UNIVERSITY OF GHANA

COLLEGE OF HUMANITIES

UNIVERSITY OF GHANA BUSINESS SCHOOL

MILITARY DEPLOYMENT, CROSS-CULTURAL COMPETENCE, RESILIENCE AND MENTAL HEALTH OUTCOMES OF GHANAIAN MILITARY EXPATRIATES

BY:

SAMPSON KUDJO ADETI (MAJOR GENERAL - RTD)

(10120346)

THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON, IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF PhD IN HUMAN RESOURCE MANAGEMENT DEGREE

DEPARTMENT OF ORGANIZATION AND HUMAN RESOURCE MANAGEMENT

DECEMBER 2022

DECLARATION

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

.....

SAMPSON KUDJO ADETI
(10120346)

Date: December 26, 2022

CERTIFICATION

I hereby certify that this thesis was supervised in accordance with procedures laid down by the University.

Prof Kwesi Amponsah-Tawiah, Date: 26 December 2022

Lead Supervisor,

Head of Department,

Department of Organisation and Human Resource Management,

University of Ghana Business School

Prof Joseph Osafo, Date: 26 December 2022

Co-Supervisor,

Head of Department,

Department of Psychology,

University of Ghana

Prof Kwasi Dartey-Baah, Date: 26 December 2022

Co-Supervisor,

Acting Director,

Office of Institutional Advancement,

University of Ghana

DEDICATION

It was a challenging task I set myself in 2017. I hope many others will acknowledge that academic achievements are attained by sacrifice and hard work.

To my late dear Mum whose memories continue to inspire, and with whom I would have wished to share the pleasant memories of yet another academic achievement;

my wife, Jacqueline, and daughters, Yayra and Xorla.

ACKNOWLEDGEMENTS

There are many people who deserve to be mentioned, either as individuals or collectively, as far as my enrolment and subsequent study on the PhD programme is concerned.

Specially, however, my sincere gratitude goes to all my distinguished lecturers, whose unflinching commitment, support, and dedication to duty ensures that the noble ideals, vision and mission of the University of Ghana Business School (UGBS) is sustained. Same gratitude goes to the support staff of UGBS for their invaluable contributions during the period of my study at the School.

In Prof Kwesi Amponsah-Tawiah, Prof Joseph Osafo and Prof Kwasi Dartey-Baah, I found not only academicians but also mentors for their human qualities, exceptional patience, attention to details and painstakingly reading through all the drafts, correcting errors and making insightful suggestions; they also made available useful references from their personal libraries. I am equally grateful to other senior members of the UGBS for sharing their knowledge, experiences, and occasional words of encouragement at critical times of the period

I am eternally grateful also to my colleague on the 2017-2021 PhD programme, Dr Alex Anlesinya, for his immeasurable assistance and collaborations during the period. I wish him and his dear wife everlasting joy in sharing Alex's success in all his future endeavours.

I am thankful to the Military High Command (including the Commandant of the Ghana Armed Forces Command and Staff College) for expeditiously granting permission for the study to be carried out. Based upon my initial interactions, it was obvious that the leadership of the Ghana Armed Forces was interested in the novelty of the study and the objectives the researcher had outlined. Not the least, the appointment of enthusiastic and willing senior officers, who served

as research assistants, in the critical phases of administering and retrieving questionnaire, coordinating, and facilitating interviews during data collection ensured any possible biases were eliminated, and consequently, ensuring the credibility of the study. In this regard, I wish to specifically mention Lieutenant Colonel, Abdul Wahab Issah (Deputy Director Army Training, Army HQ), Naval Captain Ramzey Bamba (Director Naval Administration, Naval HQ) and Group Captain Fiifi Boadu (Director Air Force Peace Support Operations, Air Force HQ), just to mention but these three, for their tremendous support.

To God be the Glory, for He has done great things in my life.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND ACRONYMS

AO	-	Area of Operation
APA	-	American Psychological Association
APRS	-	Army Post-deployment Reintegration Scale
AU	-	African Union
AUDIT	-	Alcohol Use Disorder Identification Test
AVE	-	Average Variance Extracted
BHL	-	Behavioral Health Laboratory
BSI	-	Brief Symptom Inventory
CES	-	Combat Experience Scale
CD-RISC	-	Connor-Davidson Resilience Scale
CFA	-	Confirmatory Factor Analysis
CFI	-	Comparative Fit Index
CMIN/DF	-	Minimum Discrepancy per Degree of Freedom
CR	-	Composite Reliability
CVE	-	Cumulative Variance Extracted
DoD	-	Department of Defense
DMSS	-	Defense Medical Surveillance System
DRRI-2	-	Deployment Risk and Resiliency Inventory-2
DSM	-	Diagnostic Statistical Manual
ECOMOG	-	ECOWAS Ceasefire Monitoring Group
ECOWAS	-	Economic Community of West African States
EFA	-	Exploratory Factor Analysis

GAF	-	Ghana Armed Forces
GHANBATT	-	Ghana Battalion
GFI	-	Goodness of Fit Index
KMO	-	Kaiser-Meyer-Olkin
IES-R	-	Impact of Event Scale-Revised
IRB	-	Institutional Review Board
JCO	-	Junior Commissioned Officer
MINURSO	-	United Nations Mission for the Referendum in Western Sahara
MINUSCA	-	United Nations Multidimensional Integrated Stabilization Mission in the Central African Republic
MINUSMA	-	Multidimensional Integrated Stabilization Mission in Mali
MIRECC	-	Mental Illness Research, Education, Clinical Centre
MMA/CFA	-	Measurement Model Assessment/Confirmatory Factor Analysis
MONUSCO	-	United Nations' Organization Stabilization Mission in the Democratic Republic of Congo
NCO	-	Non-Commissioned Officer
ONUC	-	United Nations Operation in Congo
OR	-	Other Ranks
PCL-C	-	PTSD Checklist
PClose	-	"Close fit" (RMSEA of 0.05 or less)
PDHA	-	Post-Deployment Health Assessment`
PDHRA	-	Post-Deployment Health Re-assessment
PDSS	-	Post-Deployment Social Support
PKO	-	Peacekeeping Operations

PSDI	-	Positive Symptom Distress Index
PTSD	-	Post-Traumatic Stress Disorder
PSO	-	Peace Support Operations
RMSEA	-	Root Mean Square Error of Approximation
SAS	-	Statistical Analysis System
SEA	-	Sexual Exploitation and Abuse
SFL	-	Standardised Factor Loadings
SEM	-	Structural Equation Modeling
SNCO	-	Senior Non-Commissioned Officer
SPSS	-	Statistical Package for Social Scientists
STI	-	Sexually Transmitted Infection
SOP	-	Standard Operational Procedure
SWO	-	Senior Warrant Officer
TBI	-	Traumatic Brain Injury
TCC	-	Troops Contributing Countries
TLI	-	Tucker Lewis Index
TSES-R	-	Traumatic Stress Exposure Scale- Revised
UG-ECH	-	University of Ghana Ethics Committee of Humanities
UN	-	United Nations
UNAMID	-	United Nations Mission in Darfur
UNAMSIL	-	United Nations Mission in Sierra Leone
UNDOF	-	United Nations Disengagement Observer Force
UNEF	-	United Nations Emergency Force

UNFICYP	-	United Nations Mission in Cyprus
UNIFIL	-	United Nations Interim Forces in Lebanon
UNISFA	-	United Nations Interim Security Force in Abyei
UNMIK	-	United Nations Interim Administration Mission in Kosovo
UNMIL	-	United Nations Mission in Liberia
UNMISS	-	United Nations Mission in South Sudan
UNMOGIP	-	United Nations Military Observer Group in India and Pakistan
UNOCI-GHAV	-	United Nations Operations in Cote d'Ivoire – Ghana Aviation
UNOSOM	-	United Nations Mission in Somalia
UNPROFOR	-	United Nations Protection Force
UNTSO	-	United Nations Truce Supervision Organizations
VFI	-	Variance Inflation Factor

LIST OF SOME DEFINITIONS USED IN THE STUDY

Health - a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. (World Health Organization; Park, Nam, Kim, Lee, Lee, K-S, 2018; Grad, 2002)

Trauma - an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being (Lewis-O'Connor, Warren, Lee, Levy-Carrick, Grossman, Chadwick, Stoklosa & Rittenberg, 2019; Substance Abuse and Mental Health Services Administration (SAMHSA)

Stress - the degree to which one's current life circumstances are labeled as uncontrollable, unpredictable, and/or overly burdensome (Crandall, Cheung, Miller, Glade & Novilla, 2019)

Mental Health – a state of well-being wherein individuals recognize their own abilities, can cope with stress, and can contribute to their community (Park, Nam, Kim, Lee, Lee, & Koh, 2018; Herrman, Saxena, & Moodie, 2005)

Mental Health Disorder (also known as mental illness) - a diagnosable illness that affects a person's ability to work or carry out other daily activities and engage in satisfying personal relationships (Herrman, Saxena & Moodie, 2005; WHO)

Resilience - the ability to bounce back from adversity, frustration, and misfortune and is essential for the effective leader. (van Breda, 2018; Garrett, 2016)

Hardiness - the personality characteristic with the capability of enduring weariness and exertion from stress, pain, and suffering while strengthening from the process

Peacekeeping - the designation and interposition of a force for the maintenance of peace and the protection of civilians (Kirscher & Miller, 2019; Chaudry, Vermedal, Fagerholt, Fauske, & Stalhane, 2019)

Post-Traumatic Stress Disorder (PTSD) - a chronic mental disorder, which is diagnosed in people who are exposed to trauma; a disabling state which frequently lasts for years if untreated (McCormack, 2009; Goejian, Stienberg, Najarian, Tashjian & Pynoos, 2000)

Service - A branch of the armed forces – the Army, Navy or Air Force.

Victorian Notion – the ancient notion (especially during the British Civil War) that military personnel have peculiar traits that make them "super-human".

ABSTRACT

International peacekeeping activities involves exposure to multiple sources of stressful and traumatic conditions which increase the risk of military expatriates experiencing various forms and degrees of mental health problems. As a result, there is a heightened scholarly interest in understanding how military deployment practices contribute towards averting and minimising mental health cases such as PTSD and depression. However, as the efficacy or protective effects of military deployment practices appears to have been called into question due to the increasing prevalence of mental health problems among troops, it is possible that the role of military deployment practices in reducing mental health problems may be affected by vital personal resources like cross-cultural competence and resilience of the individual service personnel. As these relationships have been less examined, this study sought to examine the role of military deployment practices, resilience, and cross-cultural competence on mental health outcomes of the Ghanaian military expatriates. To achieve this, the study adopted the pragmatism paradigm, and employed sequential mixed research method to collect survey data from 405 military expatriates and interview data from 18 military expatriates of the Ghana Armed Force across various ranks. Individuals were selected by stratification (by ranks) and simple random selections from Formations, Commands and Units for the quantitative study, and the stratified and purposive sampling methods to select the respondents for the qualitative data collection. The quantitative data were analysed using SPSS version 22.0 and AMOS version 21.0 statistical software to obtain descriptive statistics, such as mean scores and standard deviation, Pearson correlation, and structural equation modeling while the qualitative data was analysed using thematic data analysis. The study found that: first, since there are several triggers of stressful and traumatizing conditions in international peacekeeping theatres, it is inferred that peacekeeping operations are extremely dangerous to

the mental or psychological wellbeing of deployed troops. However, effective military deployment practices have the capacity to minimize or even prevent incidences of depression and PTSD among troops deployed in international peacekeeping operations.

Second, it is possible for individual soldiers with adequate cross-cultural competence to excel psychologically in different mission areas and diverse cultural settings especially in the context of international peacekeeping operations.

Third, the significant negative effect of pre-deployment selection and training on mental health outcomes of depression and PTSD is stronger among troops with high levels of cross-cultural competence relative to those with low cross-cultural competence.

Fourth, personal resilience improves the mental health of people who encounter traumatic and stressful events by reducing the incidence or occurrence of depression and PTSD among soldiers deployed in international peacekeeping operations.

Finally, while the significant negative effect of pre-deployment selection and training on mental health problems of depression and depression is stronger among soldiers with high level of personal resilience, the negative effect of social support during deployment of depression and PTSD does not change at differing levels of individual resilience.

The implications of these findings are: first, it is imperative to prioritise psychological problems among troops in future peacekeeping innovative policy formulation and implementation. This may include policies on recruitment and attachment of professional psychologists to complement the spiritual work of the clergymen (Pastors and Imams) during actual deployment.

Second, policy interventions for future deployment should recognise and promote the potential facilitating role of resilience and cross-cultural competence in enhancing the negative effect of pre-deployment practices on depression and PTSD among military troops.

Furthermore, policies on recruitment/enlistment, training, welfare, administration should be formulated to promote mental wellbeing of military officers generally and particularly those deployed on international peacekeeping theatres.

Again, policies that encourage harassment, racism and discrimination during deployment should be promoted in all UN missions to prevent interactional-induced mental health challenges. This research contributes to the literature on military deployment practices and mental health research by demonstrating from the perspectives of the conservation of resources theory that pre-deployment practices, during deployment practices are means of gaining resources while preventing loss of resources in the face of traumatizing and stressful events, thereby cushioning them against mental health outcomes of depression and PTSD. In addition, the study contributes to the resilience theory by showing that resilience can directly and interactively (with pre-deployment practices) buffer against PTSD and depression in military personnel who are exposed to stressful and traumatizing conditions during deployment. Again, given that the extant cross-cultural competence literature is overly focused on mainstream expatriates in international business and international education context to the neglect of military expatriates, this study provides new empirical evidence to fill the gap in the literature on cross-cultural competence and mental health problems among military expatriates.

CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

Since the inception of the United Nations (UN) system in 1945, the world has recorded more than one hundred (100) major conflicts which have resulted in more than 20 million deaths (Smith, 2016; Rogers & Kennedy, 2014; Boutros-Ghali, 1992). These conflict situations have necessitated the deployment of peacekeeping troops across the globe. The end of the Cold War has brought a dramatic change to the international geo-political and strategic situation and interests, leading to increased roles of the UN in peacekeeping operations (Smith, 2016; Rogers & Kennedy, 2014). This in turn, has led to the deployment of military expatriates (i.e., armed forces personnel who are or have been involved in cross border and multinational missions) from various military institutions around the world, of which Ghana is no exception, for multinational peace-keeping operations.

Indeed, Ghana has consistently been ranked among the top ten countries that contribute personnel for UN operations over the last twenty-five years (Aubyn & Aning, 2015). As part of the global commitment to international peace, security and diplomacy, Ghana has contributed over 200,000 troops since the first deployments to peace-keeping mission in the Democratic Republic of Congo in the 1960s (UNDPKO, 2017). Peacekeeping refers to the deployment of national or multinational forces to warring countries or areas, with the affected parties' consent to prevent, control and address threats of or actual armed conflicts between the warring factions (Caplan, 2015).

Operating in a modern war zone or peacekeeping theater has unique complexities and features (Loscalzo et al., 2018; Molendijk et al., 2016; Groves, 2015) which makes it one of the most demanding and stressful working environments with negative implications for the mental health of deployed troops (Ippoliti et al., 2017; Keskinen & Simola, 2016; Navinés et al, 2016; Nadinloyi et al, 2013). Mental health refers to the ability of a person to cope with the stresses of life, function effectively including making meaningful contributions to their society (World Health Organization, 2014). Mental health problems include post-traumatic stress disorder (PTSD), depression, anxiety, among others. PTSD is a mental health disorder that is "characterized by re-experiencing distressing memories or images of a traumatic event, accompanied by prolonged negative changes in affective state or mood, markedly increased arousal and avoidance behaviors" (American Psychiatric Association, 2013).

Military service involves exposure to multiple sources of chronic, acute and potentially traumatic stress. Irrespective of the types of positions deployed in – intelligence, administration, logistics, training, service support - in combat and peace-keeping zones, military personnel still face a real chance of exposure that can eventually lead to deterioration in their mental health capabilities (Molgjord et al., 2016; Lukey & Tepe, 2008). The situation may be even most distressing if much of the daily routines result in hazardous and risky circumstances to individuals, as witnesses or victims, leading to grave danger or even death, bringing about a conflict between the mind and the body for which the individual is ill-prepared, mentally, physically, psychologically, and socially (Cathomas et al., 2019; La Torre et al., 2018).

Ample evidence suggests that peacekeepers who were exposed to human massacres and other atrocities during combat and peace-keeping operations have experienced higher rates of self-reported distress and PTSD symptoms (Harvey et al., 2017; Ghaffarzadegan et al., 2016; Keskinen & Simola, 2016; Smith, 2016; Terzungwe et al., 2016). Persistent situations of individual stress, PTSD symptoms and suicidal ideation, led to what Gjerstad et al., (2020) described as 'peacekeeper's stress syndrome' in the Norwegian peace-keeping operations, which is now more prevalent in multinational UN peacekeeping deployments (Obuobi-Donkor et al., 2022; Gilmour & Romaniuk, 2020; Forbes et al., 2016). Peacekeeper's stress syndrome describes the feeling of rage, delusion and frustration and helplessness among peacekeepers who have been exposed to violence and atrocities but could not respond (Pearn, 2000). Many peacekeepers tend to face various forms and degrees of mental health problems ranging from PTSD, depression, substance abuse, lifestyle, and cultural change syndrome to survivor's guilt syndrome' (Hernández-Varas et al., 2019; Diehle et al., 2017; Chamberlain et al., 2016; Whitworth & Ciccolo, 2016; Pearn, 2000).

As a result of the debilitating effects of peacekeeping stress on major UN peacekeeping troop contributing countries (TCC), there has been extensive academic research into mental health problems occurring amongst combat soldiers and veterans (Molendijk et al., 2016; Groves, 2015) as well as peacekeepers (Harvey et al., 2017; Ippoliti et al., 2017; Navinés et al., 2016; Nadinloyi et al., 2013). Since the psycho-social impact on the psyche of some incomprehensible savagery of such events can be traumatic (Molgjord et al., 2016; Stith et al., 2003), it requires contemporary and scientific approaches of preparing the individual, before embarkation and after deployment, with the view to reducing the negative impact of such

developments on the individual. Hence, there is a heightened scholarly interest in understanding how military deployment practices (e.g., Collins et al., 2017; Zang et al., 2017; Whitworth & Ciccolo, 2016) have been effective in buffering mental health problems such as PTSD and depression.

Military deployment practices are often defined or viewed as a cycle with different stages of activities ranging from pre-deployment interventions (e.g., training and preparation) to deployment (i.e., departure to mission area and actual execution of mission mandates), post-deployment (i.e., deployed troops returning home) and reintegration (i.e., adapting to regular military and family lifestyles and duties). These interventions are intended to improve the survival and operational effectiveness of military personnel prior to, during and after operations (USA DoD, 2015; Sheppard et al., 2010; Pincus et al., 2001). This is because pre-deployment practices such as training and preparation (Collins et al., 2017; Iversen et al., 2008) and social support of military units during deployment can help reduce PTSD and other mental health among deployed soldiers (Zang et al., 2017; Gibbons et al., 2012; Charuvastra & Cloitre, 2008). This means that military deployment practices, when properly executed, can improve mental health conditions among deployed troops.

Moreover, it is possible that the role of military deployment practices in reducing mental health problems may be greater in the presence of vital personal resources such as cross-cultural competence and resilience of the individual service personnel, especially, as the efficacy or protective effects of military deployment practices appears to have been called into question due to the increasing prevalence of mental health problems among troops.

The Victorian notions (the ancient notion, especially during the British Civil War, that military personnel have peculiar traits that make them "super-human") and nexus of hardiness, manliness, courage and invulnerability to stress, of the men and women in uniform have come under scrutiny, especially in an era of growing awareness of symptoms of workplace hazards (Yiğit, 2018; Pino & Giorgio, 2018; Schreinemacher, 2016; Zwaan & Gerber, 2016; Abou-Hodeib, 2011). This veil is now lifting, in dramatic fashion, amidst growing awareness of the existence of mental health conditions like alcoholism, drug abuse, violent behavior, PTSD and depression (Begiato, 2016; Carol & Potter, 2015; Tosh, 2002). This calls for the need to examine the role personal resources like resilience and cross-cultural competence play in mitigating mental health problems among military expatriates.

Resilience is defined as the ability or capacity to adapt to stressful or traumatic events and bounce back successfully (Hu et al., 2015; Prince-Embury, 2013; Connor & Davidson, 2003). Understanding the role of resilience in mental health outcomes and military deployment practices is important because, as a psychological construct, it can improve the mental health of people who encounter traumatic and stressful events (Hoge et al., 2007). Also, everyone may react to a traumatic incident or event differently (Loscalzo et al., 2018; Keskinen & Simola, 2016; Bober & Regehr, 2005), and differences in individual resilience can result in a wide range of responses. Some individuals are more vulnerable and weaker in handling traumatic events while others can easily adapt to maintain good health and performance (Hernández-Varas et al., 2019; García & Silgo, 2013).

Furthermore, cross-cultural competence may be critical in reducing mental health problems among troops directly and indirectly by complementing military deployment practices. Cross-cultural competence refers to the "knowledge, attitudes, and behavioral repertoire and skill sets that military members require to accomplish all given tasks and missions involving cultural diversity" (Hajjar, 2010, p.247). Individuals can only excel in different and diverse cultures if they possess adequate levels of cross-cultural competence (Alizadeh & Chavan, 2016; Heppner et al., 2012). As a result, it is a critical issue in the international business arena since it is seen as an important instrument for averting failure in international assignment by promoting cultural and psychological adjustments of expatriates for success (Bartel-Radic & Giannelloni, 2017; Spitzberg & Changnon, 2009). Likewise, the importance of cross-cultural competence in the success and wellbeing of troops involved in cross border and multinational missions has been attracting a lot of attention, as servicemen must effectively navigate cultures significantly different from their own in various military and peace-keeping operations (Trejo et al., 2015; Gallus et al., 2014; Abbe et al., 2008).

It is important to note that military expatriates are different from other expatriates (such as expatriate managers, international students). Military expatriates have no choice in relocation and acceptance of international mission or assignment. They can be deployed in any place in the world based on the operational needs of their units (Stockert, 2015; Crowley-Henry et al., 2014). Consequently, it has been argued that "all soldiers and leaders need some amount of cross-cultural competence, as the army may not be able to rely on a selection approach" (Abbe et al., 2008, p.34; Trejo et al., 2015). Deployed troops with adequate levels of cross-cultural competence are less likely to experience PTSD and other mental health problems when

exposed to traumatic events in foreign cultural environments by applying appropriate skills, knowledge, and behaviours as coping mechanisms.

The focus on military expatriates of Ghana Armed Forces is important because there has been significant upsurge in troop deployments and activities in different theatres, especially, over the past two decades. The long-term deployments of Ghanaian military expatriates over the last two decades, have led to the death of 137 Ghanaian troops out of a total of about 3,576 worldwide (UNDPKO, 2017). Thus, the country has the fourth highest number of fatalities after India (163), Nigeria (149) and Pakistan (142) (UNDPKO, 2017). The psychosocial impact of these deaths on families, colleagues and indeed the whole society is tremendous. In some cases, troops have witnessed indescribable bloody incidents, violence, and mayhem (Aboagye, 1999; Anyidoho, 1997) which have left scars on their psyche and sometimes affected the way they behave long after the event.

Clearly, the personnel of the Ghana Armed Forces, by the nature of their duties and responsibilities, tend to face enormous risks and challenges that have long-standing impact on the individuals' decent and healthy sustenance after retirement. Therefore, with increasing participation in external operations and higher rates of divergent traumatic events, the need for a critical examination of the influence of military deployment practices and personal resources of resilience and cross-cultural competence on the mental health outcomes of Ghanaian contingents in international military assignments cannot be overemphasized.

1.1 Problem Statement

1.1.1 Gaps in military deployment practices and mental health research

While studies have examined the influence of military deployment practices on mental health outcomes such as PTSD, depression etc., these studies focused mainly on factors such as deployment environment (e.g., combat exposure and related-traumatic events, for example, encountering the dead, wounded and explosive devices) (e.g., Dami et al., 2018; Afful, 2017; Osório et al., 2017; Iversen et al., 2008), nature of the deployment (e.g., repetitive and long-duration re-deployments) (MacGregor et al., 2012; De Burgh et al., 2011), and religious affiliation (e.g., Dami et al., 2018). Others also focused on social support and unit cohesion prior to deployment (e.g., Zang et al., 2017), social support from family and friends (Collins et al., 2017; Fisher et al., 2015; Ferrier-Auerbach et al., 2010) and deployment preparation (Collins et al., 2017), regular exercise (e.g., Whitworth & Ciccolo, 2016), and post-deployment experiences (e.g., military-civilian transition and reintegration experiences) (Afful, 2017; Necku, 2015) on PTSD among deployed soldiers.

However, the above studies, as shown, concentrated mainly on post-deployment or reintegration phases, deployment environment and nature of deployment rather than the buffering role of actual deployment interventions by military units during the deployment. Hence, less is known about how pre-deployment practices (specifically, selection, training and preparation) and formal deployment interventions (particularly, social support from military unit during the deployment) can affect mental health of military expatriates, and hence, requires more research.

This is necessary because longitudinal evidence indicates that the mental health and wellbeing of military officers at pre-deployment can significantly influence their subsequent mental health and well-being during deployment and reintegration (Wright et al., 2012). Likewise, in another longitudinal study, Sandweiss et al. (2011) showed that depression and anxiety among military personnel prior to deployment significantly increases PTSD symptoms during deployment. Thus, it is important to give equal prominence to pre-deployment and during deployment phases in relation to the mental health consequences for servicemen like the reintegration phase as it can bring about significant shift in military deployment practices and policies for greater mental health outcomes for the deployed soldiers.

Furthermore, and relatedly, there is little or no evidence on the complementary or interactive effect between pre-deployment practices (selection, and training and preparation) and deployment interventions (unit social support) on mental health of military expatriates. This is because the role of pre-deployment interventions in enhancing the mental fortitude of solders to become less vulnerable to PTSD can be significantly strengthened by effective deployment interventions such as presence of high social support for military unit during deployment. Similarly, some evidence suggests that pre-deployment activities such as informing personnel of their selection for international military operation increases PTSD among some soldiers prior to their actual deployment. For example, Bartone (1998), in a 2-week study found out that 81 US soldiers preparing for deployment in Yugoslavia, had increased levels of stress due to uncertainty of getting to know their peers as well as time pressure and conflicts with family responsibilities during the preparatory stages.

