychological and emotional devastation brought about by exposure to conflict have had a big negative impact on soldiers deployed as well as those who have finished deployment in the conflict zones. The psychological challenges have contributed to an upward trend of substance misuse among Kenyan soldiers. Particularly, with the KDF deployment in Somalia, there has been an increase in the number of cases of soldiers reported to be engaging in substance abuse. Soldiers returning from these missions often face significant mental health challenges, including PTSD, depression, and anxiety, and are prone to turning to substances like alcohol and marijuana to manage the psychological strain. While the KDF has acknowledged the need for better post-deployment care, there is still a significant gap in services available to soldiers struggling with substance misuse (Njaro, 2021). The lack of comprehensive rehabilitation programs and mental health resources has often opened doors for some of the victims of trauma to end up engaging in substance abuse to address their mental challenges. Mental health is also an area that has not been given the required sensitization among the general population. This therefore means that the victims are sometimes exposed to enormous stigmatization. This ends up perpetuating the cycles of substance abuse and deteriorating mental health, (Ogolla & Oyieke, 2021).

2.2.4 Interventions Used to Manage Mental Health Problems Among Soldiers Deployed in War Zone

There is a glowing demand and need for mental health interventions to support soldiers deployed in conflict zones as well as those who finished their deployments. Most western countries have embarked on developing and enabling mental health care programs that entail clinical therapy alongside peer support systems so as to accord the soldiers mental health support during and after deployment. Often, the main effort is directed to proactive measures that seek to equip the soldier with appropriate coping skills and techniques way before the soldier becomes a victim of serious mental health breakdown. The most often utilised interventions for treating PTSD, anxiety, and depression among soldiers include individual therapy, group therapy, and trauma focused cognitive behavioural therapy (CBT), (Hoge *et al*., 2020).

Encouragement to seek further help before symptoms develop and mental health deteriorates is the first step in mental health care. Receiving the right care is necessary for mental health intervention if people are to start feeling better and leading happier lives. Put simply, to effectively address mental health issues, institutional structures and policies already in place, as well as individual efforts from coworkers, family, and friends, will all be included in mental health interventions. Limited functionality in maintaining one's own everyday life is an issue that faces everyone dealing with a mental illness. Such a person runs the risk of hurting themselves through suicidal thoughts and actions. It will be necessary to step in to lessen the harm when someone is unable to take care of themselves, participate in social activities, or carry out their regular job responsibilities. Such measures must be started as soon as possible to prevent any harm from occurring. When someone has a mental illness, they frequently feel reluctant to ask for professional assistance. Consequently, helping someone who is refusing treatment can be accomplished in part through mental health intervention, (Jonathan, 2022).

Soldiers serving in war zones are subjected to greater levels of physical pain and traumatic incidents, which increase their susceptibility to mental health issues. Previous research has indicated that exposure to battle and its accompanying risks can lead to mental health difficulties. The soldiers' mental stability is negatively impacted by shocking and traumatic experiences like being involved in an ambush, getting injured or seeing an incident involving a roadside bomb, seeing fellow soldiers suffer injuries, or murdering or maiming enemy soldiers, among other things. All this exposure causes extreme stress and mental strain. The soldiers who are impacted eventually lose a significant amount of their functionality and require medical assistance. This effect constitutes the psychological price of conflict and military deployment. It should therefore be mandatory for policymakers to investigate the mental health issues related to deployment to develop mitigating strategies. (Klint, 2018; Martin, Trine, Anne). The Department of Defense has made considerable strides in identifying and removing obstacles that prevent soldiers from receiving mental health care. Nevertheless, stigma is undermining the government's efforts to address mental health issues. Although complex desensitization is essential for tackling issues related to stigma, the person and those in their immediate vicinity bear the primary responsibility for eradicating stigma. It is important for soldiers, as well as their friends and family, to

understand that getting competent mental health care is like going to the dentist for any dental issues. As a result, military leaders at all levels must work to dispel misconceptions about mental health and guarantee that their soldiers are free to seek competent assistance whenever they need it, (Claudia, 2021).

Mental health issues may be viewed as a sign of weakness in some communities. When soldiers, who are supposed to be the most resilient group in society, are faced with these difficulties, the situation may get much worse. This will make some soldiers reluctant to talk openly about their mental health issues. The problem is made worse by a lack of knowledge, insufficient legislation to support individuals facing similar difficulties, and improper sensitization. Even if the soldiers do confide in their fellow soldiers about the mental health issues they are facing, they hardly ever acknowledge that getting professional mental health treatment is the answer. For society to find the right treatment for mental health issues, there needs to be a mentality change, (Romaniuk and Kidd, 2021).

Equally, the treatment of a soldier's mental health in the past was considered a personal matter, and handling mental health issues related to military deployment was rarely or never taken into consideration. Politicians have implemented mental health intervention programs for soldiers because they realize how important mental health is to completing missions successfully. Hence, in contrast to the conditions under evaluation, military administration leaders have noted that unaddressed mental health issues present a significant operational danger (Hicks, 2023).

To address these issues, the military has put more focus on improving mental health care and providing support to service personnel both before and after deployment. Screening programs for PTSD, anxiety, and depression have gained popularity, and there is a growing desire to reduce the stigma associated with seeking help. (Vogt, 2018) emphasized the importance of early intervention and proactive mental health care, claiming that the sooner military people obtain mental health services, the better their chances of recovery. Furthermore, the introduction of telehealth services and peer support programs has helped to overcome care gaps, particularly for soldiers stationed in remote or dangerous locations. Despite these developments, ensuring that all soldiers receive the care and support they

require to manage the mental health consequences of combat deployments remains a challenge.

In addition to individual therapies, group interventions have also been shown to be effective in improving soldiers' mental health. Cognitive-behavioral group therapy (CBGT) and other forms of group support provide a setting where soldiers can share their experiences and strategies for managing the psychological challenges of combat. These group settings not only foster a sense of camaraderie but also reduce the stigma often associated with seeking mental health care in military cultures. Moreover, virtual mental health platforms and mobile apps have been developed in several countries to reach soldiers in remote or combat zones, where traditional face-to-face services may not be available, (Jacobson *et al*., 2021). These digital interventions offer self-guided exercises, mindfulness training, and access to mental health professionals via telehealth services, ensuring continuous support for soldiers in war zones.

Resilience training is another key intervention used by militaries worldwide to manage mental health issues in soldiers. This preventative approach aims to build mental and emotional resilience before deployment, equipping soldiers with tools to manage stress, trauma, and combat-related stressors. Resilience programs have been incorporated into basic training and are designed to help soldiers develop coping mechanisms and stress management techniques, thus potentially reducing the incidence of PTSD and other mental health problems. Although the effectiveness of such programs is debated, they represent a significant step toward fostering a mental health-conscious military culture, (Smith *et al*., 2022).

Soldier mental health support is a fairly addressed phenomenon on the continent of Africa. Many countries struggle to provide psychological support to military personnel deployed in combat and those that have finished such deployments. Sometimes, this inadequacy in services is associated with cultural prejudices and stigma facing mental health. However, some militaries on the continent, particularly those involved in African Union and United Nations peacekeeping missions, have begun to introduce programs to address mental health issues such as PTSD, depression, and anxiety. This has been witnessed in countries like

South Sudan, where mental health support programs have been launched to provide psychological first aid, counselling services, and stress management workshops for peacekeepers. These interventions, though still in their early stages, represent a positive step toward addressing the mental health needs of soldiers in conflict zones, (Lungu & Moyo, 2020).

It is equally important to understand that a lack of appropriate infrastructure denies the victims of mental health challenges a chance to be assisted. Many countries in Africa do not have adequate specialized mental health care practitioners. This gets much more complicated when the soldiers are deployed in the combat zones where mental health casualties are high. This exposes the soldiers to basic services often limited to peer support and informal community-based approaches, where soldiers are encouraged to talk about their experiences and support one another in coping with trauma. These informal support systems, while useful, are not a substitute for professional psychological care, and there is a growing recognition of the need for specialized mental health professionals in African military contexts. In response to these challenges, some African countries are looking to provide supportive services by integrating mental health services into their military health care systems. For example, the Kenyan military has started to incorporate mental health screenings into pre-deployment assessments and post-deployment care, aiming to identify and address issues before they become severe, (Ofori *et al*., 2023).

To mitigate against the effects of mental health challenges, Kenya has embraced pre-deployment resilience training, stress management workshops, and post-deployment mental health screenings to identify issues such as PTSD, depression, and anxiety. However, the adequacy of these services has been undermined by the extent to which they are available, most importantly in the battlefield. The challenge of stigma has been found to undo the progress made in establishing suitable interventions. Consequently, the KDF has been working to increase awareness and reduce the stigma associated with mental health issues, making it easier for soldiers to seek help without fear of discrimination, (Limo *et al*., 2020).

Equally while seeking to address the mental health challenges, Kenya, with the help of other partners, for instance, the World Health Organisation (WHO), has managed to introduce and operationalise mobile health platforms. In addition to these mobile services, Kenya has also embraced the use of virtual counselling sessions to be able to accord services to soldiers deployed in remote areas. This has greatly enhanced the delivery of the services in an arena where the traditional in-person services are unavailable. To ensure the sustainability of these efforts and the prevailing financial constraints, experts point to a need for collaboration with other entities. Such collaboration will enable building capacity via training of military experts to be able to offer the mental health support promptly whenever required, (Ogolla & Oyieke, 2021).

2.3 Summary

The mental health effects of soldiers' deployment in combat zones are profound and multifaceted. Traumatic events experienced during deployment can lead to a range of psychological challenges, including anxiety, survivor guilt, and post-traumatic stress disorder (PTSD). Soldiers in combat zones often face mental strain due to witnessing death, exposure to danger, and experiencing injuries. Research has shown that a significant percentage of soldiers deployed in war zones experience symptoms of PTSD, depression, and other mental health issues. The prevalence of PTSD is higher among individuals who have been exposed to traumatic events such as combat, hostage situations, and violence. These experiences can have long-lasting effects on a soldier's mental well-being and overall functioning.

Substance abuse is also a common coping mechanism used by soldiers to numb emotions and manage stress. Alcohol, drugs, and other substances are often misused to cope with the challenges of deployment. Substance abuse can exacerbate mental health issues and lead to a range of negative consequences for soldiers and their colleagues.

Interventions for managing mental health problems among soldiers deployed in war zones are crucial for ensuring the well-being of military personnel. Encouraging soldiers to seek help, addressing stigma around mental health issues, and providing access to competent mental health care are essential steps in supporting soldiers' mental health. Military leaders

and policymakers play a key role in promoting mental health awareness and ensuring that soldiers have the resources they need to address mental health challenges. Overall, addressing the mental health effects of soldiers' deployment in combat zones requires a comprehensive approach that includes early intervention, destigmatization of mental health issues, and access to appropriate mental health care services. By prioritizing mental health support for soldiers, we can help mitigate the psychological toll of combat deployments and promote the well-being of military personnel.

2.4 Research Gap

Although numerous studies have examined the psychological effects of military deployment, several gaps remain in the existing literature. First, there is a contextual and geographical gap. Much of the available literature on deployment-related mental health has been conducted in Western military contexts, particularly among soldiers deployed in Iraq and Afghanistan. These studies may not fully reflect the operational realities, cultural dynamics, and institutional structures of African militaries such as the Kenya Defence Forces (KDF). Consequently, there is limited context-specific empirical evidence on the mental health experiences of Kenyan soldiers deployed under the African Union Mission in Somalia (AMISOM).

Second, there is a conceptual gap in the literature. While many studies focus broadly on mental health outcomes such as PTSD, depression, and anxiety, fewer studies simultaneously examine the interrelationship between psychosocial effects of deployment, PTSD prevalence, substance use as a coping mechanism, and the institutional interventions available to address these challenges. This fragmented approach limits a comprehensive understanding of how these factors interact to influence soldiers' mental health during and after deployment.

Third, a methodological gap exists in many previous studies. A considerable proportion of research on soldiers' mental health relies heavily on clinical or hospital-based data and purely quantitative approaches. Such methods may overlook soldiers' lived experiences, perceptions of available mental health services, and contextual factors influencing coping strategies. There is therefore a need for studies that combine both quantitative and

qualitative approaches to capture a more holistic understanding of deployment-related mental health outcomes.

Additionally, there is a population gap in the literature. Most existing studies focus on veterans after they have returned from deployment, with limited attention to active-duty soldiers who have recently completed deployments or are transitioning between deployment cycles. Understanding the experiences of this group is important for identifying early indicators of psychological distress and improving preventative interventions.

Finally, although several interventions have been proposed to address mental health challenges among soldiers, there remains a knowledge gap regarding the effectiveness and accessibility of these interventions within African military institutions, including the Kenya Defence Forces. In particular, limited research has evaluated how existing support mechanisms, such as pre-deployment training, psychological counseling, peer support programs, and post-deployment reintegration initiatives, function in practice and whether they adequately address the mental health needs of deployed soldiers.

This study therefore seeks to address these gaps by examining the effects of African Union Mission deployment on the mental health of Kenyan soldiers in Somalia, with particular attention to psychosocial effects, PTSD prevalence, substance use as a coping mechanism, and the effectiveness of mental health interventions provided by the Kenya Defence Forces.

2.5 Chapter Summary

This chapter reviewed relevant literature related to the mental health effects of military deployment on soldiers. The review examined empirical studies on the psychosocial and mental health effects of deployment in combat zones, the prevalence of post-traumatic stress disorder (PTSD), substance use as a coping mechanism among deployed soldiers, and the interventions used to manage mental health challenges among military personnel. The literature highlighted that exposure to combat environments often leads to psychological challenges such as anxiety, depression, PTSD, and substance abuse. The review also identified several gaps in existing research, including limited context-specific

studies on Kenyan soldiers deployed under the African Union Mission in Somalia, methodological limitations in previous research, and insufficient evaluation of mental health interventions within African military institutions. These gaps informed the focus and justification of the present study. The next chapter presents the research methodology adopted for the study, including the research design, target population, sampling procedures, data collection methods, and data analysis techniques used to investigate the effects of deployment on the mental health of Kenyan soldiers.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methodological framework used to conduct the study. It presents the research design, study site, target population, sampling procedure, and sample size used in the study. The chapter further describes the data collection instruments, pretesting process, and measures taken to ensure instrument validity and reliability. In addition, it explains the data collection procedures, methods used in data analysis, and the ethical and legal considerations observed during the research process.

3.2 Research Design

The study adopted a descriptive research design to examine the effects of military deployment on soldiers' mental health, with particular emphasis on Kenyan personnel serving in the African Union Mission in Somalia (AMISOM). This design was appropriate as it enabled the researcher to systematically describe characteristics, behaviors, and the prevalence of conditions such as PTSD, substance abuse, and other mental health challenges, as well as the interventions in place, without manipulating the study environment. As noted by Aggarwal (2019), descriptive research aims to outline the distribution of variables without testing causal relationships or hypotheses, making it especially suitable for studies involving sensitive groups such as military personnel, where ethical considerations often restrict experimental methods.

Descriptive research is particularly valuable in exploratory or context-specific settings, such as military deployments, where understanding the scope and characteristics of a problem is essential before implementing experimental or interventional studies. It facilitates the collection of both quantitative and qualitative data that reflect real-life conditions and challenges. Additionally, this approach helps identify associations between demographic factors such as age, rank, and length of deployment and the presence of mental health problems, thereby informing targeted interventions and evidence-based policy decisions.