This means that such soldiers' mental health could deteriorate during actual deployment when exposed to traumatic events but could be buffered if they get high social support from their military unit in theatre. But the review of extant literature on the topic suggests that the potential interactive or complementary roles between pre-deployment and actual deployment interventions in ameliorating mental health outcomes like PTSD and depression are rare to find. Hence, this study seeks to add to the literature in this regard.

1.1.2 Gaps on direct and moderating roles of cross-cultural competence

The need to investigate the role of cross-cultural competence directly and indirectly in the relationship between deployment practices and health outcomes of military expatriate is grounded on the following reasons: first, extant literature on cross-cultural competence is overly focused on psychological distress and adjustments of expatriate managers (e.g., Wesołowska et al., 2018), international students (e.g., Wang et al., 2015), and peace corps volunteers (Abbe et al., 2008). While these studies have provided important lessons on the topic generally, the effect of cross-cultural competence on mental health outcomes of military expatriate population is yet to be given the needed empirical research attention. Military population significantly differs from the above populations that have received significant research attention. This is because of the issue of choice for non-military expatriates versus compulsion for military expatriates with respect to posting or deployment for foreign assignment/operation (Stockert, 2015; Crowley-Henry et al., 2014). As a result, the findings and conclusions of the studies conducted in international business and international education context may be limited in application in military populations. Besides, Abbe et al. (2008) argued that the relative importance of the various knowledge, skills, and motivation can be

significantly different between military and non-military populations such as expatriate managers or students.

Secondly, a systematic review by Alizadeh and Chavan (2016) concluded that there are limited empirical proofs demonstrating the usefulness of cross-cultural competence. Prior to this, Trejo et al. (2015) posited that although several theoretical models of cross-cultural competence have been proposed, empirical research are scanty particularly in the military expatriation context. They noted that developing cross-cultural competences of service personnel is very important because of the increasing integration of the world and cross-border and multinational activities of military institutions and their officers (Trejo et al., 2015). Consequently, it has been argued that even though cross-cultural competence has been a priority for major military institutions over the years, empirical studies on it within military population and context remains at the infancy stage (Crowley-Henry et al., 2014; Gallus et al., 2014; Selmer & Fenner, 2009).

Admittedly, some studies have been conducted among military personnel, but these were largely limited to antecedents of cross-cultural competence development in military personnel (e.g., Hajjar, 2010; Trejo et al., 2015). For example, findings of these limited studies showed that addressing cultural diversity problems (Hajjar, 2010), and improving emotional regulation and optimism (Trejo et al., 2015) can facilitate the development of cross-cultural competence in military personnel. Few others have focused on how cultural intelligence affects the adjustment of military expatriates (Stockert, 2015) and sexual harassment of female military expatriates in diverse-cultural settings (Fisher et al., 2015).

However, there is a paucity of the buffering roles of cross-cultural competence on mental health directly as well as its moderating influence in the relationship between mental health of military expatriates and deployment practices. Hence, this study provides further evidence from non- business expatriates' setting, specifically, military expatriate populations, who unlike business expatriate, are compelled to accept deployment in geographic relocation as required by the operational needs of their units.

1.1.3 Gaps on the moderating role of resilience

Some researchers have suggested that resilience can have a buffering effect on the experience of PTSD among military personnel who are exposed to early-life and combat trauma (Green et al., 2014; Galatzer-Levy et al., 2013; Pietrzak et al., 2011). However, these studies focused mainly on direct effect of resilience on PTSD among servicemen but those on how resilience moderate the influence of pre-deployment practices (selection, training, and preparation) and deployment practices (unit social support) on PTSD and depression in deployed soldiers is largely scanty and difficult to find. Although Afful (2017) has explored the moderating role of resilience in the link between post-deployment (reintegration experiences) and mental health of post-deployed soldiers, this study is different since it seeks to examine the buffering roles of resilience on the effect of pre-deployment and during deployment practices on mental health. Nonetheless, it extends Afful's (2017) work and further responds to Dekel and Monson's (2010) call for more research into the moderating role of resilience in reducing mental distress.

1.1.4 Contextual gaps

The various studies on mental health outcomes among military personnel and peacekeepers are mostly skewed towards the USA (see Hughes et al., 2018; Collins et al., 2017; Zang et al., 2017; Alizadeh & Chavan, 2016; Wang et al., 2015) and other western contexts such as UK (Osório et al., 2017), Spain (Hernández-Varas et al., 2019), among others. However, the African context generally and particularly the Ghanaian military setting has not been given the needed research attention. The few studies focusing on the topic in the Ghanaian military setting and personnel examined themes such as resilience and coping strategies of Liberian girl child soldiers living in Ghana in their reintegration into society (Okraku, 2017), military-civilian transition on the psychological well-being and social adjustment (Necku, 2015), and how combat and reintegration experiences affect mental health of post-deployed personnel of the Ghana Armed Forces (Afful, 2017).

There is little or no evidence of how pre-deployment (selection, training and preparation) and deployment interventions (military unit social support) affect PTSD and depression among Ghanaian military expatriates. Similarly, studies on the role of cross-cultural competence with respect to the mental health outcomes of the Ghanaian peacekeepers are rare to find. Meanwhile, prior evidence indicated that the prevalence of PTSD differs significantly across the globe due to differences in culture and presence of war and other adversities (Hernández-Varas et al., 2019; Keane et al., 2006). Likewise, resilience is also culture dependent (Ungar, 2008; Cicchetti & Lynch, 1993). This imposes a major limitation on the generalisation of the existing studies to non-Western cultures and contexts like Ghana and Ghana Armed Forces.

1.2 Research Objectives

The general objective of this study is to examine the role of military deployment practices, resilience and cross-cultural competence on mental health outcomes of the Ghanaian military expatriates. The specific objectives are:

1. To examine whether military deployment practices (selection, training and preparation, and unit social support) will have a significant influence on mental health outcomes of Ghanaian military expatriates.
2. To investigate whether cross-cultural competence will have a significant effect on mental health outcomes of Ghanaian military expatriates.
3. To determine whether cross-cultural competence will moderate the relationship between military deployment practices and mental health outcomes of Ghanaian military expatriates.
4. To determine the relationship between resilience and mental health outcomes of Ghanaian military expatriates.
5. To assess the moderating role of resilience in the relationship between military deployment practices and mental health outcomes of Ghanaian military expatriates.

1.3 Research Questions

The following research questions guide this study:

1. How do military deployment practices (selection, training and preparation - and unit social support) relate with the different mental health outcomes of Ghanaian military expatriates?
2. What are the relationships between cross cultural competence and mental health outcomes amongst Ghanaian military expatriates?

3. To what extent does cross cultural competence moderate the relationship between military deployment practices and mental health outcomes at the individual and composite levels among Ghanaian military expatriates?
4. What are the relationships between resilience and mental health outcomes amongst Ghanaian military expatriates?
5. To what extent does resilience moderate the relationship between military deployment practices and mental health outcomes amongst Ghanaian military expatriates?

1.4 Significance of the Research

The study is pre-viewed in three ways: research, practice, and policy. For research purposes, the study is significant in the sense that it adds very useful empirical evidence from a generally less-examined population and context to the existing body of knowledge. This is because the literature regarding deployment practices, resilience, cross-cultural competence and mental health of military expatriates generally and specifically in Ghana is very limited. Hence, findings of this research would add valuable contributions to existing literature and empirical knowledge.

Given the increasing international operational tempo in peacekeeping operations, with considerable national, sub-regional and international ramifications, the findings that peacekeeping missions are associated with substantial risk for subsequent mental health, psychiatric morbidity and distress is concerning and makes it imperative to assertively address this issue in current and future peacekeeping through innovative policy formulation and implementation. The needs of peacekeepers should be recognized within initiatives aimed at improving the mental health of military personnel. Initiatives focusing on prevention, early

recognition and evidence-based deployment practices are high priorities for peacekeeper cohorts. Hence, policy makers have a lot to learn from this study as it seeks to acknowledge and appreciate the behaviour of peacekeepers before, during and after deployment in various theatres. These are largely addressed in this study, and the outcome of great policy implications.

In addition, several policies on recruitment/enlistment, training, welfare, administration, health and hygiene and training exist in military institutions which guide decision making. The essence of these well-crafted policies is to ensure that individuals are able to give off their very best. Such individual capacities inure to the utmost benefit of the institution. Unfortunately, most of these policies are neither adhered to nor implemented judiciously due to several reasons. A formidable force that is able to achieve its strategic and operational goals, particularly in a peacekeeping theatre, is the one whose leadership ensures the application of the contemporary research and practical implementation of policy findings. Hence, it is expected that findings on the potential protective role of resilience and cross-cultural competence would inform future military recruitment and deployment interventions so as to reduce the prevalence of mental health problems among deployed and post-deployed military expatriates.

A final implication of the current study is that of service planning for the future. Given the duration of illness, it is unreasonable to expect substantial drops in disorder prevalence over the coming years. Thus, it is reasonable to assume that a significant number of peacekeeper veterans are likely to continue to have a need for mental healthcare and support over the long

term. As this group continues to age, they will present challenges for care and management, no matter how resilient or hardy there may have been from the onset of their military career; budgetary and service development projections should bear this in mind.

1.5 Scope of the Study

Issues about mental health have been in the forefront of academic, professional, social, human, and behavioural studies for quite some time. With rapid expansion in the size and intensity of military operations, not excluding peacekeeping and humanitarian operations, concerns for the health and longevity of personnel have become very paramount; consequently, developing PTSD, one of the consequences of poor mental health, because of exposure to varying degrees of traumatic situations and circumstances, has become of contemporary concern and challenge. Hence, this research sought to examine how military recruitment practices can directly ameliorate the ramifications of mental health due to exposure to the hazards of military operations and indirectly via the moderating roles of cross-cultural competence and resilience.

Accordingly, its scope relates to military deployment practices, specifically, pre-deployment interventions (selection, training, and preparation) and deployment (unit social support), mental health outcomes (specifically, PTSD and depression), cross-cultural competence and resilience. It further focuses on military expatriates (i.e., military personnel deployed in international military operations) of the Ghana Armed Forces.

1.6 Organisation of the Study

The study is divided into seven chapters. Chapter One is the introduction. It presents background of the study (providing some guidance on the state and/or awareness on the subject as it relates to Ghanaian peacekeepers), problem statement, research objectives, research questions, and significance of the study, scope, and organisation of the study.

Chapter Two is the literature review. It presents theoretical and empirical literature. The theoretical literature section reviews the Conservation of resource (COR), Job demands - resources, and Resilience theories. It further discusses the concept of military deployment practices, overview of peace-keeping operations, mental health, state of mental health among military expatriates, and concepts of cross-cultural competence as well as the concept of resilience. The empirical literature section presents prior studies on the relationship between deployment practices and mental health outcomes, the influence of cross-cultural competence on mental health outcomes, and the link between resilience and mental health outcomes. It ends with a proposed conceptual framework, and chapter summary

Chapter Three presents the research method. It covers the research paradigm, design, population and sampling, data collection method and instruments, data analysis and ethical considerations. Chapter Four presents the empirical results on the quantitative relationships between military deployment practices, cross-culture competence, resilience, and mental health outcomes among military expatriates of the Ghana Armed Forces and discusses the findings. Chapter Five presents qualitative findings.

Chapter Six presents the study discussions. It discusses both the quantitative results and qualitative findings. It covers the relationship between military deployment practices, cross-cultural competence, resilience, and mental health outcomes among military expatriates of the Ghana Armed Forces.

Chapter Seven presents the summary and conclusions. It begins by providing a brief overview of the motivation for the study, the research methods that were adopted to achieve the research objectives and questions, and then, thematically presented the summarised findings. Furthermore, the study draws conclusions from the findings, discusses the practical and theoretical implications of the findings and ends with research limitations and recommendations for future research.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents the theoretical and empirical literature on military deployment, cross-cultural competence, resilience, and mental health outcomes. Specifically, the theoretical literature section reviews the Conservation of Resources theory, the job demand-resource theory and the resilience theory. It further discusses the concept of military deployment practices, meaning of cross-cultural competence, and peacekeepers as military expatriates, mental health, and the state of mental health among military personnel. Also, the empirical literature section presents prior studies on the relationship between military deployment practices and mental health outcomes, the influence of cross-cultural competence on mental health outcomes, and the link between resilience and mental health outcomes. It ends with a proposed conceptual framework, and chapter summary.

2.1 Theoretical Literature Review

This study is underpinned by three key theories, which are the conservation of resources theory, job demand-resources theory and the resilience theory. The following discusses these theories and their relevance to the study as follows:

2.1.1 Conservation of Resources Theory (Hobfoll, 1989)

The Conservation of Resources (COR) Theory by Hobfoll (1989) is used as one of the key theoretical frameworks for this study. The theory is concerned with how valuable personal resources and changes in personal resources can lead to or help to cope with stressful and

traumatic events (Hobfoll & Ford, 2010; Hobfoll, 1989, 2002). Resources are things that people perceive to be helpful in achieving a particular target or goal (Halbesleben et al., 2014). The COR theory suggests that personal resources are varied and may include buildings, employment, knowledge and skills, energy resources, social support, time, and other psychological and economic capital (Hobfoll & Ford, 2010; Hobfoll, 1989, 2002). They are crucial to the survival and wellbeing of an individual (Nsereko, 2020).