To enhance the depth and reliability of the findings, the study adopted a mixed methods approach, integrating both quantitative and qualitative research techniques. The quantitative component involved the use of structured questionnaires and standardized mental health assessment tools to gather data on the prevalence and distribution of mental health conditions. This supported the identification of patterns and correlations within the sample population. Complementing this, qualitative methods such as in-depth interviews and focus group discussions explored the lived experiences of the soldiers, uncovering perceived stressors, coping mechanisms, and the effectiveness of available interventions. Together, these methods offered a richer, more nuanced understanding of the psychological effects of deployment, while also supporting the development of effective mental health strategies and policies for Kenyan soldiers deployed in conflict zones.

3.3 Research Site

The research was conducted in Langata Barracks, which is situated roughly four miles southwest of Nairobi. Among other small units, the 7 Kenya Rifles (KR) Battalion is housed at the barracks. This research site was suitable since it has soldiers who have served under AMISOM in Somalia as well as those who are currently serving in Somalia but on leave and recuperation. The region is enclosed by Nairobi National Park from the Southwest through the South to the Southeast, Langata Estate to the northwest, and Uhuru Garden to the northeast. The location of the area is 01°20'S 36°47'E. The research area is roughly 500 acres in size. Langata Road provides access to the area (Kenya Ministry of Lands, Land Zoning and Infrastructure Mapping Report: Nairobi Region, 2023).

3.4 Target Population

Population refers to a unit of analysis or a group of people, which is the focus of a particular research (Creswell, 2018). Target population are the hypothetical objects, events, or a group of people which the researcher intends to derive the outcomes of the study, defining the units for which the study findings aim to generalize. In research, target population is supposed to be defined showing its geographic as well as temporal attributes (Taherdoost, 2022).

The population for this study consisted of 520 soldiers stationed at Lang'ata Barracks, a military installation that hosts the 7 Kenya Rifles Battalion together with several supporting units of the Kenya Defence Forces (KDF). The population figure was obtained from official personnel records at Lang'ata Barracks identifying soldiers with experience related to deployment under the African Union Mission in Somalia (AMISOM), which formed the sampling frame for the study. This group comprises both male and female personnel, although the majority are male, reflecting the gender composition typically found in infantry and combat support roles within the KDF. These soldiers are permanent members of the military who were recruited through official enlistment processes and have undergone basic military training. Their length of service varies considerably, ranging from personnel with only a few years of service to others with more than a decade of active-duty experience.

The soldiers at Langata Barracks perform a range of duties, including combat operations, peace support missions, and internal security operations. Many of them have been deployed to conflict zones such as Somalia under the African Union Mission in Somalia (AMISOM), where they are routinely exposed to trauma, violence, and life-threatening situations. These soldiers operate under a clearly defined military command structure, reporting to non-commissioned and commissioned officers within their unit hierarchy. Ultimately, their chain of command extends to the Kenya Army Headquarters.

This population is well-suited for a study on mental health for several important reasons. First, their exposure to combat and deployment in high-risk environments places them at increased risk of developing psychological conditions such as post-traumatic stress disorder (PTSD), depression, anxiety, and substance abuse disorders. Second, the nature of military life itself including long separations from family, rigid routines, frequent relocations, and operational unpredictability contributes to chronic stress and emotional strain. Additionally, these soldiers often face barriers to accessing mental health care, such as institutional stigma, fear of judgment, and logistical difficulties, all of which can prevent them from seeking help even when they need it.

Moreover, soldiers from Langata Barracks offer a diverse range of deployment experiences, including those who are actively serving in Somalia and others currently on leave or recovery. This makes the population accessible and valuable for data collection, while also providing insights that are likely representative of broader trends within the Kenyan military. Their participation in this study can help inform the development of more effective mental health interventions, policy frameworks, and support structures within the Kenya Defence Forces.

3.5 Study Sample

3.5.1 Sampling Procedure

Sampling ensures that the findings of the study are representative of the target population. This study employed stratified random sampling to ensure that key subgroups among soldiers stationed at Langata Barracks were proportionately represented. The population consisted of soldiers who had previously been deployed to Somalia under the African Union Mission in Somalia (AMISOM), those awaiting redeployment, and those who had returned from deployment. To enhance representativeness, the soldiers were first divided into relevant strata based on operational roles, including regular operations, special operations, logistics support, and command positions. Stratified random sampling was then applied within each of these groups to ensure that respondents from each category were adequately represented in the study. This approach minimized selection bias and ensured that the sample reflected the diverse experiences, responsibilities, and perspectives of soldiers stationed at Langata Barracks who had deployment experience related to AMISOM.

The sampling frame for this study consisted of the official personnel records maintained at Langata Barracks identifying soldiers who had deployment experience under the African Union Mission in Somalia (AMISOM), those awaiting redeployment, and those who had previously returned from deployment. These records provided a verified list of eligible soldiers from which the sample was drawn. The unit of analysis in this study was the individual soldier. Each soldier constituted a single unit from which data were collected

regarding deployment experiences, mental health outcomes, coping mechanisms, and perceptions of available mental health interventions within the Kenya Defence Forces.

3.5.2 Study Sample Size

A total of 520 personnel—those who have been in Somalia previously, those who are awaiting redeployment, and those who are currently stationed there were included in the study. Since the population is less than 10000 (the figure 10,000 is a benchmark figure used when applying the Yamane (1967) formula for determining sample size). Therefore, the Yamane formula was be used to come up with the study sample.

n=N/1+N(e^2)

Where

n=the desired sample size of the target population

N=the population size

e=Margin of error of 0.05

Estimated population size=520

n=520/1+520(0.05^2)

$n = 226.12$

Sample size of the study will be 226.

After determining the total sample size using the Yamane (1967) formula, the next step involved distributing the sample across the identified strata within the population. Since the study employed stratified random sampling, proportional allocation was used to ensure that each stratum was represented in the sample according to its proportion in the total population. According to Cochran (1977), proportional allocation in stratified sampling helps maintain representativeness by assigning sample sizes to strata based on their relative sizes in the population.

The proportional allocation formula is expressed as:

$Nh = (Nh/N) \times n$

Where:

nh = sample size for stratum *h*

Nh = population size of stratum *h*

N = total population size

n = total sample size

Using this formula, the sample for each stratum was calculated proportionally. For example, for the Normal Operations stratum:

$Nh = (400/520) \times 226n$

$Nh = 174$

This procedure ensured that each subgroup within the population was adequately represented in the final sample.

Table 3.1 Sampling frame, Source: Field Data (2025)

STRATA	TARGET POPULATION	SAMPLE SIZE	PERCENTAGE OF STRATA
NORMAL OPERATIONS	400	174	76.9
SPECIAL OPERATIONS	40	17	7.7
LOGISTICS	60	26	11.5
COMMAND	20	9	3.9
TOTAL	520	226	100

3.6 Data Collection

3.6.1 Data Collection Instruments

To conduct the investigation, the researcher used primary data. The primary data was gathered using researcher developed questionnaires and standardized questionnaires that centered on the deployment experiences of soldiers at Langata Barracks. The soldiers filled in the self-administered questionnaires to provide information. The researcher collected the fully filled questionnaires from the participants once they had completed them. They were allowed to thoughtfully complete the questionnaires, ensuring accurate and considered responses. This data collection technique aided in raising the response rate.

On sociodemographic information from respondents, including gender, age, length of service in the Kenya Defence Forces (KDF), and involvement in AMISOM deployments, participants were asked to tick either "Yes" or "No," or select one option from given categories that best described their situation. The data gathered helped to categorize

participants for analysis based on personal and professional background factors that may influence their experiences or perceptions.

In the questionnaire, the respondents were also assessed on the psychological effects they experienced during or after their deployment in the AMISOM mission. This focused on whether they had suffered from symptoms such as sleep disorders, panic attacks, loss of self-confidence, or feelings of guilt related to traumatic events. Respondents were also asked whether they felt psychologically strengthened and more resilient as a result of their experiences. The questions required them to reflect on past emotional and mental health challenges linked to their service.

Regarding the prevalence of PTSD, the researcher used the Impact of Events Scale-Revised (IES-R) standardized tests to gather information from the respondents about their specific current feelings and experiences. The test highlighted factors like reminders that trigger one's feelings, trouble sleeping, being irritable, being in denial about past happenings, and concentration challenges, among others. To get findings about the psychological effects, the researcher inquired from the respondents if one was experiencing sleep disorders, panic attacks upon hearing sudden loud noises, loss of self-confidence, survivor's guilt, or if one has become more resilient after experiencing traumatic events.

The Impact of Event Scale–Revised (IES-R) is a standardized questionnaire designed to measure the severity of post-traumatic stress symptoms experienced over the previous week. It contains 22 statements describing common PTSD-related experiences, such as intrusive memories, avoidance of reminders, and heightened arousal. Each statement is rated on a scale from 0 to 4, where 0 means "not at all" and 4 means "extremely." This means the total score can range from 0, indicating no symptoms, to 88, indicating very severe symptoms across all areas. In interpretation, a total score between 0 and 23 generally suggests little or no PTSD symptoms. Scores from 24 to 32 indicate some symptoms and mild distress, while scores from 33 to 36 are often taken as the threshold for a probable PTSD diagnosis. Scores of 37 and above point to a high likelihood of PTSD, reflecting severe distress and a strong need for further psychological evaluation or intervention (Hoge *et al*., 2020).

To get feedback about substance abuse, the researcher employed the Drug Abuse Screening Test (DAST). The test inquired if one is using non-prescribed drugs, abusing more than one drug at a time, trying to stop abusing drugs with no success, experiencing blackouts due to drug abuse, ever feeling bad about drug use, or having complaints from family about drug use, among others. Elsewhere, to find out about the status of mental health interventions, the questionnaire sought to know if soldiers seeking mental health treatment do face stigma, if there are sensitization mechanisms in place, the availability of safeguarding mechanisms for those deployed, and the availability of facilities and services during and after deployment.

The Drug Abuse Screening Test (DAST-10) is a brief, self-report screening instrument designed to identify potential problems related to drug use, excluding alcohol and tobacco. It consists of 10 yes-or-no questions, with each "yes" response scored as 1 point, producing a possible total score ranging from 0 to 10. A score of 0 suggests no reported problems and therefore no indication of drug abuse, while a score between 1 and 2 indicates a low level of problems that may warrant monitoring and brief preventive education. Scores from 3 to 5 fall within the moderate range, suggesting a likely pattern of drug abuse and the need for further assessment or intervention. Scores from 6 to 8 indicate a substantial level of problems, where clear signs of abuse are present and a more intensive evaluation is recommended, whereas scores between 9 and 10 reflect a severe level of drug-related difficulties, strongly indicating dependence and the need for comprehensive assessment and treatment referral (Yaghubi, 2020).

Qualitative data was collected through structured interviews and open-ended questionnaire responses to capture deeper insights into soldiers' deployment experiences and mental health challenges. The structured interviews were conducted with six key informants, including two military psychologists, two unit commanders, and two military counselors stationed within the Kenya Defence Forces medical and welfare services. These respondents were selected using purposive sampling, since they possess professional knowledge and experience related to soldiers' mental health management and deployment welfare programs. The interviews were guided by a structured interview guide developed by the researcher, which contained questions focusing on the types of mental health

challenges observed among deployed soldiers, the coping mechanisms commonly adopted by soldiers, the availability and effectiveness of mental health interventions within the KDF, and the institutional challenges encountered when providing psychological support. In total, six interviews were conducted. Responses obtained from the interviews were recorded in written notes and later analyzed using thematic analysis to identify recurring patterns and perspectives regarding mental health support for deployed soldiers.

In addition to primary data, secondary data was also consulted to complement the study. Secondary information was obtained from official military reports, policy documents on deployment and welfare, published academic literature, and reports from organizations such as the World Health Organization (WHO) and the African Union concerning peacekeeping missions and soldiers' mental health. A document review guide was used to extract relevant information related to deployment stressors, mental health outcomes, and institutional support systems for soldiers.

3.6.2 Pretesting of Research Instruments

Pretesting is an essential step aimed at evaluating the clarity, relevance, and functionality of questionnaire items before the main data collection is conducted so as to ensure the final tool yields reliable and valid data, (Taherdoost, 2022). At Moi Air Base (MAB), the researcher distributed 25 questionnaires for pretesting. This sample size was chosen because the responders share similar traits, having deployed with the military and possessing comparable levels of training and experience. Therefore, 25 participants provide a sufficient yet manageable sample for identifying potential issues with the questionnaire, such as unclear or ambiguous questions. According to (Kim, 2021), a sample size of 10–30 participants is often adequate for pretesting instruments in relatively homogenous populations, as it allows researchers to detect problems in item wording, flow, and content relevance without expending excessive resources. The pretesting phase allowed the researcher to clarify any issues and make necessary adjustments to ensure the questionnaire's accuracy and effectiveness before it was distributed to the larger study population. The sample size of 25 was appropriate for capturing a diverse range of feedback while maintaining a practical and focused approach to refining the survey instrument.

3.6.3 Instrument Reliability

Reliability refers to the degree to which a research instrument produces consistent results when used repeatedly under similar conditions (Khajehnasiri, 2018). In this study, reliability was assessed through internal consistency reliability using Cronbach's Alpha coefficient. A pilot study was conducted at Moi Air Base involving 25 respondents who possessed characteristics similar to those of the target population but were not included in the final study sample. The responses obtained during the pilot study were analyzed using Cronbach's Alpha to determine the internal consistency of the questionnaire items measuring psychosocial effects, PTSD symptoms, substance use, and perceptions of mental health interventions. Cronbach's Alpha values above 0.70 are generally considered acceptable for social science research as they indicate satisfactory internal consistency among the items. The reliability analysis produced an overall Cronbach's Alpha coefficient of 0.81, indicating a high level of internal consistency for the questionnaire. Specifically, the items measuring psychosocial effects recorded an alpha value of 0.79, the PTSD scale (IES-R) recorded 0.86, and the substance use scale (DAST-10) recorded 0.76. These results demonstrate that the items within each scale were sufficiently correlated and consistently measured the intended constructs. Based on these results, the research instrument was considered reliable for use in the main data collection. Minor adjustments were made to improve the clarity of some questionnaire items identified during the pilot study, particularly those related to psychological experiences and coping mechanisms during deployment.

3.6.4 Instrument Validity

Validity refers to the extent to which a research instrument accurately measures what it is intended to measure (Creswell, 2018). In this study, both content validity and face validity were assessed to ensure that the questionnaire appropriately captured issues related to soldiers' mental health during deployment.

Content validity was established through expert review. The questionnaire was examined by the research supervisors and mental health professionals familiar with military deployment environments to ensure that the items adequately represented the key study

variables, including psychosocial effects of deployment, PTSD symptoms, substance abuse patterns, and the availability of mental health interventions. Their feedback focused on the relevance, clarity, and comprehensiveness of the questions. Based on their recommendations, several items were revised to improve clarity, eliminate ambiguity, and ensure alignment with the study objectives.

Face validity was further assessed during the pilot study conducted at Moi Air Base with 25 respondents who shared similar characteristics with the study population. Participants were asked to comment on the clarity, wording, and relevance of the questionnaire items. Feedback from the pilot indicated that most questions were clear and understandable, although minor adjustments were made to improve wording, simplify some technical terms related to mental health, and improve the sequence of questions. These revisions enhanced the ability of the questionnaire to measure the intended variables effectively.

3.7 Data Analysis

Data analysis is described as processing of the collected data to provide answers to the research questions. Data analysis brings structure and order to the volume of information collected from the field. The analysis of the data relied on both quantitative and qualitative methods, drawn from the primary data collected via semi-structured and standardized questionnaires.

To facilitate the analysis process, both quantitative and qualitative data analysis tools were employed. Quantitative data obtained from the structured sections of the questionnaire were coded and entered into the Statistical Package for the Social Sciences (SPSS) for analysis. SPSS was used to generate descriptive statistics such as frequencies, percentages, and mean scores, which helped summarize demographic characteristics and identify patterns related to PTSD symptoms, substance use, and other psychological effects of deployment. The results were then presented using tables, charts, and graphs to enhance interpretation.

Qualitative data obtained from open-ended questionnaire responses and structured interviews were analyzed using thematic analysis. The analysis followed a systematic

process beginning with data familiarization, where the researcher carefully read through all responses to gain an overall understanding of participants' experiences. The responses were then coded, whereby meaningful statements related to deployment experiences, coping mechanisms, and perceptions of mental health support were identified and labeled. Similar codes were subsequently grouped into categories, which were further organized into broader themes representing recurring patterns in the data. Examples of themes identified included perceived stigma associated with seeking mental health support, reliance on peer support during deployment, limitations of existing mental health services, and recommendations for strengthening psychological interventions within the Kenya Defence Forces.

The qualitative findings were presented in narrative form, supported by illustrative quotations from respondents to provide contextual understanding of soldiers' lived experiences. In some cases, thematic summary tables were used to organize and highlight the major themes emerging from the data. This approach enabled the researcher to complement the quantitative results by providing deeper explanations of soldiers' perceptions, coping strategies, and views regarding the adequacy of mental health interventions available during and after deployment.

Demographic was analyzed using descriptive statistical methods to summarize demographic characteristics of the respondents. Frequencies and percentages were calculated for each category, such as gender, age groups, years served, deployment status, and years deployed. The results were then presented visually in figures (bar charts and pie charts) to illustrate the distribution patterns. Invalid or incomplete questionnaires were excluded to ensure accuracy, resulting in a valid response rate calculation. The analysis highlighted the predominant trends within the sample, such as majority male representation, common age ranges, and deployment experience patterns.

For psychological effects of deployment on soldier's mental health, the data was analyzed using frequency counts to determine the number of respondents experiencing each specific mental health effect. Percentages were then derived to show the relative proportion of each effect within the total sample. The results were organized and visually represented for

easier interpretation of trends. This approach allowed comparison of the prevalence of different mental health outcomes, such as sleep disorders, panic attacks, and increased boldness.

To analyse the prevalence of mental health issues, the researcher used quantitative analysis and focused on the data obtained using the *Impact of Events Scale-Revised (IES-R),* which helped to assess the prevalence of PTSD symptoms among soldiers. Responses to questions related to sleep disturbances, irritability, and concentration difficulties were coded and analysed using descriptive statistics (e.g., frequency counts, means) to calculate the percentage of soldiers who reported symptoms of PTSD. For the analysis of psychological effects of combat deployment, the researcher used qualitative analysis to focus on responses to open-ended questions about the psychological impact of deployment, such as feelings of survivor's guilt or increased resilience. These responses were analysed using thematic analysis to identify common themes related to emotional and psychological consequences, such as stress, trauma, and post-deployment adaptation.

To analyse substance abuse as coping mechanisms, the researcher used the *Drug Abuse Screening Test (DAST)* to analyse soldiers' substance use behaviors. Responses were coded and analyzed to determine the extent of substance abuse, including non-prescribed drug use and polydrug use, as well as the subsequent impact of substance abuse on soldiers' mental health. Descriptive statistics highlighted the proportion of soldiers reporting problematic substance use, while correlation analysis was used to explore associations between substance abuse and PTSD or anxiety symptoms. For the analysis of the mental health interventions employed by the KDF, the researcher analyzed the obtained data using content analysis, coding for themes related to availability, effectiveness, and stigma associated with mental health services. Additionally, descriptive statistics quantified responses to questions about the availability of mental health facilities, sensitization programs, and post-deployment care.

For interventions used by KDF to manage mental health problems, the data was analyzed using frequency counts to determine the available mental health interventions. Percentages were then derived to show the relative level of each mental health interventions as reported

by the total sample. The results were organized and visually represented to provide a visual comparison of the different intervention aspects. This analysis helped highlight key areas such as stigma during treatment and the availability of facilities and mechanisms.

3.8 Ethical Considerations

After the research proposal was approved, the researcher obtained an introduction letter from Africa Nazarene University to facilitate the research process. Subsequently, a research permit was secured from the National Commission for Science, Technology and Innovation (NACOSTI), which authorizes academic research within Kenya. In addition, permission to conduct the study was obtained from the Kenya Ministry of Defence through a letter of authorization allowing the researcher to access the study population and collect data.

Before the administration of the questionnaires, the researcher explained the purpose of the study to the respondents and emphasized that the research was strictly for academic purposes. Participants were informed that their participation was voluntary and that they were free to decline participation or withdraw from the study at any stage without any consequences. Informed consent was obtained from all respondents prior to their participation.

To ensure confidentiality and anonymity, respondents were instructed not to include their names or any other identifying information on the questionnaires. The researcher also assured participants that all information provided would be treated with strict confidentiality and used solely for research purposes. Respondents who completed the questionnaires electronically were informed that they could submit their responses anonymously, including through encrypted email accounts if they preferred. In addition, online survey platforms were used to distribute questionnaire links to respondents who were not physically present at the barracks.

Throughout the data collection process, the researcher ensured that respondents clearly understood the questions and provided necessary guidance where required. These

procedures were implemented to uphold ethical research standards, protect the identity of participants, and guarantee the security and confidentiality of the information collected.

3.9 Chapter Summary

This chapter outlined the research methodology adopted to examine the effects of African Union Mission deployment on the mental health of Kenyan soldiers in Somalia. It described the research design used in the study, the target population, and the sampling procedure, including the determination of the sample size using the Yamane formula and the application of stratified random sampling to ensure representation of different operational groups within the Kenya Defence Forces at Langata Barracks. The chapter also explained the data collection instruments, which included structured questionnaires incorporating standardized tools such as the Impact of Event Scale–Revised (IES-R) for assessing PTSD symptoms and the Drug Abuse Screening Test (DAST-10) for identifying substance use patterns. Procedures for pilot testing, reliability assessment using Cronbach's alpha, and ethical considerations guiding the research process were also discussed. In addition, the chapter described the methods used to analyze both quantitative and qualitative data, including descriptive statistics using SPSS and thematic analysis for qualitative responses. Having outlined the methodological approach used to collect and analyze the data, the next chapter presents the analysis and interpretation of the findings obtained from the field study.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents the analysis and findings of the study on the impact of soldiers' deployment on their mental health, with a specific focus on Kenyan soldiers serving under the African Union Mission in Somalia (AMISOM). The chapter begins with the response rate and demographic characteristics of the respondents, including gender, age, years of service, deployment status, and length of deployment. It then presents the analysis of the study findings in relation to the research objectives, covering the psychosocial effects of deployment, the prevalence of post-traumatic stress disorder (PTSD), the use of substances as coping mechanisms for stress, and the interventions employed by the Kenya Defence Forces (KDF) to manage mental health challenges among deployed soldiers. The findings are presented using tables, figures, and descriptive explanations to facilitate interpretation.

4.2 Response Rate

The study had a sample size of 226 to which questionnaires were administered. After sorting through the questionnaires, 4 of them were found to be incomplete and therefore not valid for the study due to crucial missing data. There were 222 questionnaires which were complete and valid to be used for the analysis, which represents 98% of the total respondents as indicated in Fig 4.1.

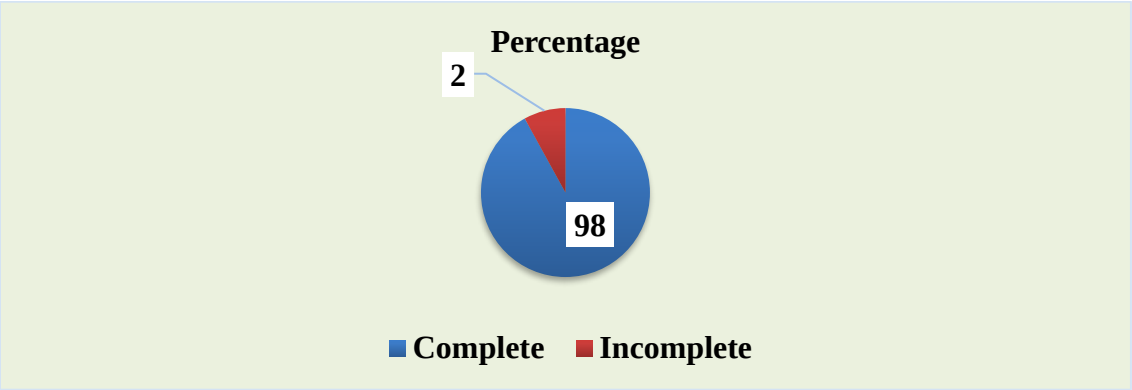


Figure 4.1: Response Rate, Source: Field Data (2025).

4.3 Demographic Information

Demographic characteristics were analyzed to provide contextual information about the respondents and to help interpret the study findings. Variables such as gender, age, years of service, deployment status, and duration of deployment are important because they may influence how soldiers experience operational stress and mental health challenges. Understanding these characteristics therefore helps to explain variations in psychological outcomes such as PTSD symptoms, coping behaviors, and perceptions of mental health interventions among the respondents.

4.3.1 Gender

The research findings indicates that a majority (192) of the respondents were male while the remaining minority (30) were female as indicated in Figure 4.2. Since the research employed a simple random sampling from the normal existing military setup, this situation clearly showed that there were more males in the institution.

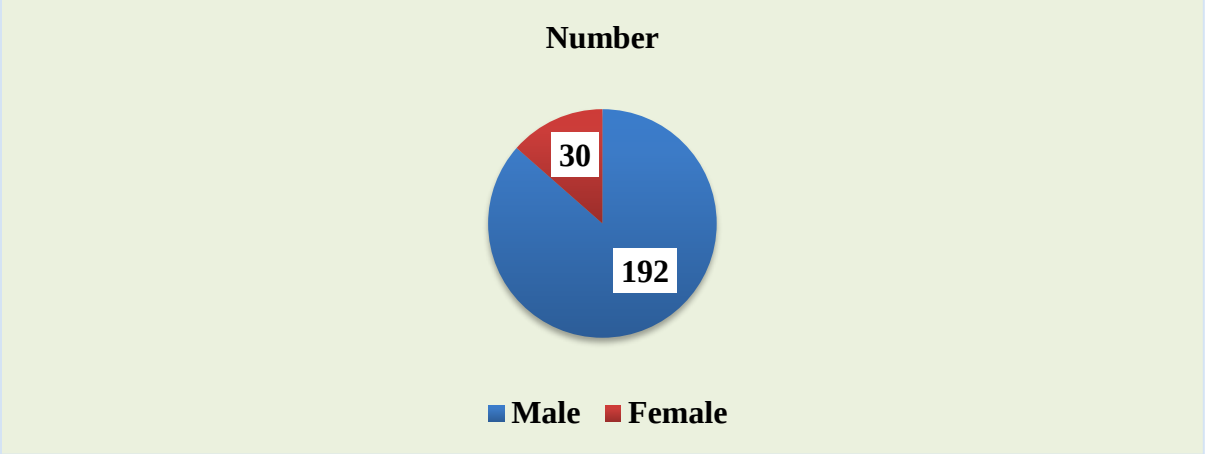


Figure 4.2: Gender of Respondents, Source: Field Data (2025).

4.3.2 Age of the respondents

The respondent's age categories as shown in Figure 4.3 indicate that 39 of the respondents were aged 25 years and below, 89 respondents were between the ages of 26-

35, 71 were between the ages of 36-45, while 23 were 46 years of age and above. The modal age was 26-35 years.

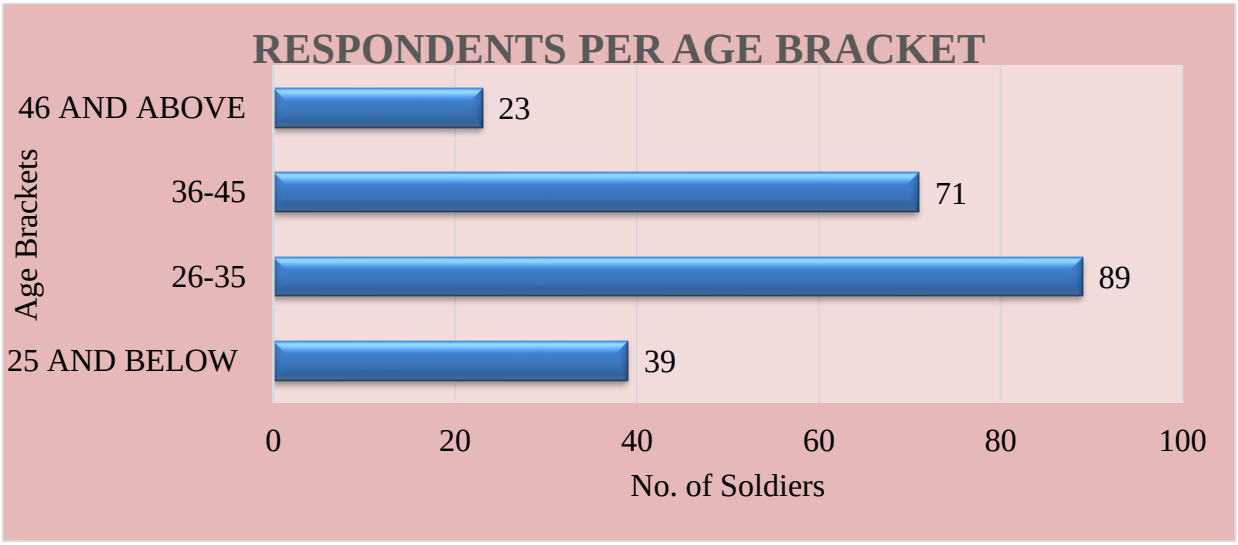


Figure 4.3: Age of Respondents, Source: Field Data (2025).

4.3.3 Number of years served by the respondents.

As shown in figure 4.4, most respondents have served for 11 to 20 years representing 47% of the respondents. 29% of the respondents have served for less than 10 years, 19% have served for 21 to 30 years while 5% of the respondents have more than 30 years of service in the KDF.