According to the theory, the occurrence of stress from traumatic events is due to three key conditions: the actual loss of personal resources, threat of loss of personal resources, and no gain of personal resources. The level of stress increases among people whose pool of resources is depleted. Individuals with greater personal resources are less likely to be susceptible to stress resulting from their exposure to traumatic events compared to those who have little or no resources as they may not have sufficient coping mechanisms (Hobfoll & Ford, 2010; Hobfoll, 1989, 2002).

The COR theory further predicts that the level of stress among people with an encounter with traumatic events and stressful situations may be exacerbated if it is accompanied by loss of resources (Hobfoll & Ford, 2010; Hobfoll et al., 2006). Hence, the role of resource loss in relation to levels of stress and their effects on people should be given more attention compared to effect of gaining resources (de Groot et al., 2003).

Relating to the present study, military personnel on peace-keeping mission may consider the support provided by their unit during the deployment as an important resource for boosting their mental health outcomes since it can expand their range in coping with stressful and

traumatic events. This is because it has been suggested that social resources of individuals like social support tend to increase their ability to cope with stressful situations and traumatic events (Hobfoll et al., 2006). This means that people can utilise their social networks as a psycho-social resource to improve their mental health outcomes in face of difficult and traumatic situations (Hall et al., 2014).

Likewise, when pre-deployment practices, particularly, selection, training and preparation are done well, it can equip military personnel deployed in peacekeeping assignments and other military operations with vital skills and knowledge (like cross-cultural competence), energy and mental fortitude to withstand traumatic and stressful events that can undermine their mental health outcomes.

2.1.2 Job Demand–Resource Model (Demerouti, Nachreiner, Bakker & Schaufeli, 2001)

The job demand–resource (JD-R) model was propounded in early 2000s by Demerouti et al., (2001) to ascertain potential antecedents or drivers of burnout which is a key negative indicator or aspect of health and wellbeing. Later, Schaufeli and Bakker (2004) expanded on the initial model by including work engagement as a positive aspect of well-being. This approach which was motivated by ideas of positive psychology has provided opportunities for researchers to explore both the health impairment and motivational mechanisms of employees' health and wellbeing (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004). Principally, the JD-R model proposes that work environment or working conditions or job characteristics can broadly be grouped into job demands or job resources, and both conditions affect the health and wellbeing of people at work (Salmela-Aro & Upadyaya, 2018; Bakker & Demerouti, 2007; Demerouti et al., 2001).

Job demands refer to "aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort and are therefore associated with certain physiological and/or psychological costs" (Bakker et al., 2004, p. 86). It was similarly described by Demerouti et al. (2001) as "physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs" (p. 501). Examples of job demands include workload, work pressure, resources and logistics constraints, unfavourable working hours (Bakker et al., 2003), role ambiguity (Bakker, 2015), workplace conflicts and other interpersonal stressors like harassment (Ilies et al., 2011; Bakker & Demerouti, 2007), just to mention but a few. Job demands tend to cause health problems like burnout, depression, among others. High and prolonged levels of job demand negatively affect people's health and wellbeing by drawing on resources that are beyond the capability of people (Grover et al., 2018; Bakker & Demerouti, 2007; Bakker et al., 2003).

On the other hand, job resources refer to "physical, psychological, social, or organizational aspects of the job that may […] be functional in achieving work goals, reduce job demands and its related costs, or stimulate personal growth and development" (Demerouti et al., 2001, p. 501). Job resources can either be in the form of organisational-related resources like organizational/supervisor social support, developmental and growth opportunities (Bakker et al., 2020; Lesener et al., 2019) or personal resources like resilience (Spini et al., 2017). Individuals with insufficient personal or organisational resources are at high risks of suffering from health problems of job demands as job demands diminish people's capabilities to cope properly with them as well as to recover from health problems induced by job demands associated with their work (Bakker et al., 2020; Spini et al., 2017; Bakker & Demerouti,

2007;). Thus, availability of high job resources is crucial in improving health outcomes of employees in the face of high job demands at (Bakker et al., 2020; Spini et al., 2017; Bakker & Demerouti, 2007;) as they serve as buffers against general ill- or well-being caused by job demands (Kwon & Kim, 2020; Salmela-Aro & Upadyaya, 2018).

The JD –R model which is considered as a leading theoretical framework for understanding and predicting poor health and well-being outcomes (Lesener et al., 2019; Bakker & Demerouti, 2007), is relevant to this study which focuses on the effect of military deployment and mental health outcomes and the moderating roles of resilience and cross-cultural competence. This is because the model features a dual process, that is, an energy sapping process versus a positive motivational process (Kwon & Kim, 2020; Bakker & Demerouti, 2007) of poor health outcomes.

While it has been suggested that pre-deployment practices may lead to mental health symptoms and adjustment concerns among soldiers in preparation for international peacekeeping missions (Bowling & Sherman, 2008; Kelley, 1994), overall, it has greater tendency to increase their capacity to deal with mental health challenges of depression and PTSD during the mission (Collins et al., 2017; Iversen et al., 2008). Pre-deployment selection and training can be useful sources of job resources for military expatriates as it can increase their readiness and preparedness with respect to health and fitness, and general readiness (Afful, 2017; Mackenzie & Miller, 2017; Laser & Stephens, 2011; Military One Source, 2012; Rotter & Boveja, 1999).

Similarly, from the perspective of the JD-R model, it has been found that the level of burnout and depression is lower among employees who are resilience but higher among individuals who are not personally resilience (Spini et al., 2017). Likewise, as indicated earlier, unit support during deployment is a crucial resource for improving mental health of troops in international peacekeeping arena as it cushions them against stressful situations and traumatic events (Vogt et al., 2012). Relatedly, because cross-cultural competence emphasises the ability to effectively interact with people from diverse regions of the world (Hajjar, 2010), it may be critical in buffering against mental health problems among troops directly and indirectly by complementing the role of military deployment practices (Stockert, 2015; Crowley-Henry et al., 2014).

2.1.3 Resilience Theory (Garmezy, 1970)

The theory of resilience is another theory that is used to examine the research topic. Dr Norman Garmezy, a clinical psychologist, while investigating the risk of psychopathology in children in 1970, is known as the founder of research in resilience. According to Garmezy resilience theory, someone with great resilience is not necessarily someone who is extremely brave despite adversity; it is someone who is able to show functional adequacy, despite emotional turmoil. Garmezy defines resilience as "not necessarily impervious to stress. Rather, resilience is designed to reflect the capacity for recovery and maintained adaptive behavior that may follow initial retreat or incapacity upon initiating a stressful event" (Southwick et al., 2014; Ledesma, 2014). Resilience Theory refers to the ability to adapt successfully and bounce back from adversity, failure, conflict, frustration, and misfortune The concept of resilience has been defined variously because it is a term that many consider to be

difficult to define (Breda, 2018; Hu et al., 2015; Prince-Embury, 2013; Bonanno et al., 2011; Agaibi & Wilson, 2005). Some researchers consider it as innate trait-based, i.e., located in the person (Abi-Hashem, 2020), while others view it as process-oriented (Hu et al., 2015; Prince-Embury, 2013). However, in general, it is considered as a multidimensional construct (Southwick et al., 2014; Lamond et al., 2008; Ungar, 2008; Csikszentmihalyi & Seligman, 2000). According to Wald et al. (2006), an individual's level of resilience is characterised by strength, disruption and growth, adaption, and cooing mechanisms, as well as positive outcomes after being exposed to adverse situations.

Similarly, Connor and Davidson (2003) defined resilience as a personal quality that increases the capacity of individuals to thrive in the face of adversities or threats. Likewise, Masten (2007) described resilience as being able to achieve "good outcomes in spite of serious threats to adaptation or development" (p. 228). Also, from the trait-based perspective, Agaibi and Wilson (2005) defined the concept as behaviours, ways of thinking, and emotional reactions that enhance the capacity of people to positively adapt to difficult situations. It is a result of how individuals constantly and repeatedly interact with conditions within their environments (Ungar, 2008). In the views of Luthar et al. (2000), resilience is a dynamic process that comprise of individuals' ability to adapt in environments that are characterised by greater adversities. It is "the sum total of dynamic psychological processes that permit individuals to maintain or return to previous levels of well-being and functioning in response to adversity" (The Technical Cooperation Program, 2012, p. 4). Threats and adversities are significant stressors which may include bombs and explosives, victims of persecution, deaths, prolonged or severe trauma, among others (Infurna & Luthar, 2017; Rolf & Glantz, 2002; Rutter, 2006).

Useful protective mechanisms that increase adaption in environments with significant adversities include one's skills and knowledge, self-efficacy, temperament, and social skillfulness, being positive and having optimistic view of things, and a sense of meaning in life (Flynn et al., 2004; Luthar et al., 2000). This is consistent with other views that people who are resilient tend to have high level of internal locus of control, positive-minded and optimistic (e.g., Bartone et al., 2012; Pietrzak et al., 2011; Werner & Smith, 1992). Asides, positive psychological changes resulting from traumatic and adverse situation tend to make people developed better appreciation of life experiences, experience growth in personal strength, develop new priorities, and pursue new priorities that make them able to adapt to future adverse conditions (Calhoun et al., 2000; Tedeschi et al., 1998). These resilient and hardy characteristics can increase the physical and mental health (Connor & Davidson, 2003).

Thus, understanding the role of resilience in mental health outcomes and military deployment practices is important because, as a psychological construct, it can have a buffering effect on the mental health of people who encounter traumatic and stressful events (Hoge et al., 2007). Also, everyone may react to a traumatic incident or event differently (Loscalzo et. al., 2018; Keskinen & Simola, 2016; Bober & Regehr, 2005), and differences in individual resilience can result in a wide range of responses. While some individuals are more vulnerable and weaker in handling traumatic events, others can easily adapt to maintain good health and performance (Hernández-Varas et al., 2019; García & Silgo, 2013).

From the above, it can be argued that soldiers who are resilient are less likely to develop mental health problems such as PTSD and depression when exposed to traumatic events. Besides, it contributes significantly towards reducing mental health symptoms, their severity,

and chronicity among those who end up developing PTSD (Beckham et. al., 2016; Mazzeo et. al., 2002; Moore & Reynolds, 2000). Accordingly, resilience of military expatriates may directly reduce mental health as well as indirectly enhance the influence of military deployment practices on the mental health of military personnel during peacekeeping or deployment.

2.2 Conceptual Literature Review

This section discusses the concept of military deployment practices, cross-cultural competence, peacekeepers as military expatriates, mental health, and state of mental health among military expatriates.

2.2.1 Military Deployment Practices

The concept of military deployment practices generally describes a range of activities comprising of notification about a pending deployment operation, planned training and other preparedness activities, actual peacekeeping, and or combat operations, military personnel's homecoming, management of post-deployment transitions (USA DoD, 2015; Military One Source, 2012; Sheppard et al., 2010). Thus, the conceptualisation of military deployment may be influenced by various factors such as its purpose (for instance, training, peacekeeping, combating activities), degree of danger and risk that the officers are likely to face, the amount of warning or advance notice about an upcoming deployment (Sheppard et al., 2010), among others.

Besides, it is important to recognise that military deployment practices are often defined or viewed as a cycle with different stages of activities intended to improve the survival and

operational effectiveness of military personnel prior to, during, and after operations (USA DoD, 2015; Sheppard et al., 2010; Pincus et al., 2001). Although there is an agreement that military deployment practices involve different stages, there is a lack of consensus on the number of stages involved. While Pincus et al. (2001) argued that military deployment practices are carried out in five stages involving pre-deployment, deployment, sustainment, re-deployment and post-deployment, the USA DoD (2015) suggested that there are four phases of military deployment including pre-deployment, deployment, post-deployment, and reintegration stages.

The pre-deployment stage involves activities such as selecting and notifying personnel, training, and preparing them for an impending deployment (Collins et al., 2017; USA DoD, 2015; Iversen et al., 2008; Pincus et al., 2001). While most of the activities at the stage of pre-deployment phase are required, others are encouraged by the military unit prior to the deployment (Department of the Army, 2010; Pincus et al., 2001). These activities may be carried out either onsite or online with the aid of pre-deployment guidelines (Military One Source, 2012). Other pre-deployment activities are legal preparation (e.g., making a will), operational or functional-related activities such as providing advance notice, and training. It further relates to preparations regarding channels and tools of communication, and family separation. These activities or processes are intended to ensure that there is unique and smooth transition for service personnel (Collins et al., 2017). Nonetheless, the activities involved in this stage are emotive in nature (such as uncertainties about current physical and mental health conditions) with some psychological implications (unpreparedness to embark on an external operation due to social, cultural challenges from close and extended family; contemporary

developments in the mission area – stress and fear of the unknown due to news about fatalities in the theatre of operations) for the individual, thus requiring agility on the part of the individual as well as support on the part of the military high command, to avert or ameliorate the experience of any mental health issues.

The next stage is the deployment stage. This stage involves the actual movement of troops to the operational area and carrying out the actual mandates of the mission (for instance, peacekeeping or combat). This phase begins from the day or date the troops departed to the mission area to the end of the first month of absence. It may include processes for the initial adjustments by altering military routines to help the officers adjust to family duties (Pincus et al., 2001). The organisation therefore needs to put in place mechanisms, systems and processes that will, firstly, alleviate potential or real negative psychological impact (death or injury), and, secondly, sustain positive emotions (excitement and a feel of financial fortunes) of the selection, preparation, and eventual deployment of the individual soldier.