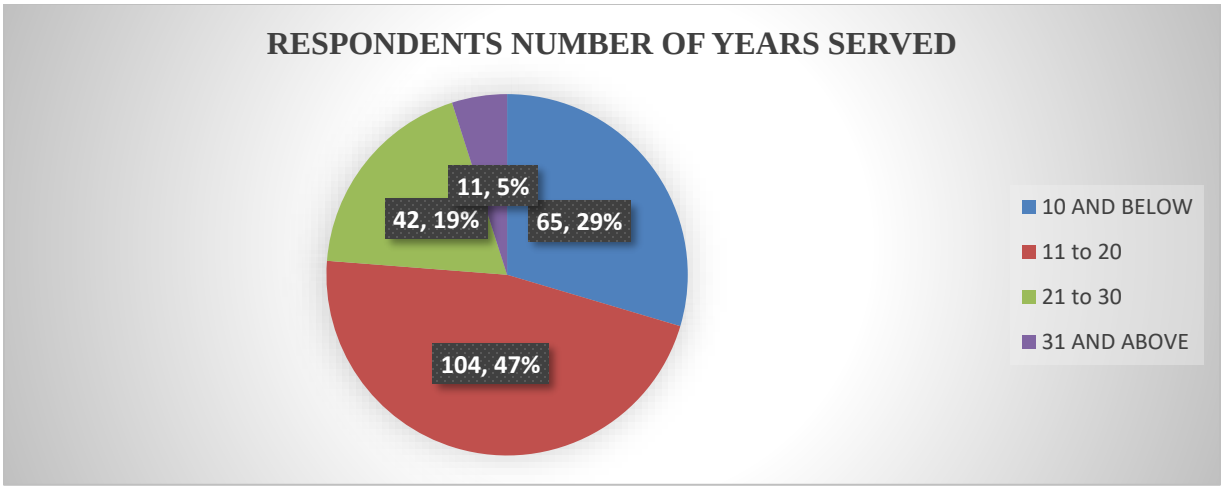


Figure 4.4: Number of years served by the respondents, Source: Field Data (2025).

4.3.4 Deployment status

As indicated in figure 4.5, out of the 222 respondents who completed the questionnaire, 86% have experienced deployment in combat area. However, 14% of the respondents have never been deployed in combat area.

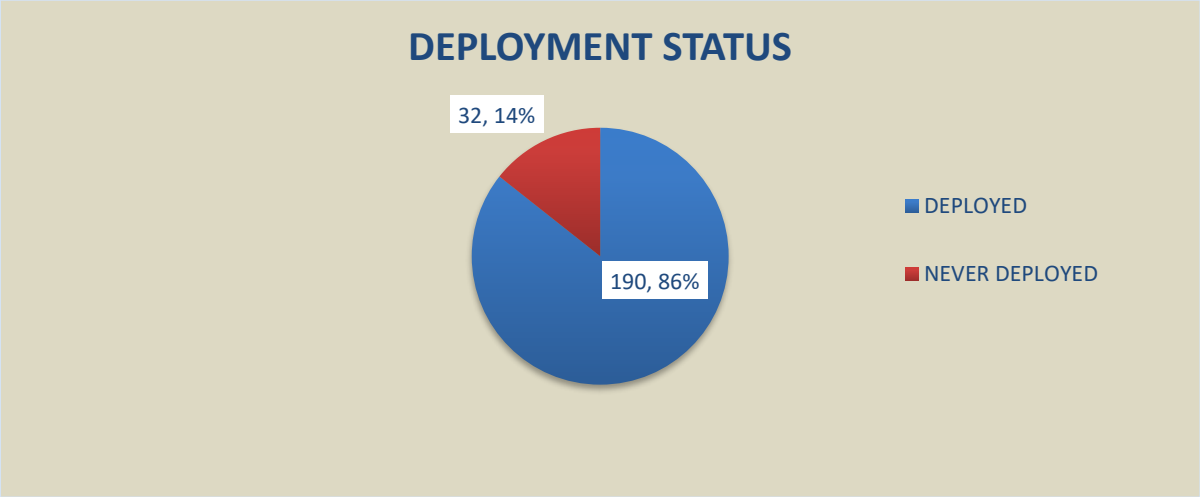


Figure 4.5: Deployment status of Respondents, Source: Field Data (2025).

4.3.5 Number of years deployed

Out of the 190 soldiers who have combat deployment experience, 59% have been deployed for more than one year but less than 2 years. Those who have three years and above of deployment form 25% of the respondents, while 16% have less than one year of battlefield deployment experience.

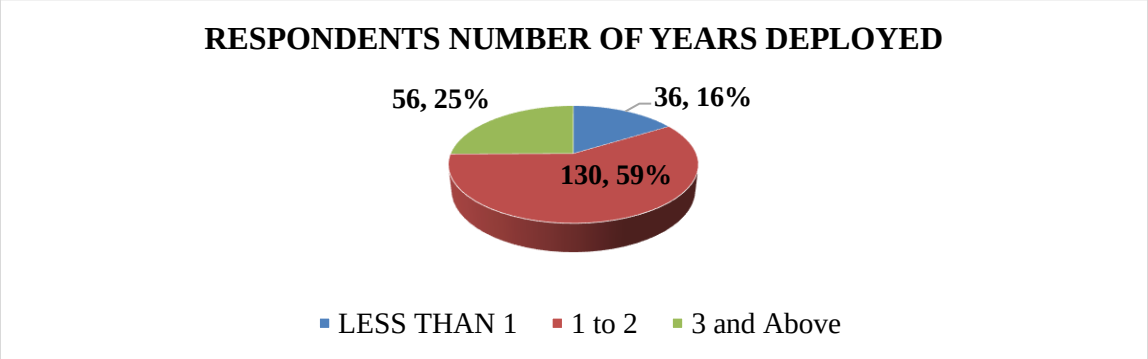


Figure 4.6: Number of years deployed by Respondents, Source: Field Data (2025).

4.4 Presentation of Research Analysis, Findings, and Interpretation

This study applied an explanatory sequential mixed methods approach, where quantitative data were analyzed first and qualitative data were subsequently used to explain and enrich the quantitative findings. Quantitative data obtained from the structured sections of the questionnaire were coded and analyzed using SPSS to generate descriptive statistics such as frequencies, percentages, and mean scores, which were presented in tables, charts, and figures to illustrate patterns related to psychosocial effects of deployment, prevalence of PTSD symptoms, substance use, and perceptions of mental health interventions among soldiers. Following this analysis, qualitative data obtained from open-ended questionnaire responses and structured interviews were analyzed using thematic analysis, where responses were coded and organized into themes reflecting soldiers' experiences, coping mechanisms, and views regarding mental health support within the Kenya Defence Forces. The qualitative findings were then integrated with the quantitative results at the interpretation stage to provide deeper explanations for the statistical trends observed, thereby enabling a more comprehensive understanding of the effects of African Union Mission deployment on the mental health of Kenyan soldiers. The data from the findings and interpretation of the reports were analyzed and presented as follows:

4.4.1 Psychosocial effect of deployment among Kenyan soldiers deployed by AMISOM

The first objective sought to establish the psychosocial effects of deployment among Kenyan soldiers deployed by the Africa Union Mission in Somalia. According to figure 4.8, 25 respondents confirmed to be affected by sleep disorder, 32 have experienced panic attacks, 17 have experienced loss of self-confidence, 51 reported that they had a feeling they could have done more while 78 respondents indicated they became bolder after the traumatic exposure.

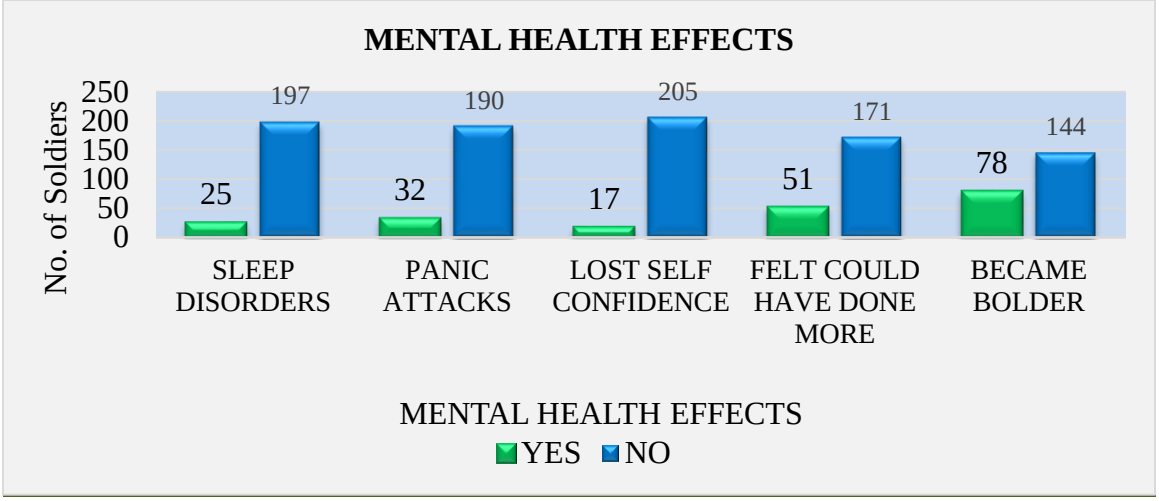


Figure 4.8: Mental health effects, Source: Field Data (2025).

4.4.2 Prevalence of PTSD among Kenyan soldiers deployed by AMISOM

4.4.2.1 Impact of event scale - revised score

The second objective sought to determine the prevalence of PTSD among Kenyan soldiers deployed by the Africa Union Mission in Somalia. According to figure 4.7, 219 respondents gave feedback to the IES – Revised Score. Those who scored below 24 were 181 (82%), followed by 19 (9%) who had a score of between 24 to 32, 17 (8%) of them scored between 33 and 36, while 2 (1%) had a score of 37 and above. Based on the IES-R scoring thresholds, respondents with scores between 33 and 36 are considered to have probable PTSD, while those scoring 37 or higher have a high likelihood of the disorder. In this study, 17 respondents fell into the probable PTSD range and 2 respondents scored in the high-likelihood category, giving a total of 19 individuals who may be experiencing PTSD. Out of the 219 respondents who completed the IES-R, this represents approximately 8.7 percent of the sample. This prevalence figure indicates that while the majority of respondents reported lower symptom levels, a notable minority showed scores suggestive of clinically significant post-traumatic stress.

Table 4.1: Impact of event scale - revised score, Source: Field Data (2025).

IES Score	Frequency	Percentage
Less than 24	181	82
24-32	19	9
33-36	17	8
More than 37	2	1

4.4.3 Use of substances as coping mechanisms for stress, among Kenyan soldiers deployed by AMISOM

4.4.3.1 Drug Abuse Screening Test

The third objective sought to assess the use of substances as coping mechanisms for stress, among Kenyan soldiers deployed by the Africa Union Mission in Somalia. In the drug use testing, using the DAST assessment tool, most of the respondents (45%) had a score of 1-2, 14% of the respondents had a score of 3-5, 39% had a score of zero, 1% had a score of 6-8 and while 1% had a score of more than 9. In this study, 39% of respondents scored 0, indicating no signs of substance use problems. The largest group (45%) scored between 1 and 2, suggesting low-level issues that could potentially develop into more serious problems if unaddressed. Fourteen percent scored between 3 and 5, indicating moderate risk and likely substance abuse, while 1% scored between 6 and 8, reflecting substantial problems, and another 1% scored above 9, indicating severe substance-related issues. Considering DAST-10 results of 3 or more as indicative of probable substance use disorder, 16% of the respondents in this study fall into this category. This prevalence highlights that while most respondents show no or low-level signs, a significant minority display scores suggestive of problematic drug use requiring further evaluation or intervention.

Table 4.2: Drug Abuse Screening Test, Source: Field Data (2025).

DAST Score	Frequency	Percentage
0	85	39
1-2	99	45
3-5	31	14
6-8	3	1
9 and above	1	1

4.4.4 Interventions used by KDF to manage mental health problems among Kenyan soldiers deployed by AMISOM

4.4.4.1 Mental Health Interventions

The fourth objective sought to evaluate the interventions used by KDF to manage mental health problems among Kenyan soldiers deployed by the Africa Union Mission in Somalia. The respondents had different responses to aspects of mental health intervention. According to Figure 4.9, 131 respondents somewhat agreed that they experienced stigma during treatment, 16 respondents indicated that they somewhat agreed that they were encouraged to seek assistance, 19 somewhat agreed that there is availability of mental health mechanism, and 56 respondents somewhat agreed that there is availability of mental health facilities. Among the interventions identified by the respondents include measures such as pre- and post-deployment psychological briefings, on-site combat stress control teams, peer support programs, and specialized psychiatric services within military hospitals like the Defence Forces Memorial Hospital Wellness Centre. Additional interventions were identified to include family counselling, substance abuse prevention and rehabilitation programs, resilience training, and confidential helplines as well as chaplaincy services to address the psychological needs of soldiers during and after deployment.

Respondents described pre-deployment interventions as present but limited. Most noted they received basic operational briefings, but these rarely addressed mental preparedness or psychological resilience. As one soldier explained, “We were trained for the mission, not for the stress that comes with it.” Another added that the guidance was “too general—nothing about coping with trauma.”

During deployment, in-field coping measures relied heavily on informal support systems rather than structured psychological services. Many soldiers reported using peer support, self-initiated coping strategies, and occasionally chaplaincy services to manage stress, noting the absence of mental health professionals in operational areas. One participant stated, “Out there, we just leaned on each other; there was no counsellor in the field.”

For post-deployment interventions, respondents indicated that counselling was available at military hospitals, but its coverage and consistency varied. Some found the sessions useful for reintegration, while others felt they were too brief or not tailored to individual experiences. As one soldier put it, “The counselling helped, but it was too short to deal with everything we carried home.” Many recommended strengthening support by offering more individualized debriefings, making post-deployment counselling mandatory, and reducing stigma around seeking psychological help.

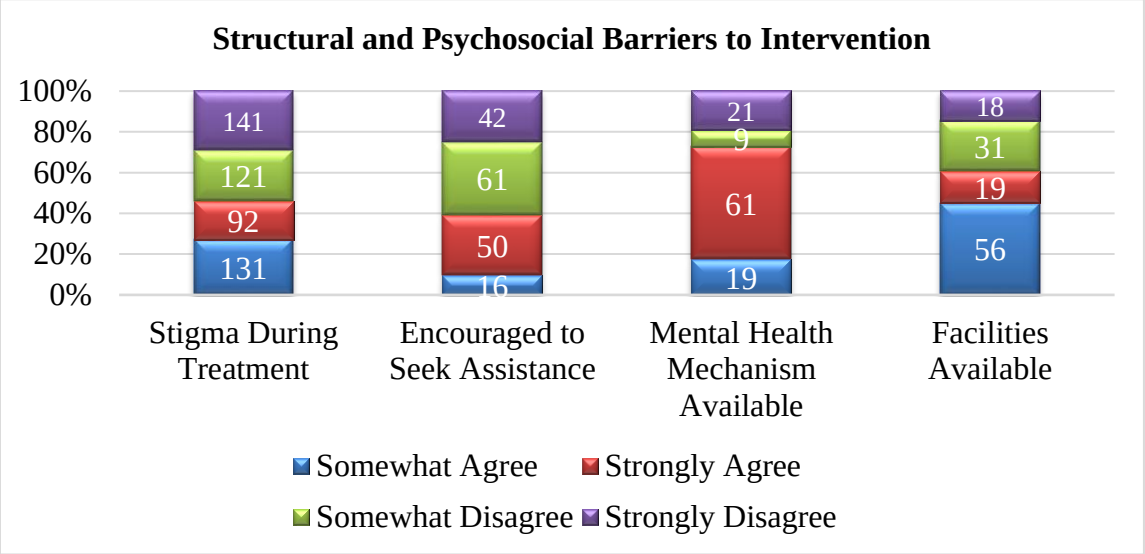


Figure 4.9: Perception of Mental Health Interventions, Source: Field Data (2025).

4.5 Chapter Summary

This chapter presented the analysis and findings of the study on the effects of African Union Mission deployment on the mental health of Kenyan soldiers in Somalia. The chapter began with the presentation of the response rate and demographic characteristics of the respondents, including gender, age, years of service, deployment status, and duration of deployment. It then presented the analysis of the study findings in relation to the research objectives, including the psychosocial effects of deployment, the prevalence of PTSD symptoms among soldiers, substance use as a coping mechanism, and the mental health interventions available within the Kenya Defence Forces. Quantitative findings were presented using descriptive statistics such as frequencies and percentages, while qualitative responses were analyzed thematically to provide deeper insights into soldiers' experiences and perceptions of mental health support. The integration of both quantitative and qualitative findings enabled a comprehensive interpretation of how deployment influences soldiers' mental health outcomes. The next chapter discusses these findings in relation to existing literature and theoretical frameworks and provides conclusions and recommendations derived from the study.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS, AND RECOMENDATIONS

5.1 Introduction

This chapter presents the final stage of the study by summarizing the key findings obtained from the data analysis and interpreting their implications in relation to the study objectives. It begins with a summary of the main results concerning the psychosocial effects of deployment, the prevalence of post-traumatic stress disorder (PTSD), patterns of substance use as coping mechanisms, and the availability of mental health interventions among Kenyan soldiers deployed under the African Union Mission in Somalia (AMISOM). The chapter then discusses these findings in relation to existing literature and the theoretical frameworks guiding the study, after which conclusions are drawn regarding the impact of deployment on soldiers' mental health stability. Based on these conclusions, recommendations are presented to inform policy and practice within the Kenya Defence Forces, and the chapter concludes by identifying areas for further research.

5.2 Discussions

The study included a total of 226 participants in the sample, and were supplied with questionnaires to gather data. However, after scrutinizing the responses, 4 questionnaires were found to be incomplete due to missing critical information, thus rendering them invalid for the analysis. A total of 222 questionnaires and interview reports representing 98% of the respondents were assessed to be valid. This sample size was sufficient for providing meaningful insights into the study's objectives.

The demographic characteristics of the sample revealed a significant gender disparity, with a clear majority of the respondents being male. Of the 222 respondents,192 respondents were male, while 30 were female. This disparity can be attributed to the inherent gender composition of the military institution, which traditionally has a higher male representation. Such a gender imbalance in military settings is consistent with trends observed in other similar studies (Smith *et al*., 2021).

The study findings show that 39 respondents aged 25 years and below, 89 aged between 26-35 years, 71 aged between 36-45 years and 23 participants were aged 46 years and above. A big percentage of the respondents were between 26-35 years age category, which is the typical age range for active military personnel (Jones & Harrison, 2019). This finding aligns with the general understanding that younger soldiers are more likely to be deployed and to face challenges related to mental health (Smith et al., 2021).

In reference to years of military experience, almost half (47%) of the respondents have experience ranging from 11 to 20 years. This is followed by 29% of the respondents having less than 10 years of service. Equally, 19% of the respondents possess 21 to 30 years of experience, and 5% have accumulated more than 30 years of military service. Accordingly, this points out to a majority of the respondents owning sufficient military experience and exposure that may influence their mental health handling ability during deployments (Robinson, 2023). Previous research identified prior military service experience promotes enhanced handling capacity of deployment associated stressors thus offering adequate preparedness for deployment-related mental health challenges (Robinson, 2023).

Apart from cumulative years of military experience, a majority 86% of respondents had some combat experience of about 2 years while a few, 14% of the respondents did not possess any combat deployment experience. This points to the widespread exposure of the sample to combat situations which forms a crucial factor in the analysis of mental health outcomes. Combat deployment is often associated with higher prevalence of mental health challenges like post-traumatic stress disorder (PTSD), depression, and anxiety (Patel & Singh, 2020). This aspect of combat experience is particularly important since such deployment is associated with high-intensity operational environments that is likely to have effects detrimental to the soldiers' mental health.

The length of combat exposure is directly associated with the amount of exposure to the accompanying combat stressors. Among 191 respondents who had combat experience, 59% had combat experience of one to two years, 25% had experienced three years or more of combat deployment, while 16% of the 191 respondents who had combat experience had less than one year of combat experience. The length of time spent in combat deployment

is known to contribute to the accumulation of psychological stress thus associated with long-term mental health challenges (Thompson *et al*., 2021). Out of these findings, it is imperative to have in place comprehensive mental health interventions targeted especially at soldiers with extended deployment record.

5.3.1 Psychosocial effects of deployment among Kenyan soldiers deployed by AMISOM

Effects of military combat deployment for instance in peacekeeping missions, on soldiers' mental health have been widely documented covering varied regions and contexts. The study of Kenya soldiers' deployment under AMISOM highlights similarities in the kind of mental health challenges with those experienced elsewhere worldwide. Just like in other documented military deployments, the Kenyan soldiers' service under AMISOM highlights the impact of combat stressors and associated traumatic experiences. Similar trends are observed among soldiers deployed under AMISOM who have been diagnosed with symptoms ranging from anxiety, panic attacks, and the emotional toll of losing comrades, leading to long-term psychological distress (Mutiso, 2024).

Whereas mental health challenges associated with combat deployment are often similar worldwide, the Kenyan troops under AMISOM were affected by some factors which are unique to the Somalia context. These factors include the nature of the peacekeeping mission alongside the cultural, political and socio-economic conditions of the host country. Their task entails operating in a constantly hostile environment where threat of attack and exposure to mass casualties is a daily reality (Mutiso, 2024). As reported by 78 respondents in the study who became bolder after traumatic exposure(s) contrasts with the experiences of soldiers in combat zones like Iraq and Afghanistan, where the focus is often on direct combat with enemy forces (Sanders *et al*., 2024). The AMISOM team was facing an enemy who often quickly metamorphosized from a normal civilian into a combatant engaging in a suicide attack. Therefore, the Kenyan soldiers' increased sense of boldness may stem from the necessity to adopt a survival mindset in unpredictable conflict environments.

On the other hand, one key similarity in the psychological effects of deployment across different military contexts is the prevalence of anxiety and panic disorders. For Kenyan

soldiers deployed in Somalia, 32 respondents reported experiencing panic attacks, a common symptom of PTSD and anxiety (Mutiso, 2024). This is consistent with the findings of global studies on soldiers returning from combat zones such as Iraq and Afghanistan, where anxiety disorders are prevalent among veterans (Hoge *et al*., 2023). The constant threat of violence, high-stress environments, and exposure to life-threatening situations contribute to these psychological responses, which can have long-lasting effects on the well-being of soldiers. The emotional and mental toll of such stressors is compounded by the separation from family, lack of communication, and the harsh realities of combat, as noted in the Kenyan study and other global research.

5.3.1 Prevalence of PTSD among Kenyan soldiers deployed by AMISOM

Post-Traumatic Stress Disorder (PTSD) is often associated with individuals who have been exposed to traumatic occurrences mainly war experiences, violent encounters, accidents, and natural traumatic disasters. The study found that out of 219 Kenyan soldiers deployed under the African Union Mission in Somalia (AMISOM) who completed the Impact of Event Scale–Revised (IES-R), 19 respondents, representing approximately 8.7% of the total sample population recorded scores indicative of Post-Traumatic Stress Disorder (PTSD). Out of the 219 respondents, 82% of the respondents, scored below 24 points thus indicating low levels of PTSD symptoms, 9% scored between 24 and 32 points, suggesting mild PTSD symptoms. This prevalence figure indicates that while the majority of respondents reported lower symptom levels, a notable minority showed scores suggestive of clinically significant post-traumatic stress. This distribution provides insight into the overall impact of the traumatic event on the respondents' mental health. The prevalence of PTSD condition among the KDF soldiers deployed under AMISOM in several ways resemble what has been identified in similar studies about mental health and conflicts elsewhere for instance in Iraq, (Hoge *et al*., 2023). Most respondents showed minimal distress, with a smaller number experiencing more significant symptoms thus displaying a common trend in line with global studies, which demonstrate that populations exposed to prolonged conflict, particularly soldiers, face substantial mental health burdens. The rates of PTSD are similar across different military personnel, including those from the U.S. and

European countries, highlighting a universal psychological toll in combat zones (Hoge *et al*., 2023).

Globally, PTSD prevalence is influenced by various factors such as the nature of trauma, access to mental health services, and socio-economic context. In developed countries like the United States, where PTSD among veterans of the Iraq and Afghanistan wars is well-documented, rates range around 20% of veterans (Breslau, 2019). Similarly, Kenyan soldiers serving in Somalia under AMISOM face heightened risk due to the prolonged exposure to violence, instability, and loss of comrades, aligning with the global trend of high PTSD prevalence in conflict zones. As highlighted by the WHO (2022), the psychological impacts of war and violence are universally damaging, with PTSD affecting approximately 3.9% of the global population. Despite the similarities, Kenyan soldiers may experience higher psychological distress due to the compounded stressors of economic hardship, political fragile environment, and inadequate mental health support, making PTSD more challenging to manage.

Another key similarity between the Kenyan case and other global populations is the role of gender in PTSD prevalence. It is also important to note that within the identified prevalence levels, women constituted about 12 percent of the total respondents, underscoring the need to consider gender dynamics in understanding the psychological and behavioral health challenges identified in this study. Globally, women are more likely to develop PTSD than men due to factors such as sexual violence, caregiving roles, and the psychological impact of war and displacement (Kessler *et al*., 2020). In Kenya, although male soldiers primarily constitute the majority of the military ranks, the overall societal context, including the experiences of women and children in conflict zones portrays similarities to global trends. The gendered impact of PTSD is profound in many African countries, with women, mostly civilians, disproportionately affected by sexual violence and other trauma in conflict zones (Dawson *et al*., 2020). The Kenyan experience, shaped by internal displacement and terrorist attacks, mirrors the broader African context, where both gender and socio-economic factors exacerbate PTSD's severity.

The accessibility of mental health services significantly influences PTSD outcomes, and this, explicably remains a stark contrast between Kenya and developed countries. For instance, in the U.S., military setup, veterans have relatively better access to mental health care, including PTSD counseling, specialized therapy, and rehabilitation services (Heaton & Loughran, 2024). On the contrary, locally the Kenyan soldiers and even civilians face significant barriers to accessing mental health services due to limited infrastructure. The Kenyan military, much like other African countries, suffers from inadequate psychological support systems, leading to underreporting and untreated PTSD cases. The Kenya Red Cross and other organizations have made efforts to provide psychosocial support, but such services remain insufficient (Kenya Red Cross, 2021). This lack of adequate care exacerbates the prevalence and severity of PTSD among the Kenyan soldiers, emphasizing the need for more robust mental health infrastructure.

5.3.1 Use of substances as coping mechanisms for stress, among Kenyan soldiers deployed by AMISOM

Substance abuse among soldiers, both during and after deployment, is a critical concern across various military contexts. In the case of Kenyan soldiers deployed to Somalia under the African Union Mission in Somalia (AMISOM), substance abuse was identified as a prevalent coping mechanism for stress. The study examined the use of substances as a coping mechanism for stress among Kenyan soldiers deployed under the African Union Mission in Somalia (AMISOM). Using Drug Abuse Screening Test (DAST), the study revealed varying levels of drug use.

Using Drug Abuse Screening Test (DAST), 45% of respondents scored between 1 and 2. This is an indication of a mild drug use, which aligns with research indicating that soldiers often turn to substances as a coping strategy for the psychological strain of deployment. Another 14% scored between 3 and 5, indicating moderate drug use, which is consistent with studies showing that prolonged deployments can lead to increased substance misuse. From the study 39% of the respondents scored zero, indicating no significant drug use, a finding in line with prior research that established that some soldiers maintain resilience despite deployment associated stress. A small percentage, 1%, scored between 6 and 8,

suggesting potential severe substance abuse, while another 1% scored above 9. These indicates the potential of the individuals being at high risk for addiction (Green, 2014). These results indicate the diverse nature of impact of deployment on soldiers' mental health, whereby some end up using substances as a way of coping with stress, while others show no significant drug use related issues. The varied nature of findings reinforces the need for personalised mental health support and drug abuse prevention measures for deployed military personnel. Overall, the Drug Abuse Screening Test proved effective in identifying levels of drug abuse among the respondents, an indicator of the ongoing mental health challenges faced by military personnel in and out of conflict zones deployment.

Globally, substance abuse among soldiers is a well-documented subject. This challenge is often exacerbated by the mental health strain associated with deployment. In the United States, an example of a developed country, soldiers returning from combat zones like Iraq and Afghanistan reported high rates of substance misuse. For instance, nearly 50% of veterans diagnosed with PTSD also suffer from substance use disorders (Hoge *et al*., 2020). The case of Kenyan troops under AMISOM depict similar trends whereby psychological distress ends up driving soldiers to substance abuse as a way to self-medicate their mental health challenges. The psychological and emotional pain induced by combat-related trauma, along with inadequate mental health support, often leads soldiers to turn to alcohol or other substances, thus creating a cycle of dependency and further psychological deterioration (Teeters *et al*., 2017).

Whereas there are identifiable similarities in the AMISOM context and other deployments world over, for example exposure to traumatic events and subsequent coping mechanism like substance abuse in the absence of appropriate mental health interventions, there are equally notable disparities. A notable contrast lies in the support systems available to soldiers from different countries. While soldiers in developed countries like the U.S. have access to structured rehabilitation programs and mental health care systems, Kenyan soldiers face a significant gap in post-deployment mental health services (Chibale *et al*., 2019). This disparity exacerbates the substance abuse problem, as there is insufficient support to address the root causes of their psychological strain.

Substance misuse also presents significant risks to both individual soldiers and their overall readiness. The adverse effects of substance abuse include impaired decision-making, health problems, and legal or disciplinary consequences (Barerah, 2018). These risks directly impact the soldier's ability to perform military duties and maintain readiness, which can be detrimental in high-stakes combat environments. Similarly, Kenyan soldiers who engage in substance abuse are not only jeopardizing their mental and physical health but also putting the success of missions and team cohesion at risk. The risks of substance misuse extend beyond the individual, affecting military operations while hindering the broader societal reintegration and stabilization process. The substance abuse problem will often lead to strained relationships with family and difficulties in adjusting to civilian life (Ofori *et al*., 2023).

5.3.1 Interventions used by KDF to manage mental health problems among Kenyan soldiers deployed by AMISOM

Due to unique challenges brought about by the deployment of soldiers in combat zones, mental health interventions initiatives have witnessed increased levels of attention over the years. This study, examined various interventional aspects including respondents' experiences regarding stigma in seeking intervention, the encouragement to seek assistance, and the availability of mental health support mechanisms and facilities. The findings reveal similarities as well as some disparities regarding practice and level of commitment in supporting soldiers affected with mental health challenges during and post deployment. One of the key highlights from the study is the role stigma plays in the mental health experience of soldiers. A substantial portion of respondents (92 individuals) strongly agreed that they experienced stigma during treatment, a worrisome trend that nevertheless aligns with research from global military forces. Stigma is a pervasive issue in military cultures worldwide, where seeking mental health care may be perceived as a sign of weakness (Claudia, 2021). This finding echoes the research of Hoge *et al*. (2020), who indicated that stigma remains one of the largest barriers preventing soldiers from seeking mental health support, while disrupting support for the soldiers who are professional management, regardless of the availability of resources. Whereas efforts are in place to

destigmatize mental health through policy and sensitization, stigma still remain a big challenge in addressing mental health support.