The deployment stage is followed by the sustainment stage. The sustainment phase of military deployment practices starts from the end of the first month to the commencement of the final month of deployment. It is the month that precedes the military personnel's homecoming. It involves the establishment of new routines, increased engagement in family-related activities which are aimed at adequately preparing the personnel for their returns or homecoming (Pincus et al., 2001). Operational effectiveness and efficiency of the individual peacekeeper is a matter of utmost concern because they can affect certain routines, standard operating procedures, exigencies or nuances, such as interpersonal relations amongst the rank and file,

irregular payments of allowances, boredom, among others in the theatre may affect the psychological well-being of the individuals. A pragmatic and result-oriented approach, both at the individual, unit and organisational level, through good dissemination of information, is required to reduce, if not eliminate, such challenges.

The post-deployment phase commences the moment the deployed troops return home, and is expected to last up to six months, during which the returnees are expected to renegotiate and adapt to new roles different from what they perform during the deployment (Pincus et al., 2001). Finally, the reintegration is concerned with how returnees adapt to regular military duties, family life, and general societal behaviours (Zang et al., 2017; USA DoD, 2015; Gibbons et al., 2012; Charuvastra & Cloitre, 2008; Pincus et al., 2001).

The conceptualisation of military deployment practices as a process is important as it helps to assess multiple factors and activities that can affect the health and wellbeing of service personnel before, during and after deployment (Sheppard et al., 2010; Pincus et al., 2001). This is because various pre-deployment, deployment and post-deployment practices can affect the mental health outcomes of deployed soldiers. Besides, the relationship between how a person feels and functions at pre-deployment is an antecedent of whether the person will be disposed to any debilitating mental health situation during the actual deployment operations.

It is important to note that, this study focused on the pre-deployment (specifically, selection, training, and preparation) and during deployment (particularly, military unit social support during deployment) activities only. This is because prior studies have largely neglected these

activities relative to post-deployment or reintegration phases, deployment environment and nature of deployment in relation to mental health issues. The following elements - variables, human relations practices, and an overview of the existing deployment practices in the GAF - provides further perspectives on the specific deployment practices of interest to the researcher as outlined above.

Selection, training and preparation

This practice involves alerting a military unit and its personnel to prepare for an impending mission assignment. The members of the unit are selected through advance notification. They undergo the necessary training, medical and dental assessments, and other fitness tests. Also, they may be required to attend counseling sessions and receive necessary briefings. These interventions are intended to increase the readiness and preparedness of the individual service personnel in terms of their health and fitness, as well as the overall readiness of the military unit (Mackenzie & Miller, 2017; Afful, 2017; Military One Source, 2012; Laser & Stephens, 2011; Rotter & Boveja, 1999).

Besides, these activities are also targeted at disrupting patterns of civilian life that promotes the gratification of the individual, and then replace them with strong military values such as confidence, loyalty, unconditional acceptance of authority, as well as compliance with official conduct. This is because such values enhance the success of service personnel during mission or assignments (Demers, 2011; Collins, 1998).

All the service personnel that are deemed healthy and physically fit after the above selection and training interventions, are camped for a duration not less than one month prior to the date of their departure to the mission area (Afful, 2017). Whiles in camp, they are educated and given adequate information on the specific activities they are expected to carry out at the operational area, and the intensity of the physical training is increased to make them more physically prepared and resilient (Dunt, 2009; Bowling & Sherman, 2008).

Also, family issues are given considerable attention during this period of selection, training and preparedness (i.e., pre-deployment activities). The selected personnel and their families prepare and consider important matters relating to legal and financial issues, living arrangements and relocation, and arrangement for channels of communication during actual assignment of the mission (Military One Source, 2012; Laser & Stephens, 2011; Rotter & Boveja, 1999). Military institutions in the United States of America, Netherlands, Australia, and Canada often prioritise issues of mental health during the period of pre-deployment preparations, with lectures on stress management given to the selected service personnel during this stage (Dunt, 2009; Bowling & Sherman, 2008).

These periods may be associated with high stress levels due to the exposure to various forms of mental health symptoms and adjustment concerns (Bowling & Sherman, 2008; Kelley, 1994). On one hand, it has been suggested that pre-deployment practices such as training and preparation can help in reducing PTSD (Collins et al., 2017; Iversen et al., 2008) but less research attention is devoted to this phase and the stated activities. Unfortunately, in most developing countries, this training preparation is not complemented with any form of

remarkable or substantial mental health preparation and assessments compared to the army of advanced economies.

Military unit social support during the deployment

The concept of military unit social support refers to the degree to which an individual military personnel engaging in actual deployment duties in the mission area "perceive assistance and encouragement in the war zone from fellow unit members (i.e., felt a sense of closeness and camaraderie with peers in the unit) and unit leaders (i.e., felt appreciated by superiors" as well as the belief that their leaders really care about their welfare and wellbeing (Vogt et al., 2012, p.4). It is thus, a key military practice that occurs during the actual deployment phase. It may come in various forms, specifically, informational, emotional, esteem, network, and instrumental social support (Davis et al., 2015; Rossetto, 2015; Wilson et al., 2015).

This means that the social support provided to the servicemen by their unit during the deployment may include informational support. Informational social support of military units during deployment is concerned with the provision of vital facts and advice for the personnel to effectively deal with a particular situation such as treatment options for personnel with symptoms of PTSD and other mental health problems (Wilson et al., 2015). Also, emotional support are various forms of verbal and nonverbal expressions that are intended to uplift the emotional needs of the service personnel such as unit leaders or superiors expressing sincere appreciation to service personnel for sacrifices, they made during deployment (Rossetto, 2015).

Similarly, network support is concerned with facilitating a sense of feeling of belonging. For example, it may involve providing opportunities for a spouse of a military personnel to spend some time with them (particularly, those considered as loyal confidants) during the deployment (Wiens & Boss, 2006). Relatedly, esteem support is intended to bolster the self-confidence of people by voicing respect for an aspect of their identity (Davis et al., 2015). For instance, it may take the form of provision of reassurance to service personnel that they are good at what they do even if they make some mistakes. For those in the last stage of their mission assignment or about to return, an assurance that they are good parents even if their children are slow to warm up upon reunion (Davis et al., 2015).

Finally, instrumental support refers to the provision of tangible resources, and materials to people (e.g., Karakurt et al., 2013). For instance, it includes providing the necessary personal protective equipment and relevant resources that can boost the confidence and welfare of the service personnel during the deployment. The various forms of social support of military units during deployment are expected to contribute significantly towards alleviating mental health problems like PTSD and depression among service personnel during the deployment.

2.2.2 Overview of the Deployment Practices in the Ghana Armed Forces

As noted, Ghana has consistently contributed personnel for UN operations over the last twenty-five years (Aubyn & Aning, 2015; Atintande, 2012). The government of the day plays a critical role in whether Ghana should participate in peacekeeping missions. GAF's *pre-deployment* activities begin after the government takes the decision that Ghana should commit

troops, following a request from the UN Headquarters. This is then communicated to the peacekeeping department of the GAF, through the Ministry of Defence (MOD), to designate a unit of the Ghana Army, which will in turn allocate vacancies to other Services (Navy and Air Force) as well as Formations and Commands, for pre-operational training prior to deployment (Atintande, 2012).

When the "warning order" is received for UN for deployment, the designated commanding officer and his operations officer, military information officer and logistics officer are required to visit the specific mission area for a reconnaissance. The aim of this is to assist them to familarise with themselves with the terrain and factors that can influence the success or failure of the assignment. Information gathered is then incorporated into their pre-deployment training and preparations (Atintande, 2012). The names of the nominated troops are published or communicated via designated military news channel. Troops that have been nominated for the operation are required to undertake medical examinations and basic fitness tests to be ensure they are healthy and fit to be deployed (Afutu, 2017).

They also undergo pre-operational training. All UN missions have "different peculiarities. So, in addition to training in minor tactics and basic peacekeeping skills, the encamped troops are provided information on the peculiar nature of the mission area, such as history, geopolitics, geography and background to the conflict situation" (Atintande, 2012, p.68). In the past, the duration for the pre-operational training ranged from three or more months but now shortened to about four weeks. The trainings are organised in two main training camps including the Bundase Training Camp for troops in the Southern Command, and the Daboya Training Camp

for those in the Northern Command (Atintande, 2012). However, unlike their counterparts in USA, Netherlands, Australia and Canada, and other advanced armed forces, the pre-deployment preparations of the Ghana Armed Forces do not include mental health trainings, although occasional an hour lectures on stress management are provided to them (Afutu, 2017).

With respect to the *actual deployment stage*, as noted earlier, this stage is where the troops actually leave for the operational area and carrying out the actual mandates of the mission (Pincus et al., 2001). In the Ghana Armed Forces, after the selected troops have gone through the above outlined pre-deployment training and predations, they move to specific mission area for the performance of their assigned duties (Afutu, 2017). It should be recognised that the selected soldiers are given a few days to engage in personal preparation to the deployment upon their return from the pre-deployment training at either the Bundase Training Camp for the Southern sector troops, or the Daboya Training Camp for the Northern sector troops.

The next stage is the deployment (in-theater operations). Members of the Ghana Armed Forces are normally deployed for a duration of six months. Pursuant to the UN General Assembly plenary meeting on 10 May 2013, the Assembly adopted a resolution that changed the rotation period for contingents to a new standard of at least 12 months with effect from 1 April 2013, ostensibly, "to provide greater continuity on the ground and conserve scarce resources" (UNDPKO, 2013). Ghana started implementing the resolution in 2015. Missions with longer durations tend to affect the troops morale, health, and their upkeep (Atintande, 2012). Once the contingents arrive at the operational areas from Ghana, the UN mission headquarters will

assume full operational responsibility and control over them. UN determines what they must do, where and when they must operate. However, administrative responsibilities are shared between the UN and the troop contributing nation, in this case, Ghana; but Ghana does not have operational responsibilities in relation to its deployed troops during the actual deployment operations (Atintande, 2012). The UN "provides fuel and lubricants, water, and food for the troops. The troop contributing country takes care of matters relating to discipline and welfare [....]. These administrative matters are handled by the commanding officer and the contingent commander" (Atintande, 2012, p.81). Although Ghana Armed Forces has employed some mental health practitioners, their participation in deployment-related issues is insignificant or minimal or non-existent (Afutu, 2017). However, it is believed that unit support tends to help members to deal with mental health problems during the in-theater operations.

In terms of the sustainment stage, although Ghana has employed the wet lease arrangement with the UN, it finds it difficult to provide major equipment and sustainment of the peacekeeping contingents (Atintande, 2012). This is usually attributed to improved arrangement for mission sustainment for the peacekeeping troops including issues with coordination, communication and procurement problems, poorly defined roles by key stakeholders responsible for the Ghana Armed Forces' peacekeeping operations (Atintande, 2012).

To end with the post-deployment and re-integration stage(s), Ghana Armed Forces does not put in place measures in handling post-deployment and re-integration of the post-deployed soldiers, so they reintegrate by themselves. The self-reintegration by the post-deployed

soldiers is usually characterised by immediate post deployment celebrations which ushers them to reintegrate with their personal life, family, and work activities (Afutu, 2017). A recent study by Agah (2019) found that post-deployed Ghanaian troops often experience poorer psychological well-being and family relationship relative to their colleagues who are not deployed. Thus, although this stage may involve mental health problems, Ghana Armed Forces has no systems in place for monitoring whether troops returning from operational areas reintegrate smoothly or not. So those with mental health issues may not be identified (Afutu, 2017). Hence, it is necessary that relevant units of the Ghana Armed Forces establish debriefing and counselling interventions to avert potential mental health challenges among post-deployed soldiers (Atintande, 2012).

2.2.3 Cross-cultural Competence

Due to remarkable developments in globalization and technological advances in organisations, institutions and the workplace, the growing number of diverse cultures and viewpoints can pose challenges to collaboration and teamwork. This situation may develop in quagmires if not handled effectively and efficiently. The more employers and employees understand and empathise with one another, the most productive it can be. The extant literature has catalogued the importance of cross-culture competences in international business (Abugre & Debrah, 2019; Anku-Tsede & Dedzo, 2017; Johnson et al., 2006), management (D'Annunzio-Green, 2002; Senyshyn, 2002), education (Mikhaylov, 2014), healthcare (Kaihlanen et al., 2019; Castillo & Guo, 2011; Betancourt et al., 2005; Betancourt et al., 2003; Campinha-Bacote, 1999;), at the workplace (Shepherd et al., 2019), and in the military (Selmeski, 2007). The preponderance of empirical evidence on the significance of

cross-cultural competence in these fields is enough guides for further contemporary actions and research.

Nonetheless, there is a lack of consensus on what cross-cultural competence and what its components are (Alizadeh & Chavan, 2016; Wang et al., 2015; Livian, 2011; Johnson et al., 2006). This is because it has been used with varied constructs like "intercultural competence" (Rasmussen & Sieck, 2015; Lonner & Hayes, 2004), "cultural capabilities" and "culture-general competencies" (Rasmussen & Sieck, 2015), "intercultural sensitivity" (Hammer et al., 2003), "multicultural competency" (Dunn et al., 2006), and "cultural intelligence" (Earley & Ang, 2003), "intercultural proficiency" (Clarke et al., 2009), and "cross-national competence" (Heppner et al., 2012). These concepts share similar theoretical perspectives. In line with previous studies (e.g., Bartel-Radic & Giannelloni, 2017), the study used the term "cross-cultural competence" here but includes literature on intercultural competence, cross-cultural intelligence, and in the sense of the wording of similar other terms (Bartel-Radic & Giannelloni, 2017).

Specifically, cross-cultural competence describes the ability of people to be successful in a cross-cultural environment (Ang & Van Dyne, 2008). It refers to the "knowledge, attitudes, and behavioral repertoire and skill sets that military member requires to accomplish all given tasks and missions involving cultural diversity" (Hajjar, 2010, p.247). Similarly, it has been defined as the "knowledge, affect/motivation, and skills that enable individuals to adapt effectively in cross-cultural environments" (Abbe et al., 2008, p.12). Relatedly, it can be viewed as the "acquisition and maintenance of culture-specific skills required to (a) function

effectively within a new cultural context and/or (b) interact effectively with people from different cultural backgrounds" (Wilson et al., 2013, p.900).

In the context of the military, the cross-cultural competence of military personnel is defined as the knowledge, affect, and skill that are developed through experience, training, and education to increase their intercultural interaction and adjustment to different cultures (Bartel-Radic & Giannelloni, 2017; Abbe et al., 2008; Selmeski, 2007). Thus, the cross-cultural competence of military personnel is operationally defined as the knowledge, affect, skill and behaviours that enhance their ability to understand, adjust and thrive in different cultural environments that are different from their own.

As noted, although the components of cross-cultural competence are still a subject of considerable debate (Selmeski, 2007; Deardorff, 2006), generally, it is characterised by metacognitive, cognitive, motivational, and behavioral dimensions, which respectively, relates to the cross-cultural strategies, knowledge, drive, as well as action of people (Wang et al., 2015; Ang et al., 2007). The metacognitive dimension describes the process by which people acquire and understand knowledge that is useful in cross-cultural settings (Ang et al., 2007; Wang et al., 2015). The behavioral dimension describes the "outward manifestations or actions that individuals are capable of demonstrating in cross-cultural situations" (Wang et al., 2015, p. 55). The cognitive dimension is defined as having knowledge of different cultures, and the motivational aspect describes the desire and energy to achieve a particular goal or focus on a particular situation in cross-cultural settings (Ang et al., 2007; Wang et al., 2015).

The cross-cultural competence concept emphasises the need to acquire cultural knowledge that can be transferred from one culture to another (Watson et al., 2013), as well as to effectively interact with people from diverse regions of the world (Hajjar, 2010). Some scholars posit that cross-cultural competence is an ongoing process, and not event. This means that one's cross-cultural competency can continuously be improved over a period (Alizadeh & Chavan, 2016; Abbe et al., 2008). In other words, cross-cultural competence is malleable and can be developed and enhanced via cross-cultural experiences, training, and experiential learning (Leung et al., 2014; Bhawuk et al., 2008).

Furthermore, individuals can only excel in different and diverse cultures if they possess adequate levels of cross-cultural competence (Alizadeh & Chavan, 2016; Heppner et al., 2012). As a result, it is a critical issue in the international business arena since it is seen as an important instrument for averting failure in international assignment by promoting cultural and psychological adjustments of expatriates for success (Bartel-Radic & Giannelloni, 2017; Spitzberg & Changnon, 2009). Likewise, the importance of cross-cultural competence in the success and wellbeing of troops involved in cross-board and multinational missions has been attracting a lot of attention, as servicemen must effectively navigate cultures significantly different from their own in various military and peace-keeping operations (Trejo et al., 2015; Gallus et al., 2014; Abbe et al., 2008).

Cross-cultural competence may be critical in reducing mental health problems among troops directly and indirectly by complementing the role of military deployment practices. It is important to recognise that military expatriates are different from other expatriates (such as expatriate managers, international students). Military expatriates have no choice in relocation

and acceptance of international mission or assignment. They can be deployed to any place in the world based on the operational needs of their units (Stockert, 2015; Crowley-Henry et al., 2014).

Consequently, it has been argued that "all soldiers and leaders need some amount of cross-cultural competence, and the army may not be able to rely on a selection approach" alone (Trejo et al., 2015; Abbe et al., 2008, p.34). They "need a clear understanding of 'self' in a cultural context, which sets the stage to develop a sufficiently open mind and positive attitude about issues, situations, and missions that involve diverse people and places" (Hajjar, 2010, p.249). Besides, cross-cultural competence of military personnel enhances the ability of military institutions to develop a cohesive and adaptable force from different cultural settings (Mackenzie & Miller, 2017; Hajjar, 2010).

Indeed, the relevance of cross-cultural competence has been recognised in military science throughout the history of military institution. From scholars such as Sun Tzu in the 16th century to Clausewitz in the early 19th century, recognise the need to master an adversary's values, beliefs, and behaviors was recognised as crucial to emerge as the victor on the battlefield (Mackenzie & Miller, 2017). However, it has now assumed greater prominence in military training and deployment due to cultural complexity and multicultural military operations facilitated by the United Nations (Mackenzie & Miller, 2017).

2.2.4 Peacekeepers as Military Expatriates

Peacekeeping refers to the deployment of national or multinational forces to warring countries or areas, with the affected parties' consent to prevent, control and address threats of or actual armed conflicts between the warring factions (Caplan, 2015). Peacekeepers deployed in or have been deployed on international peacekeeping mission outside their country may be conceptualised as military expatriates. The term expatriate is defined as individuals who have been asked to live and work in a different country based on the operational needs of his or her organisation (Tharenou, 2010). Military personnel on international military operations or peacekeeping have similar characteristics as traditional expatriates (Fisher et al., 2015; Selmer & Fenner, 2009) because military personnel may be deployed in various international assignments (Crowley-Henry et al., 2014; McPhail et al., 2012).

Although not all traditional expatriates have the option to reject or accept international assignment since it may suggest lack of organisational commitment with negative implications for other organisational opportunities (Fisher et al., 2015; Bolino, 2007; Stahl et al., 2002), the Military expatriates have no choice in relocation and acceptance of international mission or assignment. They can be deployed in any place in the world based on the operational needs of their units (Stockert, 2015; Crowley-Henry et al., 2014), and must accept relocation and international assignment as part of their commitment to active military service (Fisher et al., 2015).

2.2.5 Mental Health among Military Expatriates

The concept of health has been described as a state of absolute physical, mental, and social well-being, and not just a mere absence of disease or infirmity (WHO, 2005). Mental health refers to the ability of a person to cope with the stresses of life, function effectively including making meaningful contributions to their society (WHO, 2019). Mental health problems include PTSD, depression, anxiety, among others. PTSD is a mental health disorder that is "characterized by re-experiencing distressing memories or images of a traumatic event, accompanied by prolonged negative changes in affective state or mood, markedly increased arousal and avoidance behaviors" (American Psychiatric Association, 2013).

Thus, the key categories of PTSD symptoms are re-experiencing, avoidance, as well as hyperarousal symptoms. Re-experiencing symptoms include intrusive memories, having nightmares and flashbacks due to encountered traumatic events. Avoidance symptoms comprise of the avoidance of thoughts and activities that are related to traumatic events, diminished or lack of interest, inability to recall traumatic events, and emotional detachment. Also, hyperarousal symptoms of PTSD may consist of difficulty with sleeping, getting irritation and angry at the least provocation, and inability to concentrate well (American Psychiatric Association, 2000; 2013).

As noted, military personnel are exposed to multiple sources of chronic, acute, and potentially mental health problems including traumatic stress and depression. Irrespective of the types of positions deployed in combat and peace-keeping zones, military personnel still face a real chance of exposure that can eventually lead to deterioration in their mental health capabilities (Molgjord et al., 2016; Lukey & Tepe, 2008). For instance, Sareen et al. (2008) observed that

as much as 13% of Canadian and one-fifth of Australian troops respectively were pre-disposed to PTSD symptoms.

Recently, Fisher et al. (2015) examined the level of mental health problems and their potential buffers among female military personnel of the United States' Army, who were deployed in combat settings in five war zones. The authors used content analysis of oral histories over the last six (6) decades and found that female military expatriates deployed in different war zones were sexually harassed or were faced with threats of sexual violence for female veterans (Fisher et al., 2015). Those deployed during the Gulf War faced several resistances from the host country because the country was not ready to accept women in managerial roles, thereby increasing psychological stressors among female military expatriates (Fisher et al., 2015).

Similarly, prior studies have made various attributions of peacekeepers associated with distress and PTSD (Ghaffarzadegan et al., 2016; Raju, 2014). These include combat and traumatic events exposure, pressure to uphold restraints (sometimes under extreme provocations), duration and number of deployments, physical health problems, and sexual harassment during deployment. For instance, it has been suggested that peacekeepers that were exposed to human massacres and other atrocities during combat and peace-keeping operations have experienced higher rates of self-reported distress and PTSD symptoms (Harvey et al., 2017; Keskinen & Simola, 2016; Ghaffarzadegan et al., 2016; Smith, 2016; Terzungwe et al., 2016). This is similar to other evidence which suggested that combat and traumatic event exposures are stronger and most consistent factors for distress among peacekeepers (Ghaffarzadegan et al., 2016; Raju, 2014; Sareen et al. 2008; Asmundson et al., 2002).

Recently, and relatedly, Osório et al. (2017) examined PTSD level among military personnel of the United Kingdom, who were deployed to Afghanistan in 2009 using survey data from 2,510 military personnel. The study showed that military personnel who had greater exposure to violent combat had re-experiencing and numbing symptoms. However, proximity to wounding or death experiences increased the re-experiencing and anxious-arousal PTSD symptoms but those who were exposed to explosive device experienced more anxious-arousal symptoms.

Also, the pressure to uphold restraints in critical situations during routine deployment activities was a major cause of distress and PTSD symptoms development. Restraints increase mental health problems due to frustrations resulting from compliance with the rules of engagement, despite coming under fire, or witnessing a massacre, and frustrating negotiations at checkpoints (Raju, 2014; Maguen et al., 2004). Similarly, duration, frequency and number of deployments have been found to impact on the dimension of peacekeepers association with mental disorders. In a study amongst US peacekeepers deployed in Yugoslavia, Adler and Dolan (2006) found out that 'first timers' and personnel deployed for longer periods of time had higher levels of PTSD.

This is consistent with Dwyer (2022), Shigemura (2016) and Raju (2014), evidence that first time soldiers have higher rates of stress as compared to 'veteran' peacekeepers. It similarly supported findings obtained by Richardson et al. (2007) amongst Canadian peacekeepers, and Ballone et al. (2000) among Italian peacekeepers. Richardson et al. (2007) in a study with Canadian peacekeepers have demonstrated the association of physical injury and conditioning with post-deployment PTSD. One study among US peacekeepers from Somalia demonstrated

an association between sexual harassment during deployment and PTSD symptoms both in men and in women (Fontana et al., 2000).

Unlike other categories of expatriates, military expatriates often are not accompanied by their spouse or family to their assignment location. Their mental health issues can therefore be negatively affected due to the lack of necessary social resources coupled with the constant 'hostile fire or imminent danger' that are often associated with military operations. Thus, isolation, boredom, and home sickness can cause mental health problems among service personnel (Raju, 2014)

On the other hand, Hotopf et al. (2006) posit that military personnel may, through repeated traumatic exposures, become 'immunised' to traumatic reactions. This suggests that some servicemen may not experience any mental health symptoms despite their encounter with traumatic events and stressors that can trigger mental health problems. Asides, in advanced military institutions, military leaders are often proactive in taking measures to screen, identify and management issues of mental health among the military personnel (Dunt, 2009; Pols & Oak, 2007). For instance, the US Army is said to prioritise psychological screening of soldiers since the World War II (Jones et al., 2003). Likewise, in the United Kingdom, screening mental health disorders is given a maximum attention as it is seen as mechanisms for maximising the manpower resources (Jones et al., 2003). Similar practices exist in other developed countries like Australia, Canada, Germany, and Netherlands just to cite a few (van Dyk, 2009). However, it is lacking in most armed forces in Africa (Adler & Castro 2013).

2.3 Empirical Review and Hypotheses Development

This presents prior studies and hypotheses on the relationship between deployment practices and mental health outcomes, the influence of cross-cultural competence on mental health outcomes, and the link between resilience and mental health outcomes.

2.3.1 Military Deployment Practices on Mental Health of Military Expatriates

A few studies have examined the effect of pre-deployment preparation (Collins et al., 2017), exercise or physical training (Whitworth & Ciccolo, 2016), and social support of military units during the deployment (Zang et al., 2017; Cherry et al., 2015; Fisher et al., 2015; Gibbons et al., 2012) on the mental health outcomes of military personnel. For instance, Collins et al. (2017) examined the extent to which military pre-deployment preparations affect depression among military members and their spouses. They used online survey data from 151 members and their spouses of the United States Army National Guard and applied the hierarchical regression for the analyses. The results showed that logistical and instrumental preparations for a scheduled deployment contribute significantly towards reducing depressive symptoms among the respondents. It again showed that social support and other informal resources help people to effectively adapt during periods of stressful transition. In a related study, Whitworth and Ciccolo's (2016) systematic review findings showed that regular exercise or training can reduce the rate of PTSD among military veterans.