The study findings reflect a mixed perception regarding the efforts employed in encouraging affected soldiers to seek professional assistance. While a portion of respondents somewhat agreed (16 respondents) or strongly agreed (50 respondents) that they were encouraged to seek assistance, the majority of responses held a contrary view. For instance, 121 respondents disagreed that they were encouraged to seek assistance, highlighting the limited motivation on soldiers to reach out for mental health help and support. This situation identifies with findings from other military contexts where soldiers often refrain from seeking help due to a lack of support or encouragement (Vogt D. F., 2018). So as to bridge the gap created by stigma, western militaries have tackled this issue by implementing leadership training that emphasizes the importance of mental health care and creating an environment where soldiers feel safe to seek assistance, acritical approach that can be valuable in the KDF context (Claudia, 2021). The KDF could potentially improve these efforts by increasing leadership involvement and peer support to encourage soldiers to access available services. The KDF can also tame the effects of stigma through introducing mental health check-ups as part of the routine personnel medical checkups.

When examining the availability of mental health mechanisms and facilities, the data shows a general situation of limited access. For example, some respondents strongly agreed that mental health mechanisms (61) and facilities (56) were available, others (121 and 31, respectively) somewhat disagreed with these statements. This points to a gap in service provision, which is a common challenge for militaries globally. As noted by Klint (2018), even in well-resourced military systems, there exists a disconnect between the availability of mental health services and their actual accessibility. This is often predominant for soldiers stationed in remote or high-risk environments with lean logistical support naturally constrained by weather, enemy and terrain. Kenyan soldiers deployed in Somalia face similar challenges, where the availability of facilities may not directly translate to ease of access, especially on the battlefield or in isolated locations.

As a stopgap measure, militaries have sought to employ mobile health platforms and virtual counselling services before the victim can relocate to well established facilities to seek comprehensive support. The study identifies that a portion of respondents (19 strongly agreed and 56 somewhat agreed) felt there was some degree of availability of mental health mechanisms. This trend mirrors global efforts to incorporate technology into military mental health care, such as telehealth services, which have proven effective in improving access for soldiers in combat zones (Jacobson *et al*., 2021). Kenya's adoption of mobile health solutions and virtual counselling sessions, supported by partnerships with organizations like the World Health Organization (WHO), is a commendable step toward addressing the access issue, ensuring that soldiers receive the critical mental health support despite the geographical limitations of their deployments.

Despite the efforts, a significant portion of respondents (31) somewhat disagreed that mental health facilities were available, highlighting ongoing challenges in the infrastructure and resource allocation for mental health services in the Kenyan military. This reflects a broader issue in many African countries, where the lack of trained mental health professionals and specialized care facilities can hinder the effectiveness of interventions (Ofori *et al*., 2023). In contrast, militaries in Western countries, which have more established systems for mental health support, continue to improve access by integrating mental health services into standard military health systems (Hoge *et al*., 2020). This contrast underscores the need for further investment in mental health infrastructure within African militaries to ensure that soldiers have timely access to preventive, diagnostic, therapeutic, rehabilitative and palliative services in regard to mental health support.

Furthermore, the perception of mental health care interventions in AMISOM contrasts with the success of group therapy and peer support systems, which have been widely used in military worldwide. Research indicates that group therapy, including trauma-focused cognitive-behavioral therapy (CBT), has been effective in helping soldiers manage combat-related stress (Vogt *et al*., 2018). Peer support programs, in particular, are a good fit by the virtue of military work that revolves around teams, and they work to reduce feelings of isolation and provide a sense of camaraderie vital for soldiers' mental well-

being. The KDF has incorporated peer support, but the data suggests that its effectiveness may still be limited by the stigma and reluctance among soldiers to engage fully with mental health services. This highlights the importance of continued leadership efforts in normalizing mental health care and fostering an open, supportive culture (Romaniuk & Kidd, 2021).

5.3 Summary of Main Findings

The purpose of this summary is to highlight the major results obtained from the analysis of both quantitative and qualitative data regarding the effects of African Union Mission deployment on the mental health of Kenyan soldiers in Somalia. The findings are organized according to the thematic areas derived from the study objectives, namely the psychosocial effects of deployment, the prevalence of post-traumatic stress disorder (PTSD), the use of substances as coping mechanisms for stress, and the interventions used by the Kenya Defence Forces to manage mental health challenges among deployed soldiers.

5.3.1 Psychosocial Effects of Deployment

The study established that deployment to combat environments exposes soldiers to significant psychosocial stressors that affect their mental well-being. Many soldiers reported experiencing psychological challenges such as sleep disturbances, panic attacks, feelings of guilt related to traumatic events, and loss of self-confidence following exposure to combat situations. These effects were mainly associated with witnessing casualties, sustaining injuries during attacks, prolonged exposure to high-threat environments, and difficult living conditions in operational areas. In addition to combat-related experiences, environmental and occupational stressors such as harsh weather conditions, separation from family, demanding operational schedules, and limited recreational opportunities also contributed to psychological strain among deployed soldiers.

5.3.2Prevalence of Post-Traumatic Stress Disorder (PTSD)

The findings from the Impact of Event Scale–Revised (IES-R) indicated that a portion of the respondents exhibited symptoms consistent with post-traumatic stress disorder. While most soldiers reported relatively low levels of PTSD symptoms, a notable minority showed

scores suggestive of probable PTSD and severe stress reactions. This finding demonstrates that although not all soldiers develop clinically significant trauma responses, exposure to combat conditions places some personnel at a measurable risk of experiencing post-traumatic stress symptoms that may require psychological evaluation and support.

5.3.3 Substance Use as a Coping Mechanism

The study also found that some soldiers used substances as a coping mechanism for stress associated with deployment experiences. Results from the Drug Abuse Screening Test (DAST-10) showed that while a large proportion of respondents did not report substance use problems, a significant minority exhibited patterns suggesting potential substance misuse. These behaviors were often linked to attempts to manage psychological distress, emotional strain, and difficulties adjusting during or after deployment.

5.3.4 Interventions Used to Manage Mental Health Challenges

The study further established that although some mental health interventions exist within the Kenya Defence Forces, their accessibility and effectiveness remain limited in certain contexts. Soldiers reported reliance on informal peer support systems during deployment, while structured psychological support services such as counseling and debriefing were reported to be inconsistent or inadequately implemented. In addition, stigma surrounding mental health within the military culture was identified as a major barrier to seeking professional help, as some soldiers feared negative perceptions or potential career consequences. These factors collectively limit the effectiveness of existing mental health support mechanisms for deployed personnel.

5.4 Conclusion

This study examined the effects of African Union Mission deployment on the mental health of Kenyan soldiers in Somalia. The conclusions presented in this section are organized according to the study objectives and thematic areas derived from the findings.

5.4.1 Psychosocial Effects of Deployment

The study concludes that deployment in conflict environments exposes soldiers to significant psychosocial stressors that affect their mental well-being. Soldiers deployed under the African Union Mission in Somalia experience psychological challenges such as sleep disturbances, anxiety, emotional distress, and feelings of guilt associated with traumatic experiences during combat operations. In addition to direct combat exposure, environmental and occupational stressors such as harsh living conditions, prolonged separation from family, and demanding operational schedules further contribute to psychological strain. These findings demonstrate that combat deployment creates both operational and environmental pressures that collectively affect soldiers' mental health stability.

5.4.2 Prevalence of Post-Traumatic Stress Disorder (PTSD)

The study concludes that while the majority of soldiers do not develop severe trauma-related disorders, a measurable minority of personnel exhibit symptoms consistent with post-traumatic stress disorder. Exposure to traumatic events during deployment increases the risk of psychological distress among some soldiers, highlighting the need for early identification and intervention. The presence of PTSD symptoms among a segment of the respondents indicates that deployment experiences can have lasting psychological effects even after soldiers return from combat environments.

5.4.3 Substance Use as a Coping Mechanism

The study further concludes that substance use emerges as a coping mechanism among some soldiers attempting to manage psychological stress associated with deployment. Although most soldiers did not demonstrate problematic substance use patterns, a notable minority displayed behaviors suggesting potential substance misuse. This finding suggests that unmanaged psychological stress may lead some soldiers to adopt maladaptive coping strategies, which may further compromise their mental health and overall well-being.

5.4.4 Mental Health Interventions within the Kenya Defence Forces

The study concludes that while the Kenya Defence Forces have introduced some mental health interventions for deployed soldiers, the availability and effectiveness of these services remain inconsistent. Soldiers often rely heavily on informal peer support during deployment due to the limited presence of structured psychological services in operational areas. In addition, stigma associated with seeking mental health support continues to discourage some personnel from accessing available services. These challenges limit the effectiveness of existing mental health programs and highlight the need for stronger institutional support systems.

5.4.5 Conclusion in Relation to the Theoretical Framework

The findings of this study support the relevance of Cognitive Behavioral Theory and Humanistic Existential Theory in understanding soldiers' mental health experiences during deployment. Cognitive Behavioral Theory explains how exposure to traumatic events during deployment influences soldiers' thought patterns, emotional responses, and coping behaviors, which may manifest in symptoms such as anxiety, PTSD, or substance use. At the same time, Humanistic Existential Theory highlights the importance of psychological support, social connection, and a sense of purpose in promoting resilience among soldiers. Together, the two theories complement each other by explaining both the psychological processes associated with trauma and the role of supportive environments in promoting mental well-being.

5.4.6 Contribution to Knowledge

This study contributes to existing knowledge by providing context-specific empirical evidence on the mental health effects of African Union peacekeeping deployment on Kenyan soldiers, an area that has received limited scholarly attention. The study demonstrates that mental health outcomes among deployed soldiers are influenced not only by exposure to combat trauma but also by environmental stressors, institutional support systems, and cultural attitudes toward mental health within the military. The findings therefore extend existing literature by highlighting the interaction between operational

stress, coping mechanisms, and institutional mental health interventions within the context of African peacekeeping missions.

5.4.7 Overall Conclusion

Overall, the study concludes that deployment under the African Union Mission in Somalia has measurable psychological effects on a portion of Kenyan soldiers. While many soldiers demonstrate resilience in coping with deployment-related stress, a significant minority experience psychological challenges such as trauma-related stress, emotional strain, and maladaptive coping behaviors. These outcomes are further influenced by operational pressures, stigma surrounding mental health, and gaps in institutional support systems. Addressing these challenges requires strengthening mental health policies, improving access to psychological services, and fostering a supportive military culture that recognizes mental health as an essential component of operational readiness and soldier well-being.

5.5 Recommendations

Based on the conclusions of this study, several measures are recommended to improve the management of mental health challenges among Kenya Defence Forces personnel deployed in combat environments.

5.5.1 Psychosocial Effects of Deployment

To address the psychosocial effects associated with combat deployment, the study recommends strengthening pre-deployment psychological preparedness and resilience training for soldiers. Such programs should equip soldiers with coping strategies for managing stress, trauma exposure, and environmental pressures experienced in combat environments. Existing institutional structures such as the KDF Wellness Centre and the Defence Forces Compensation and Welfare Branch, including unit welfare offices, should be further supported to expand psychological resilience training and provide continuous mental health awareness programs for soldiers and their families.

5.5.2 Prevalence of Post-Traumatic Stress Disorder (PTSD)

To improve early detection and management of trauma-related conditions among soldiers, the study recommends that the Kenya Defence Forces institutionalize regular psychological screening before and after deployment. These assessments should be conducted using standardized mental health screening tools to identify early signs of PTSD and other trauma-related conditions. The KDF Wellness Centre and the Defence Forces Compensation and Welfare Branch should play a central role in coordinating these screening programs and ensuring that soldiers identified as requiring support receive timely professional care.

5.5.3 Substance Use as a Coping Mechanism

To reduce the risk of substance misuse among soldiers experiencing deployment-related stress, the study recommends strengthening preventive mental health education and counseling services within the military. Programs aimed at addressing stress management, healthy coping mechanisms, and substance abuse prevention should be implemented through the Wellness Centre, military medical services, and unit welfare offices. These services should also emphasize confidential support systems to encourage soldiers to seek assistance without fear of stigma.

5.5.4 Mental Health Interventions within the Kenya Defence Forces

To improve the effectiveness of existing mental health interventions, the study recommends strengthening the coordination, accessibility, and awareness of available mental health support services within the Kenya Defence Forces. Although structures such as the KDF Wellness Centre and the Defence Forces Compensation and Welfare Branch already provide psychological and welfare support to soldiers and their families, their services should be expanded and integrated more closely with deployed units to ensure consistent psychological support before, during, and after deployment. Additionally, military leadership should actively promote mental health awareness to reduce stigma associated with seeking psychological assistance.

5.6 Area of Further Study

The predominance of male respondents in this study reflects the gender composition of most military units, however, it also reveals a gap in understanding how gender may shape the mental health experiences of military personnel. Future research should focus on the influence of gender on mental health challenges due to combat deployment since gender-specific stressors such as gender-based discrimination, sexual harassment, and caregiving expectations could influence the manifestation and reporting of mental health disorders. Comprehensive studies that explore these dimensions can inform the development of more inclusive and effective mental health interventions that address the distinct needs of all genders within military settings.

Currently, mental health assessments are not consistently embedded within the standard medical evaluation processes for deployed and returning soldiers as well as those serving in routine deployment. Introducing mental health as a routine item in medical check-ups would ensure early identification and intervention for conditions such as PTSD, anxiety, depression, and substance use disorders. Future research should focus on the feasibility, acceptability, and effectiveness of implementing standardized mental health screenings during pre-deployment, in-theatre, and post-deployment phases as well as for personnel in routine deployment. Such studies could be used to evaluate the long-term impact of these routine checks on reducing chronic mental health conditions and improving reintegration outcomes.

The use of technology such as telemedicine platforms, mobile health applications, and online counseling services offers a promising avenue for enhancing mental health support among deployed personnel. Given the logistical and cultural barriers to accessing in-person mental health care in combat zones, technology can play a critical role in bridging the gap between need and access. Future studies should focus on the applicability, reliability, and user experience of digital mental health interventions tailored to the unique operational environment of soldiers. Research in this area could also explore how data security, confidentiality, and trust affect the uptake of such technologies within the military context.

REFERENCES

Aggarwal, R. &. (2019). Study designs: Part 1 – Descriptive studies. *Perspectives in Clinical Research*, 34–36.

Al-Khamis, M. &. (2020). Terrorism exposure and post-traumatic stress disorder in Kenya: Mental health impact of al-Shabaab attacks. *Journal of Aggression, Conflict and Peace Research*, 145–157.

Al-Saadi, T. A.-K.-H. (2021). Prevalence and determinants of post-traumatic stress disorder in conflict-affected populations: A global perspective. *International Journal of Mental Health Systems*, 1–12.