Furthermore, Zang et. al. (2017) investigated the role of social resources on the severity of PTSD among military personnel. The study used the structural equation modelling (SEM) to analyse cross-sectional survey data from 366 military personnel with PTSD during their

deployment in Iraq and Afghanistan. The results indicated that social support and military unit support significantly reduced the level of severity of PTSD among military personnel. Stanley et al. (2018) study also reinforced that perception of belongingness and social support attenuate PTSD symptom severity. Likewise, Gibbons et al. (2012) used the integrative literature review method to analyse the extant literature on how supportive environment can alleviate PTSD and other mental health difficulties among military healthcare. Their evidence indicated that the existence of a supportive environment can reduce the negative impacts of dangerous and stressful events among deployed military healthcare providers. Relatedly, results of a meta-analysis showed that poor unit cohesion increases PTSD symptoms among military personnel (Wright et al., 2013).

In the UK, Harvey et al. (2011) reported that PTSD symptoms are greater among military personnel who perceive the support of their military unit to be lacking. Other studies also found that higher military unit support during deployment can lower PTSD among active-duty service members but not among National Guard Soldiers (Han et al., 2014). This is attributed to the full-time status of active-duty soldiers' regular engagement with their units (Han et. al., 2014; Harvey et al., 2011). In another study, Fisher et al. (2015) examined the level of mental health problems and their potential buffers among female military expatriates of the United States' Army, who were deployed in in combat settings in five war zones. The authors used content analysis of oral histories over the last six (6) decades and found that female military expatriates tend to face varying degrees of physical and psychological stressors during their deployment. It further revealed that to succeed, many have used several copying mechanisms

including social support from family and friends while others utilised crying and depend on their religious faith.

In a non-military setting, Cherry et al. (2015) used survey data from 219 residents of communities in south Louisiana that were affected by major natural disasters to determine factors that predict their mental health outcomes since such events are traumatic in nature. The authors found that perceived social support and religiosity had a protective effect on all the mental health outcomes considered. These findings are like the results of another civilian study conducted by Boehm-Tabib (2016). Boehm-Tabib (2016) assessed the moderating role of resources and social capital in the relationship between acute stress disorder and post-traumatic growth using a two-wave survey data from 301 civilians who experienced or witnessed wars. The results showed that resource gain but not resource loss has moderated the link between the two variables. This result contracted the predictions of the COR theory that increases in stress levels due to loss of valued resources is greater than gaining resources. The findings however, indicated that social capital plays no moderating role in the nexus between acute stress disorder and post-traumatic growth, suggesting that social capital resources do not protect people against post-traumatic growth following exposure to a traumatic event.

Thus, the preceding paragraphs suggests that social support of military units during deployment, and pre-deployment preparations can help reduce PTSD. This means that a feeling and culture of institutional and social support, creating 'a feel-good mentality', and a high sense of belonging and camaraderie, is a panacea for resistance to stress, pain, injury, and trauma. It has also been empirically established that social support, including situations where individuals can talk and relate the traumas they were exposed to (Greenberg et al., 2008;

Bolton, et al., 2002), help decrease risk of self-reported PTSD systems. Similarly, social support can aid military personnel to generate meaning from experiences and sacrifices to reduce future risks of PTSD (Gray et al., 2004). It may also suggest that effective selection, pre-deployment training and preparations can aid military personnel to better adjust to stressful and traumatic events, hence, less likely to experience mental health problems such as PTSD and depression.

Similarly, longitudinal evidence indicates that the mental health and wellbeing of military officers at pre-deployment can significantly influence their subsequent mental health and well-being during deployment and reintegration (Wright et al., 2012). In another longitudinal study, Sandweiss et al. (2011) showed that depression and anxiety among military personnel prior to deployment significantly increases PTSD symptoms during deployment. Thus, it is important to give equal prominence to pre-deployment and during deployment phases in relation to the mental health consequences for servicemen like the reintegration phase as it can bring about significant shift in military deployment practices and policies for greater mental health outcomes for the deployed soldiers.

This is because the role of pre-deployment interventions in enhancing the mental fortitude of solders to become less vulnerable to PTSD can be significantly strengthened by effective deployment interventions such as presence of high social support for military unit during deployment. Similarly, some evidence suggests that pre-deployment activities such as informing personnel of their selection for international military operation increases PTSD among some soldiers prior to their actual deployment. For example, Bartone (2008), in a 2-

week study found out that 81 US soldiers preparing for deployment in Yugoslavia, had increased levels of stress due to uncertainty of getting to know their peers as well as time pressure and conflicts with family responsibilities during the preparatory stages. This means that such soldiers' mental health problems could deteriorate during actual deployment when exposed to traumatic events but could be buffered if they get high social support from their military unit in theatre.

However, empirical studies on how pre-deployment practices (specifically, selection, training and preparation) and social support from military unit during the deployment can affect mental health of military personnel generally and specifically in the Ghanaian context is limited relative to research on how post-deployment or reintegration phases, deployment environment and nature of deployment affect mental health outcomes among military personnel. Hence, this study aimed to contribute to the limited literature by examining the effect of military deployment practices (selection, training and preparation, and unit social support) on the mental health outcomes of military expatriates. Thus, the hypothesis.

> ***H1:*** *Military deployment practices (selection, training and preparation, and unit social support) will have significant effects on the mental health outcomes of military expatriates.*

2.3.2 Cross-cultural Competence on Military Deployment and Mental Health of Military Expatriates

Some researchers have examined the influence of cross-cultural competence on mental health outcomes among various population or groups (e.g., Wesołowska et al., 2018; Stockert, 2015; Wang et al., 2015). Wesołowska et al. (2018) investigated the effect of cross-cultural

competence (empathy, skills, positive attitudes, and motivation) on mental health problems of psychological distress, and sleep problems in Finland. The study used SEM to analyse a cross-sectional survey data from 212 foreign-born nurses practicing nursing in Finland and 744 native Finnish nurses. Their findings showed that only cross-cultural empathy provides significant protection against distress, and sleep problems in both native and foreign-born nurses. Relatedly, Wang et al. (2015) examined the influence of cross-cultural competence on the level of adjustment and wellbeing of international students. The study used a four-wave survey data from 221 Chinese international students pursuing their academic programmes in the United States. Its results showed that cross-cultural competence has a significant positive relationship with subjective wellbeing among international students.

In the military setting, Stockert (2015) examined how cultural intelligence affects the adjustment of military expatriates. The study collected online survey data from 64 members of the United States Air Force deployed on international assignments in Germany. The results indicated that all the dimensions of cultural intelligence positively predicted military expatriates' adjustment. In a related study, Trejo et al. (2015) examined the antecedents for the development of cross-cultural competence among military personnel of the United States' Army. Their results found that emotional regulation and optimism facilitate the development of cross-cultural competence with respect to cross-cultural knowledge, skills, and abilities among the military personnel. Earlier, Hajjar's (2010) study showed that addressing cultural diversity problems can enhance the cross-cultural competence among the military personnel of the United States Army in the military. In their views, cross-cultural competence can enhance their success in deployed missions or peacekeeping assignments.

From the above, the extant cross-cultural competence literature and mental health outcomes is limited to traditional expatriates (e.g., Wesołowska et al., 2018), and international students (e.g., Wang et al., 2015). The few studies that were conducted among military expatriates or personnel were mainly limited to the antecedents of cross-cultural competence development (e.g., Trejo et al., 2015; Hajjar, 2010). They were also mainly conducted in foreign contexts, particularly, the United States Army forces to the neglect of armed forces in developing countries like Ghana. This means that the effect of cross-cultural competence on mental health outcomes of military expatriates is yet to be given the needed empirical research attention. Hence, this study sought to examine whether cross-cultural competence will have significant positive effects on the mental health outcomes of military expatriates of the Ghana Armed Forces. Thus,

> ***H2:*** *Cross-cultural competence will have significant positive effects on the mental health outcomes of military expatriates of the Ghana Armed Forces.*

Moreover, and as noted, the limited evidence suggests that cross-cultural competence may improve adjustments and mental health-related outcomes (Wesołowska et al., 2018; Stockert, 2015; Wang et al., 2015). Similarly, pre-deployment preparation (Collins et al., 2017), exercise or physical training (Whitworth & Ciccolo, 2016), and social support of military unit during deployment (Zang et al., 2017; Cherry et al., 2015; Fisher et al., 2015; Gibbons et al., 2012) may improve the mental health outcomes of military personnel.

This suggests that cross-cultural competence and military deployment practices may interact to boost the mental health of military expatriates. However, research on the interactive or

moderating effects of cross-cultural competence and military deployment practices on mental health are limited. This seems to agree with the assertion that although cross-cultural competence has been a priority for major military institutions over the years, empirical studies on it within military pollution and context are scanty (Crowley-Henry et al., 2014; Gallus et al., 2014; Selmer & Fenner, 2009). Hence,

> ***H3:*** *Cross-cultural competence will significantly moderate the relationship between military deployment practices and mental health outcomes of military expatriates.*

2.3.3 Resilience on Military Deployment Practices on Mental Health of Military Expatriates

The role of individuals' resilience on mental health outcomes has gained some attention in the literature on mental health management. For instance, Zang et al. (2017) investigated the role of personal resources (including resilience) on the severity of PTSD among military personnel. They used SEM to analyse cross-sectional survey data from 366 military personnel with PTSD during their deployment in Iraq and Afghanistan. The study found that the trait of resilience significantly reduced the severity level of PTSD among military officers.

Earlier, Gibbons et al. (2012) used the integrative literature review method to analyse the extant literature how personal resources or traits can alleviate PTSD and other mental health difficulties among military healthcare. The evidence indicated that the existence of a strong sense of meaning, and purpose contributed significantly towards reducing the negative impacts of dangerous and stressful events among deployed military healthcare providers. In considering coping abilities, both Ippolito et al. (2005) and Dirkzwager et al. (2003) found

that peacekeepers with active coping capacities, such as wishful thinking, have a decreased PTSD susceptibility as compared to those with passive coping psyche.

Recently, Hernández-Varas et al. (2019) have examined the influence of psychological capital on the psychological wellbeing of military personnel. They used questionnaire data from 492 Spanish soldiers and used the multiple linear regressions for the analysis. Their findings suggested that psychological capital has a positive effect on psychological wellbeing and also accounted for 80% of the variance in psychological wellbeing. They consequently argued that when programmes are developed to enhance soldiers' psychological capital, it will improve their psychological wellbeing.

Earlier, in Nigeria, using survey data from 340 police officers, and SEM as the analytical tool, Ojedokun and Balogun (2015) found that psychosocial capital, that is, psychological capital (comprising of resilience, optimism, self-efficacy, and hope) and social capital have negative effects on traumatic stress. In a related study, Lee et al. (2013) examined the influence of psychological resilience mental health of members of Canadian Armed Forces (CF) deployed in oversea assignment. Data was collected from 1,584 military personnel deployed in Afghanistan from 2008 to 2010 and multiple linear regression employed to analyse the data. The results showed that resilience has a significant positive impact on the mental health of military expatriates. In other words, resilience improves the level of mental health by reducing the negative impacts of traumatic events among the military personnel deployed in international military operations.

In the United States, Hughes et al. (2018) assessed the influence of psychological resilience on the mental health of members of the United States Military. It used survey data from 1,118 military personnel who had been deploy in one or multiple international deployments. The hierarchical linear regression was applied to analyse the data. The results suggested that measures of resilience (that is, adaptability and self-efficacy) significantly buffered against poor sleep and psychological distress.

In Ghana, Afful (2017) has explored the moderating role of resilience in the link between post-deployment (reintegration experiences) and mental health of post-deployed soldiers using the mixed research method. It collected survey data from 204 post-deployed soldiers and interviewed seven (7) post-deployed soldiers of the Ghana Armed Forces. The study found that while resilience did not significantly moderate the influence combat experience on mental health symptoms, it has significantly moderated the relationship between negative work reintegration experiences and mental health problems (consisting of anxiety, depression as well as PTSD).

Southwick et al. (2016) also found out that some individuals are more resilient than others largely because of composite factors which eventually affect their medium to long term mental health conditions. This means that resilience can buffer against PTSD in military personnel who are exposed to early-life and combat trauma (Green et al., 2014; Galatzer et al., 2013; Pietrzak et al., 2011). Furthermore, from the psychodynamic and behaviourism standpoints, resilience is a critical factor in mediating and or moderating the deleterious effects of trauma

on individuals because it buffers the impact of traumatic events on the development of PTSD symptoms (Lee, 2019; Lee et al., 2014).

It may also be attributed to a 'feel good and feel happy' mentality, even in the trauma and uncertainty of a conflict environment, from a perspective of the meaningfulness of the mission (Britt et al., 2007; Britt et al., 2001), homecoming reception (Bolton et al., 2002) and social support systems (Bolton et al., 2002; Greenberg et al., 2008), where individuals have the opportunity to talk and relate the traumas they were exposed to, help decrease risk of self-reported PTSD systems.

However, these studies focused significantly on direct effect of resilience on PTSD among servicemen but those on how resilience moderate the influence of pre-deployment practices (selection, training and preparation) and deployment practices (unit social support) on PTSD and depression in deployed soldiers is largely scanty and difficult to find

H4: *Resilience will significantly and positively influence the mental health outcomes of military expatriates.*

H5*: Resilience will significantly moderate the effect of military deployment practices on mental health outcomes of military expatriates.*

2.4 Conceptual Framework

Figure 2.1 presents a conceptual framework which guides the study. It depicts the relationship between deployment practice, resilience, cross-cultural competence, and mental health of military expatriates. From the theoretical perspective of the COR theory (Hall et al., 2014;

Hobfoll & Ford, 2010; Hobfoll et al., 2006), and the few available literature (e.g., Collins et al., 2017; Zang et al., 2017; Cherry et al., 2015; Fisher et al., 2015), the study argues that military deployment practices can increase mental health outcomes by reducing depression and PTSD among military expatriates. And as indicated, pre-deployment practices (selection, training, and preparation) can equip military expatriates with vital skills and knowledge, as well as energy to withstand traumatic and stressful events, thereby, boosting their mental health. It similarly posits that effective provision of social support by military units to their members during the deployment constitute vital resource for enhancing the mental health of military expatriates because it is seen as a useful buffer against stressful and traumatic events. In the light of this, the study argues that *military deployment practices (selection, training and preparation, and unit social support) will have significant effects on the mental health outcomes of military expatriates* (***H1***).