American Psychiatric Association. (2022). Trauma- and Stressor-Related Disorders. *Diagnostic and Statistical Manual of Mental Disorders*.

Association, A. P. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.).* Washington, D.C.: American Psychiatric Publishing.

Bantjes, J., Meintjes, J., & Kagee, A. (2020). Childhood trauma and PTSD among children in post-conflict Uganda: Understanding the mental health burden. *Journal of Traumatic Stress*, 118-127.

Barerah, S. (2018). Forms of Drug Abuse and Their Effects. *Alcoholism and Drug Abuse Weekly*, 1(1):13-19.

Bentley, K. H. (2020). Addressing the limitations of cognitive behavioral therapy for trauma: Integration with emerging approaches. *Journal of Clinical Psychology*, 187–200.

Brancu, M. T. (2017). he impact of deployment on posttraumatic stress disorder in military veterans: Implications for mental health and readiness. *Journal of Traumatic Stress*, 221–229.

Breslau, N. (2019). The epidemiology of PTSD: The challenge of preventing and treating PTSD in populations affected by trauma. *Journal of Clinical Psychiatry*, 1-7.

Camille, M., & Kathrin, G. (2024). The psychological impact of combat-related loss: A study of military personnel in high-risk environments. *Journal of Military Psychology*, 162-178.

Charlson, F. D. (2024). The burden of mental disorders in the world – A GBD 2021 analysis in the WHO regions. *European Psychiatry*, 65.

Claudia. (2021, May 18). *Reducing the stigma and encouraging mental health care in the military*. Retrieved from Health.Mil: https://health.mil

Creswell, J. W. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.* Thousand Oaks, CA: SAGE Publications.

Cross., K. R. (2021). *Psycho-social support and PTSD recovery in displaced communities in Kenya*. Retrieved from Kenya Red Cross: https://www.redcross.or.ke/mentalhealth

Cusack, K. J. (2020). Psychological treatments for adults with posttraumatic stress disorder: A systematic review and meta-analysis. *Cognitive Behaviour Therapy*, 81–106.

Dawson, A. J. (2020). Gender-based violence and post-traumatic stress disorder among women in conflict-affected African countries. *Journal of Interpersonal Violence*, 1–21.

Dawson, R., Jackson, M., & Schaal, S. (2020). Gender-based violence and PTSD in conflict-affected regions of Africa: A case study from the Democratic Republic of Congo. *African Journal of Psychiatry*, 350-357.

Dekel, R., & Goldblatt, H. (2008). Is there intergenerational transmission of trauma? The case of combat veterans' children. *American Journal of Orthopsychiatry*, 78, 281–289.

Dinesh, B., Alex, T., & Norman, S. (2013). What is mental health? *nternational Journal of Social Psychiatry*.

Engel, G. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, 196(4286), 129.

Fikretoglu, D. L. (2021). A longitudinal examination of the impact of deployment-related experiences on mental health and well-being in Canadian Armed Forces personnel. *BMJ Military Health*, 212–219.

Future Learn. (2023). What is a mental health intervention? *Psychology and Mental Health* .

Gaylord, K. M. (2006). The psychosocial effects of combat: the frequently unseen injury. *Crit Care Nurs Clin North Am*, 8(3) : 349 – 57 .

Goodtherapy. (2023). *Goodtherapy*. Retrieved from Goodtherapy: https://www.goodtherapy.org

Green, K. T. (2014). Drugs and Combat Stress: Substance Use as a Coping Mechanism among Military Personnel and Veterans. *Substance Use & Misuse*, 561–569.

Greenberg, N. L. (2020). Psychological well-being in peacekeepers: A review of the literature. *Journal of Peace and Conflict Studies*, 234-245.

Halvorson, A. (2010). Information for Behavioral Healthcare Specialists working with Veterans and Service Members. *Understanding the Military: The Institution, the Culture, and the People*.

Hanson, W. E., Zhou, H., Armstrong, D. L., & Liwski, N. T. (2022). A humanistic approach to mental health assessment, evaluation, and measurement-based care. In J. J. Andrews, S. R. Shaw, J. F. Domene, & C. A. McMorris, *Mental health assessment, prevention, and intervention: Promoting child and youth well-being* (pp. pp. 361–390). Springer Nature Switzerland AG.

Heaton, P., & Loughran, D. (2024). Economic consequences of PTSD for military veterans: A longitudinal analysis. *Journal of Economics and Military Service*, 56-74.

Heaton, P., & Loughran, D. (2024). Economic consequences of PTSD for military veterans: A longitudinal analysis. *Journal of Economics and Military Service*, 37(1), 56-74.

Herman, J. L. (2020). Trauma and recovery: The aftermath of violence--from domestic abuse to political terror. *Basic Books*.

Hicks, R. W. (2023). *Telehealth could strengthen military's mental health care: Policy considerations for the U.S. Department of Defense.* Santa Monica, CA: RAND Corporation.

Hoge, C. W. (2020). Improving mental health care for soldiers deployed in Iraq, Afghanistan, and Syria. *New England Journal of Medicine*, 365–372.

Illiness, N. A. (2023). *Veterans and Active Duty*. Retrieved from National Alliance on Mental Illiness: https://www.nami.org

Institute of Medicine. (2013). *Substance Use Disorders in the US Armed Forces.* Washington, DC: National Academies Press.

International Crisis Group (ICG). (2012). *"Kenya's Military Intervention in Somalia", International Crisis Group, Africa Report No.184.* Brussels.

International Crisis Group. (2012). *"The Kenyan Military Intervention in Somalia" Africa Report No.184.* Brussels.

Jacobson, I. G., Ryan, M. A., & Hooper, T. I. (2020). Alcohol and drug misuse among U.S. military veterans: A longitudinal analysis. *Journal of Traumatic Stress*, 12–21.

Jacobson, I. G., Ryan, M. A., & Hooper, T. I. (2021). Digital mental health interventions for military personnel: The effectiveness of mobile apps and telemedicine. *Journal of Military and Veterans' Health*, 45–55.

Janoff-Bulman, R. (1992). *Shattered Assumptions: Towards a New Psychology of Trauma.* New York, NY: Macmillan.

Jeff A. Harwood, J. F. (2019). Substance Use Disorders Among Veterans in a Nationally Representative Sample: Prevalence and Associated Functioning and Treatment Utilization. *Addiction*, 1–12.

Jonathan. (2022). Mental Health Interventions: How To Help Someone With a Mental Health Problem. *The Recovery Village*.

Jones, N., & Berman, M. (2022). Combat stress and mental health in peacekeepers: Implications for African Union missions. *Military Medicine*, 237-244.

Joseph, S. &. (2020). Humanistic psychology, positive psychology and the pursuit of well-being. *Journal of Humanistic Psychology*, 3–18.

Kenya Ministry of Lands, P. W. (2023). *Land Zoning and Infrastructure Mapping Report: Nairobi Region.* Nairobi: Ministry of Lands, Public Works & Transport.

Kenya Ministry of Lands, P. W. (2023). *Survey and mapping report: Langata Barracks and surrounding military installations.* Nairobi, Kenya: Government Printer.

Kessler, R. C., Petukhova, M., & Sampson, N. A. (2020). Global trends in the epidemiology of post-traumatic stress disorder: Prevalence, risk factors, and mental health consequences. *Lancet Psychiatry*, 290-301.

Khajehnasiri, F. K. (2018). Psychometric properties in instruments evaluation of reliability and validity. *The 19th Conference of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Middle East & Africa 2017 proceedings (published 2018)*, 1-9.

Kim, H. K. (2021). he Importance of Pilot Testing: Developing and Refining Research Instruments Before the Main Study. *International Journal of Environmental Research and Public Health*, 1–12.

Kinyanjui, C., Ochieng, R., & Wambui, C. (2021). Addressing PTSD in post-terrorism Kenya: The role of community-based interventions. *International Journal of Mental Health Systems*, 45-56.

Kira, I. A., Lewandowski, L., & Khamis, V. (2020). SD in Africa: A review of prevalence, causes, and consequences. *African Journal of Trauma*, 98-110.

Krippner, S., & Pitchford, D. B. (2018). Humanistic and existential approaches in the treatment of PTSD. In D. Kalisch, J. Maidman, & R. House, *Humanistic psychology: Current trends and future prospects* (pp. pp. 174–185). Routledge: Taylor & Francis Group.

Learn, F. (2023). Future Learn.

Limo, J., Ochieng, M. S., & Nyambura, L. (2020). Substance abuse among military personnel in Kenya: An exploratory study. *African Journal of Health Sciences*, 198–210.

Lungu, S., & Moyo, B. (2020). Mental health challenges in African peacekeepers: Addressing the psychological needs of soldiers in conflict zones. *African Journal of Psychiatry*, 456–463.

M, B., & J, C. (2023). Traumatic Events. *Healthline*.

MacDonald, C., Chamberlain, K., & Nigel, L. (1995). "Posttraumatic Stress Disorder(PTSD) and its Effect in Vietnam Veterans: The New Zealand Experience,". *New Zealand Journal of Psychology*, Vol. 24, No. 2.

Madison, L., & Jamia, B. (2022). Impact of Cognitive Behavioral Therapy on military suicide rates. *Theses, Dissertations and Capstones*, 1711.

Maggie, D., & Osman, G. (2022). 'The Home Stress': The Role of Soldiers' Family Life on Peacekeeping Missions, the Case of Sierra Leone. *International Peacekeeping*.

Makau, J. N. (2020). Stigma and barriers to mental health care among trauma survivors in Kenya: Implications for post-traumatic stress disorder interventions. *African Journal of Trauma and Stress Studies*, 42–56.

Martin, B., Trine, F., Anne, M., & Klint, J. (2018). Deployment of personnel to military operations: Impact on mental health and social functioning. *Campbell Collaboration: Education Coordinating Group*.

Mayo Clinic. (2018). *Post-traumatic stress disorder (PTSD).* © 1998-2022 Mayo Foundation for Medical Education and Research (MFMER).

McCabe, C. T. (2021). Mental health outcomes of military deployment: A systematic review and meta-analysis. *Military Psychology*, 391–405.

McInerney, . &. (2022). Resilience enhancing programs in the U.S. military: An exploration of theory and applied practice. *Military Psychology*, 241-252.

Medicentres. (2022). *Coping Strategies For Better Mental Health*. Retrieved from Medicentres: https://www.medicentres.com

Melinda, S., & Jeanne, B. (2023). Combat stress and psychological trauma: A review of recent findings. *Journal of Clinical Psychology*, 1451-1462.

Military.com Network. (2023). Deployment: An Overview. *Military Advantage*.

Muller, J. H. (2021). Moral injury, mental health, and spiritual well-being among military personnel: Lessons from recent conflicts. *Frontiers in Psychiatry*, 1–9.

Muriithi, M. W., Musyimi, C. W., & Ndetei, D. M. (2019). The psychological effects of post-election violence in Kenya: An exploration of PTSD symptoms among internally displaced persons. *Journal of Affective Disorders*, 50-59.

Mutiso, J. (2024). The mental health challenges of peacekeepers: A case study of Kenyan soldiers in Somalia. *African Journal of Peace and Security*, 123-135.

Mwangi, J. M., & Ndirangu, L. (2022). Mental health stigma among African peacekeepers: A critical review. *Psychiatry Journal of Africa*, 182-189.

National Institute of Mental Health. (2020). Post Traumatic Stress Disorder. *National Institutes of Health*, NIH Publication No. 20-MH-8124.

Nguyen, T. H., Moyo, B., & Tshabangu, I. V. (2022). Substance abuse among African military personnel: Factors influencing usage and the need for rehabilitation programs. *Military Psychology*, 151–160.

Njaro, J. W. (2021). Assessment of the psychosocial and economic impacts of Operation Linda Nchi on KDF soldiers and their families. Nairobi, Kenya: Kenyatta University.

Novotney, A. (2020). Stopping military and veteran suicides. *American Psychological Association*, Vol. 51, No. 1 .

Obondo, A., Ochieng, D., & Chuma, J. (2020). PTSD among drought-affected communities in Kenya: A review of mental health needs and responses. *International Journal of Environmental Research and Public Health*, 1720.

Ofori, A., Lungu, S., & Chibuye, M. (2023). Post-deployment substance abuse and mental health in the African military: A call for comprehensive care. *African Journal of Military Psychology*, 92–99.

Ofori, A., Lungu, S., & Chibuye, M. (2023). Post-deployment substance abuse and mental health in the African military: A call for comprehensive care. *African Journal of Military Psychology*, 92–99.

Ogolla, D., & Oyieke, A. (2021). Alcohol and drug abuse among Kenyan soldiers: A case study of the Kenya Defense Forces. *Journal of Substance Use & Misuse*, 1578–1583.

O'Toole, B. I., Outram, S., Catts, S. V., & Pierse, K. R. (2010). The mental health of partners of Australian Vietnam veterans three decades after the war and its relation to Veteran military service, combat, and PTSD. *The Journal of Nervous and Mental Disease*, 198(11), 841–845.

Paul, M. (2022). What's the big idea behind cognitive behavior theory, and what are the implications for therapeutic interventions? *Cognitive Behavior Theory*.

Peter Nasved, C. C. (2023). Effects of deployment on mental health in modern military forces: A review of longitudinal studies. *Journal of Military Veteran's Health*.

Peter, N., Cristina, C., Stephen, P., & Eva, P. (2021). Effects of deployment on mental health in modern military forces: A review of longitudinal studies. *Journal of Military and Veterans' Health*, Volume 20 No. 3.

Phemelo, T. M. (2017). *Mental Illness and Substance use among Military Personnel in Botswana Defence Force.* Nairobi: University of Nairobi.

Proctor, C. (2021). Humanistic psychology in the workplace: Considering the implications for organizational well-being. *Journal of Humanistic Psychology*, 1027–1045.

Regehr, C. C.-P. (2021). A systematic review of interventions to reduce mental health stigma in the military and veteran populations. *Military Psychology*, 470–484.

Robbins, S. P. (2021). *Organizational Behaviour (8th ed.).* Melbourne, Australia: Pearson Australia.

Robinson, L. J. (2023). Military Experience and Psychological Resilience: Understanding the Impact of Service Duration on Mental Health Outcomes. *Journal of Military, Veteran and Family Health*, 57–69.

Romaniuk, M., & Kidd, C. (2021). The Psychological Adjustment Experience of Reintegration Following Discharge from Military Service: A Systematic Review. *Journal of Military and Veterans' Health*, Volume 26 No. 2.

Sanders, D., Putnam, C., & Frankart, C. (2024). Psychological impacts of combat injuries: A review of recent research. *Journal of Military Health*, 145-155.

Schneider, K. J. (2022). *The Handbook of Humanistic Psychology: Theory, Research, and Practice (3rd ed.).* Thousand Oaks, California: SAGE Publications.

Shaffer, H. J., Hall, M. N., & Vander, B. J. (1999). Estimating the prevalence of disordered gambling behavior in the United States and Canada: a research synthesis. *Am J Public Health*, 89(9):1369–1376.

Skeen, S. L.-A. (2021). Mental health services in Africa: Challenges, opportunities, and strategies for improvement. *The Lancet Psychiatry*, 1009–1017.

Smith, B. K. (2022). Opioid misuse among U.S. soldiers: Post-deployment challenges and treatment options. *Journal of Military and Veterans' Health*, 232–240.

Smith, B. N. (2021). Gender Differences in the Military: Mental Health and Deployment Experiences among U.S. Service Members. *Journal of Traumatic Stress*, 495–507.

Smith, L., Thompson, M., & Ngugi, B. (2021). Post-deployment challenges and mental health outcomes for AMISOM soldiers. *Journal of Military and Veterans' Health*, 100-113.

Sommers, M. (2019). Mental health in African peacekeepers: Overcoming barriers to care. *Global Health Perspectives*, 29-42.

Sourabh, Y., & Peer. (2023). Humanistic Theory of Personality: Definition And Examples. *Helpfulprofessor.com*.

Taherdoost, H. (2022). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management (IJARM)*, 18–27.

Teeters, J., Lancaster, C., Brown, D., & Back, S. (2017). Substance use disorders in military veterans: prevalence and treatment challenges. *Substance Abuse and Rehabilitation*, 8, 69-77.

Thole, H. H., Stefan, P., Inja, V., & Nexhmedin, M. (2021). Global burden of post-traumatic stress disorder and major depression in countries affected by war between 1989 and 2019: a systematic review and meta-analysis. *BMJ Glob Health*, 6(7).

Union., A. (2020). *Annual report on the African Union Mission in Somalia (AMISOM).* Addis Ababa: African Union.

Vogt, D. F. (2018). Vogt, D., Fox, A. B., Di Leone, B. A. L., & Schnurr, P. P. *Psychiatric Services*, 123–130.

Vogt, D. V. (2018). Gender differences in combat-related stressors and mental health outcomes among U.S. service members and veterans. *Journal of Traumatic Stress*, 845–855.

Wadham, B. A. (2024). A Scoping Review of Interventions Targeting the Mental Health of Australian Veterans. *International Journal of Environmental Research and Public Health*, 796.

Walugembe, J. K. (2018). Post-traumatic stress disorder among formerly abducted individuals in Northern Uganda: Prevalence, risk factors, and comorbidities. *African Health Sciences*, 1045–1056.

(WHO), W. H. (2022). *World Mental Health Report: Transforming mental health for all.* Geneva, Switzerland: World Health Organization.

(WHO), W. H. (2022). *World Mental Health Report: Transforming Mental Health for All.* Geneva, Switzerland: World Health Organization.

World Health Organization. (2004). *Concepts, Emerging Evidence, Practice aims to bring to life the mental health dimension of health promotion.* Geneva: World Health Organization.

Xia, Y. Z. (2024). Post-deployment mental health challenges among military personnel in conflict regions: A cross-cultural perspective. *Journal of Military and Veterans' Health*, 55–68.

Yaghubi, H. F. (2020). Psychometric Properties of the Persian Version of the Drug Abuse Screening Test (DAST-10) among Iranian Adults. *Iranian Journal of Psychiatry and Behavioral Sciences*, 1–8 (.

Zefferman, M. R. (2021). An evolutionary theory of moral injury with insight from Turkana warriors. *Evolution and Human Behavior*, 271–282.

Zhang, Y. W. (2022). Post-traumatic stress disorder prevalence and risk factors among conflict and disaster-affected populations in low- and middle-income countries: A systematic review and meta-analysis. *BMC Psychiatry*, 1–15.

APPENDICES

Appendix I: Introduction letter to participants

Prince Okioma Nyanumba,

Africa Nazarene University,

P.O. Box 53067 – 00200,

Nairobi, Kenya.

Dear Sir/Madam,

RE: REQUEST FOR RESPONSE TO DATA COLLECTION INSTRUMENT

I am carrying out research as a pre-requisite for attainment of the Master of Science Degree in Governance Peace & Security. My study topic is: An analysis of the effect of soldiers' deployment on mental health stability: a case study of African Union Mission in Somalia (AMISOM). The findings of this study will be used to improve the address of mental health among soldiers in the Kenya Defense Forces which you are part of.

I kindly request your collaboration in responding to the attached data collection instrument. As an assurance of confidentiality and to enable your ease in responding to the questionnaire, kindly do not write your personal details or name on it for purposes of maintenance of anonymity.

Thank you in advance for your cooperation.

Yours faithfully,

Nyanumba, P.O.

If you agree to participate in the study, kindly sign below

Signature……. Date……

Appendix II: Questionnaire for Collecting Data

Introduction

My name is Prince Okioma Nyanumba, a student at Africa Nazarene University. I am carrying out a study to determine the mental health effects of military deployment on deployed soldiers in AMISOM. The information you give will be handled confidentially, in addition, the information will only be used for academic purposes.

Instructions

1. Please, DO NOT write your name or identification on this form.
2. Kindly answer all questions.
3. Tick in the bracket with the suitable answer and complete the blank spaces as guided.
4. Please submit the questionnaire after completion.

Sociodemographic Factors

Please tick **Yes** or **No** in the spaces provided appropriately.

1. What is your gender?

   Male [ ]

   Female [ ]

2. What is your age?

Below 25 years [ ]

26 - 35 years [ ]

36 - 45 years [ ]

46 years and above [ ]

3. How many years have you served in the KDF?

Less than 10 years [ ]

11 to 20 years [ ]

20 to 30 years [ ]

More than years [ ]

4. Have you been deployed or expecting to be deployed in AMISOM?

Yes [ ]

No [ ]

5. What is your AMISOM deployment status?

Under one year [ ]

More than one year but less than two years [ ]

Over two years [ ]

Psychological Effects

Please tick **Yes** or **No** in the spaces provided appropriately.

1. I experienced/used to experience sleep disorders, nightmares, fear of recurrence, flashbacks, etc. after witnessing traumatic events in the AMISOM mission.

Yes [ ]

No [ ]

2. I experience/used to experience panic attacks (increased heart rate, rapid breathing, increased sweating, fatigue etc.) on sudden loud noises after returning from AMISOM mission.

Yes [ ]

No [ ]

3. I lost my self-confidence/felt overly vulnerable or incapable of defending my team, myself and my country after experiencing traumatic events in the AMISOM mission.

Yes [ ]

No [ ]

4. During my deployment in Somalia, I had the feeling that I could have done more to prevent my comrades' injuries.

Yes [ ]

No [ ]

5. After witnessing traumatic experiences in the AMISOM, I became bolder and braver (psychologically resilient) in defending my fellow soldiers and my country against anything deemed to be an enemy.

Yes [ ]

No [ ]

Impact of Event Scale- Revised

Below is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you DURING THE PAST SEVEN DAYS with respect to traumatic event(s), which occurred during your deployment in Somalia. How much were you distressed or bothered by these difficulties? Item Response Anchors are 0 = Not at all; 1 = A little bit; 2 = Moderately; 3 = Quite a bit; 4 = Extremely.

	Stressful Events During and After the AMISOM mission.	**Not at all (0)**	**A little bit (1)**	**Moderately (2)**	**Quite a bit (3)**	**Extremely (4)**
1.	Any reminder evokes memories of it.					
2.	I have difficulties staying asleep					
3.	Other things keep bringing it back to my mind					
4.	I find myself agitated and annoyed					
5.	I try not to allow myself to become upset when I consider it or am reminded of it					
6.	Even when I don't mean to, I think of it					
7.	It doesn't seem real or like it has happened to me					
8.	I avoid being reminded of it					
9.	I sometimes see images of it in my head					
10.	I am easily frightened and nervous					

11.	I make effort to ignore it					
12.	I know I still feel a lot about it, but I just can't seem to get over them					
13.	I feel a little numb about it					
14.	I perceive that I'm behaving or feeling like I'm back there					
15.	I have a hard time getting asleep					
16.	I have a lot of strong emotions about it					
17.	I make effort to forget about it					
18.	I find it difficult to pay attention					
19.	I get physical symptoms when I think about it, such as sweating, breathing difficulties, nausea, or pounding in my heart					
20.	I dream about it					
21.	I feel vigilant and cautious					
22.	I endeavor never to talk about it					
	Total IES-R Score					

Drug Abuse Screening Test (DAST-10) Questionnaire

The following questions concern information about your possible involvement with drugs not including alcoholic beverages during the past 12 months. Please read each statement and appropriately mark "Yes" or "No".

	During and after the AMISOM mission	**Yes**	**No**
1.	Have you used drugs other than those required for medical reasons?		
2.	Do you abuse more than one drug at a time?		
3.	Are you always able to stop using drugs when you want to? (If never use drugs, answer “Yes.”		
4.	Have you had "blackouts" or "flashbacks" as a result of drug use?		
5.	Do you ever feel bad or guilty about your drug use? If never use drugs, choose “No.”		
6.	Does your spouse (or parents) ever complain about your involvement with drugs?		
7.	Have you neglected your family because of your use of drugs?		
8.	Have you engaged in illegal activities in order to obtain drugs?		
9.	Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?		
10.	Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding, etc.)?		
Total Score			

Mental Health Interventions

1. Please tick in the spaces below where appropriate.

	Somehow agree (1)	**Strongly agree (2)**	**Somewhat disagree (3)**	**Strongly disagree (4)**
Soldiers face stigma while seeking mental health treatment.				
Kenya Defense Forces (KDF) personnel are strongly encouraged to get professional assistance for mental health issues.				
The Ministry of Defense (MoD) has put in place proper mechanisms to safeguard the soldier's mental health.				
The Ministry of Defense (MoD) has mental health intervention facilities and services during and post deployment				

2. Please answer the following questions appropriately.

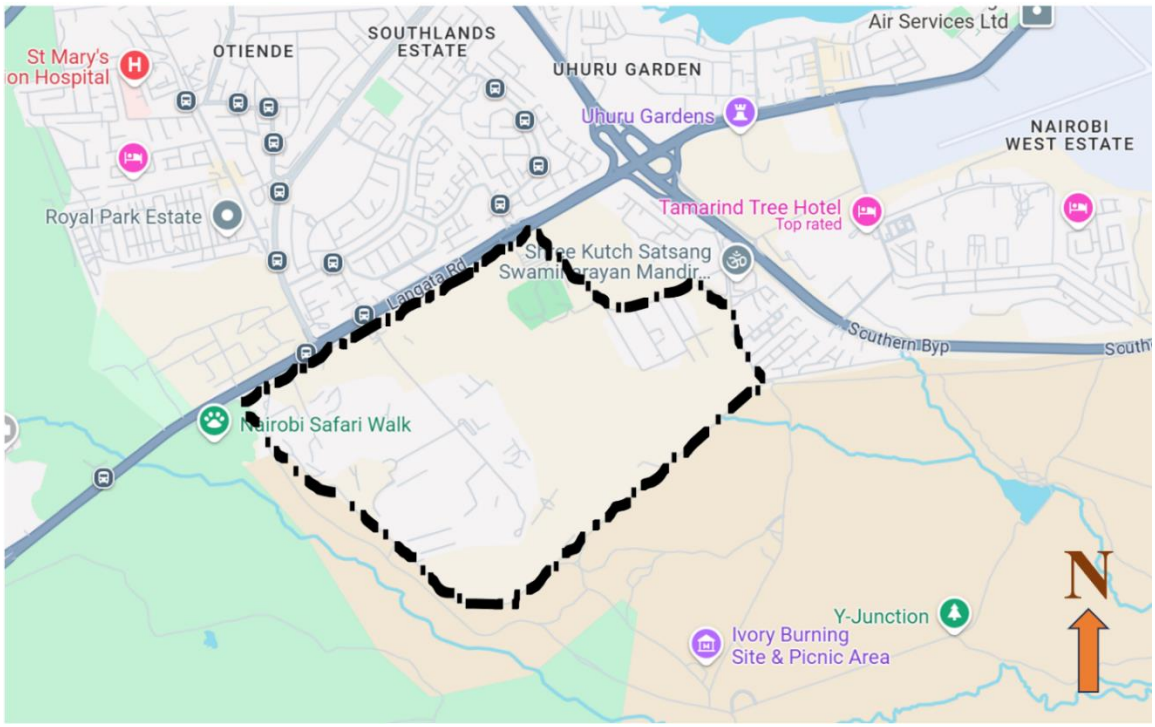
What kind of mental health preparation were you given before deployment?

What measures did you or your colleagues take when faced with mental health challenges during deployment?

Did you receive any counseling or psychological support during or after your deployment? If so, what type of support did you receive, and how effective was it in helping you?

What steps may be taken, in your opinion, to increase the efficiency of mental health support which Kenya Defense Forces troops receive?

Appendix III: Map of the Study Area



Source: https://www.google.com/maps

Appendix IV: University Introductory Letter/ Authority to conduct research

AFRICA NAZARENE
UNIVERSITY

P.O.Box: 53067 – 00200
Nairobi, Kenya.
Tel: 020 252 7170/1 – 5
Email: vc@anu.ac.ke
www.anu.ac.ke

16th April 2025

TO WHOM IT MAY CONCERN

RE: RESEARCH PERMIT: PRINCE OKIOMA NYANUMBA

Prince Okioma Nyanumba Reg. No. (22J01DMGP026) is a Bonafide postgraduate student at Africa Nazarene University, pursuing a master's degree in governance, Peace and Security Studies. This program entails Coursework and Thesis. He has successfully completed coursework and defended his thesis proposal entitled:

"An Analysis of the Effect of Soldiers' Deployment on Mental Health Stability: A Case Study of African Union Mission in Somalia (Amisom"

Any assistance accorded to him to facilitate data collection and complete his thesis will be highly appreciated.

Sincerely.

Dr. Simon Obwatho
Interim DVC, Academic & Student Affairs

Appendix V: Research License-NACOSTI

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **781074**

Date of Issue: **10/May/2025**

RESEARCH LICENSE

This is to Certify that Mr.. PRINCE Okioma NYANUMBA of Africa Nazarene University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: AN ANALYSIS OF THE EFFECT OF SOLDIERS' DEPLOYMENT ON MENTAL HEALTH STABILITY: A CASE STUDY OF AFRICAN UNION MISSION IN SOMALIA (AMISOM) for the period ending : 10/May/2026.

License No: **NACOSTI/P/25/4173281**

781074

Applicant Identification Number

Deputy Director
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

Appendix VI: Authority to Conduct Research at Langata Barracks

MAJ P N OKIOMA
TACTICAL TRANSPORT WING
P O Box 672-000521
00100 GPO Nairobi
0713003608
13 May 2025

COMMANDING OFFICER 7 KENYA RIFLES

Sir,

ACADEMIC RESEARCH VISIT REQUEST
MAJ P N OKIOMA

1. I am the above-named officer currently holding the appointment of flight commander training in Tactical Transport Wing, No.2 squadron of the Kenya Airforce.

2. I am currently undertaking a masters programme in **Governance, Peace and Security at Africa Nazarene University (ANU)**. Whereas this constitutes a personal initiative, it conveniently aligns with the Kenya Defence Forces' policy on personnel continuous learning and professional development.

3. Having finished my coursework, I am currently working on the research work, with my research topic being "**An analysis of the effect of soldiers' deployment on mental health stability: a case study of African Union Mission in Somalia (AMISOM)**".

4. Based on these, I am kindly seeking your authority to access your unit for data collection in support of my research work. Please note that I will adhere to all security protocols and the study will be for academic purposes only.

5. Attached herewith is the university introductory letter and a Research License from the National Commission for Science,Technology & Innovation (NACOSTI) for your perusal.

6. Sir, I look forward to your kind consideration.

MAJ P N OKIOMA