Similarly, based on the suggestion that cross-cultural competence can influence mental health outcomes among various population or groups (e.g., Wesołowska et al., 2018; Stockert, 2015; Wang et al., 2015), this study proposes that *cross-cultural competence will have significant positive effects on the mental health outcomes of military expatriates of the Ghana Armed Forces* (***H2***). In addition, *since cross-cultural competence and military deployment practices may individually influence mental health outcomes,* they may also interact to boost the mental health of military expatriates. As a result, it is argued that *cross-cultural competence will significantly moderate the relationship between military deployment practices and mental health outcomes of military expatriates* (***H3***).

Furthermore, from the perspective of the resilience theory (Hu et al., 2015; Prince-Embury, 2013; Ungar, 2008; Csikszentmihalyi & Seligman, 2000), and the empirical literature (Hernández-Varas et al., 2019; Hughes et al., 2018; Zang et al., 2017; Lee et al., 2013; Gibbons et al., 2012), it can be argued that soldiers who are resilient are less likely to develop mental health problems such as PTSD and depression when exposed to traumatic events as it enhances their ability to adapt to and tolerate difficult situations. This is because resilience of military expatriates or individuals provides protection against mental health problems by directly reducing mental health difficulties (***H4***) as well as indirectly enhancing the influence of military deployment practices on the mental health of military personnel during peacekeeping or deployment (***H5***).

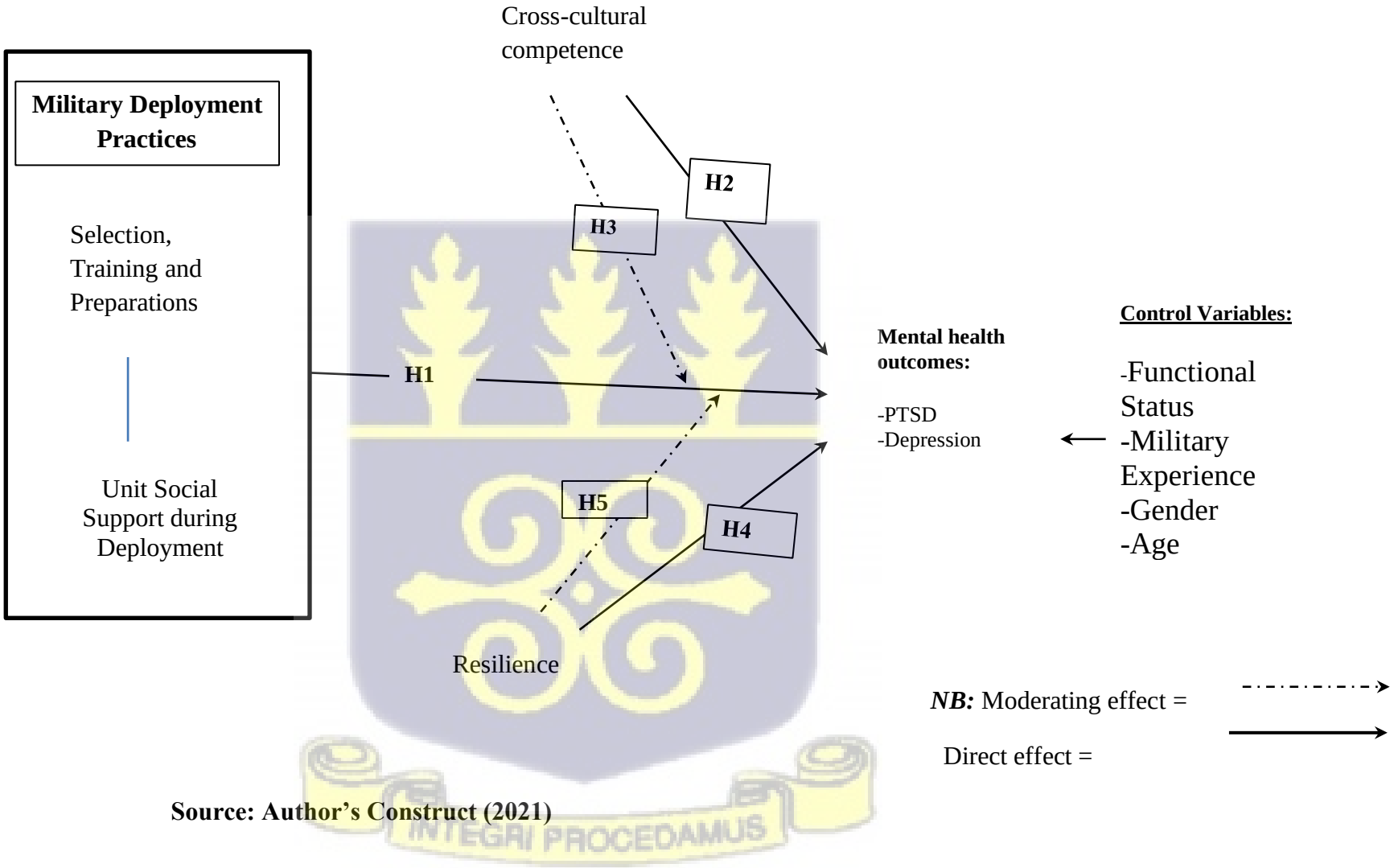
Control variables enhance the internal validity of a study by limiting the influence of confounding and other extraneous variables to establish a correlational or causal relationship between the variables of interest, that is, the independent and dependent variables (Atinc & Simmering, 2021; Child et al., 2021; York, 2018; Bernerth et al., 2017; Bernerth & Aguinis, 2016; Atinc et al., 2012; Carlson & Wu, 2012). The study controls for factors such as functional status, age, gender, and marital status because of their potential relationship with both mental health outcomes and its predictors of military deployment practices, resilience and cross-cultural competence. Even though Sampasa-Kanyinga et al. (2018) investigated the relationship between educational level as a variable in mental disorder and psychological distress, not much discussion evolved. It is significant to control for the effect of the level of education of military expatriates, who are exposed to stress and trauma during peacekeeping

operations since one's level of education and knowledge may vary be susceptible to PTSD development.

Likewise, functional status is an important control variable because the exposure of an individual to risks and danger during military operations will differ remarkably depending on the part of the theatre of operations – in direct combat, administrative, administrative, communications etc. Highly kinetic fluid operations are more likely to witness and thereby engender greater trauma (Lee, 2019; Sampasa-Kanyinga et al., 2018; Lee et al., 2014) and stress than static or dormant operations. Relatedly, in Ghana, Afful (2017), using survey data from 204 post-deployed soldiers and 7 interviewed post-deployed soldiers of the Ghana Armed Forces found that combat experience increases symptoms of PTSD, depression, and anxiety among Ghanaian post-deployed soldiers.

Also, Necku's (2015) analysis of Ghana Armed Forces' non-commissioned officers, who were both active and retired in some parts of the country, specifically, Accra and Volta regions, indicated that gender moderated the influence of military-civilian transition on psychological well-being. In Nigeria, Dami et al. (2018) investigated the determinants of PTSD among military combatants using survey data from 249 military personnel. The results showed that religious affiliation and combat exposure directly affected PTSD, but their interactive effect was insignificant.

Figure 2.1: A Conceptual Framework of Military Deployment, Cross-Cultural Competence, Resilience and Mental Health of Military Expatriates



Source: Author's Construct (2021)

2.5 Chapter Summary

In summary, this chapter discussed the relevance of COR Theory, JD-R model, and the Resilience Theory in framing the relationship between military deployment, cross-cultural competence, resilience, and mental health outcomes. It further discusses the concept of military deployment practices, cross-cultural competence, mental health, and the state of mental health among military personnel. This was followed by a review of past studies leading to the development various direct and moderating relationships between deployment practices, mental health outcomes, cross-cultural competence, and resilience of military expatriates. Finally, it proposed conceptual framework based on the stated theories and evidence from past studies for empirical testing among military expatriates of the Ghana Armed Forces.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The preceding chapter discussed the theoretical and empirical literature on military deployment, cross-cultural competence, resilience, and mental health outcomes. This chapter presents the research methodology. It examines the research paradigm, research approach, and research design of the study. It further presents the population, sample size and sampling procedure, and describes the data sources and collection procedure. Moreover, it discusses the research instruments (questionnaire and semi-structured interview guide), validity and reliability assessment (in both the quantitative study and qualitative study), data analyses (of both quantitative analysis and qualitative analysis), and ethical considerations.

3.1 Research Paradigm

A research paradigm refers to a researcher's worldview (Jonker & Pennink, 2010; Creswell, 2003). It is a "comprehensive belief system, world view, or framework that guides research and practice in a field" (Willis, 2007, p.8). Thus, it provides a framework for conducting research investigations into a particular topic (Bunniss & Kelly, 2010; Healy & Perry, 2000). According to Saunders et al. (2009), the main paradigms in business and management research are positivism, realism, interpretivism, as well as pragmatism. Positivism is concerned with the confirmation and prediction of law-like patterns of a particular phenomenon. It uses quantitative methods to produce results that are objective (Schrauf, 2018; Taylor & Medina, 2011). The interpretivism paradigm is concerned with making sense of the "meanings held by individuals that lead to patterns of meaning, or a theory. Knowledge generated from the research would have been co-constructed by the

participants and researcher, and the knowledge cannot be assumed to be generalized, but may be transferred" to other situations (Hennink et al., 2020; Petty et al., 2012, p.270). The realist argues that there is a "real" world to discover although it is only imperfectly apprehensible (Hennink et al., 2020; Petty et al., 2012). The pragmatism paradigm posits that appropriate research method should be informed by the research question and 'what works' best (Morgan, 2014).

The paradigm of this study is pragmatism. This is because this paradigm made it possible for the researcher to employ the mixed research method, that is, both quantitative and qualitative (Morgan, 2014; Johnson & Onwuegbuzie, 2004). This is because it supports the application of a mix of different research methods and analytical frameworks to produce knowledge that is socially useful and acceptable (Feilzer, 2010, p.6; Johnson & Onwuegbuzie, 2004;). In particular, the pragmatic paradigm enables researchers to "combine methodologies even within the same project as it enables us to use those research techniques which suit the research problem at hand" (Taylor et al., 2011; Guthrie, 2010, p. 45). This makes it possible to obtain better understanding of social issues that are under investigation (Maleku et al., 2021; Ivankova & Wingo, 2018; Akinsulure-Smith, 2017; Wahyuni, 2012; Creswell & Tashakkori, 2007; Johnson & Onwuegbuzie, 2004).

Epistemologically, it allowed the researcher to integrate both observable and objective interpretations to create knowledge to enhance the understanding of the state of post-traumatic mental health problems among military expatriates and how deployment practices, cross-cultural competence and resilience helps in improving their mental health states. Ontologically, it helped in generating insights into the topic under investigation from multiple perspectives of reality, and its axiological position ensured that the research leveraged on the benefits of both subjective and

objective perspectives in generating valid understandings from the data (Maleku et al., 2021; Wahyuni, 2012; Johnson & Onwuegbuzie, 2004).

3.2 Research Approach

The main research approaches are the qualitative method, the quantitative method, and the mixed method – a combination of quantitative and qualitative data (Munce et al., 2021; Ivankova & Wingo, 2018; Saunders et al., 2009; Creswell & Tashakkori, 2007; Kelle, 2006; Tashakkori & Teddlie, 2003; Patton, 2002). This study is based on the pragmatism paradigm. Hence, it used the mixed method approach for the data collection and interpretation which promotes viewing the issues under investigation from different sources, evidence types and perspectives in order to get a balanced view (Onwuegbuzie & Corrigan, 2014; Creswell, 2003). Maleku et al. (2021), Onwuegbeze and Corrign (2014), and Creswell (2003), are of the view that this approach is appropriate, drawing more robust and valid conclusions in research, because of the opportunity to triangulate the findings. Hence, both qualitative and quantitative approaches were used in data collection to confirm, cross-validate, or corroborate findings across varying situations or phenomena.

In particular, this study used the sequential mixed method, that is, the qualitative data was collected after the quantitative data was analysed, offering the opportunity to delve into some of the thorny issues from the quantitative data, thereby producing a more 'complete' or balanced knowledge (Maleku et al., 2021; Headley & Clark, 2020; Creswell & Tashakkori, 2007) on the issue of mental health among military expatriates and the direct and moderating roles of military deployment practices, resilience and cross-cultural competence. The quantitative approach allowed for the

collection of data in large numbers for possible generalisation (Creswell & Tashakkori, 2007). It also allowed for the measurement of two or more variables, testing of hypotheses and the relationship that exist between or among the variables of concern using statistical techniques. The quantitative findings were triangulated with the qualitative data collected via semi-structured interviews of individuals (Creswell & Tashakkori, 2007). The qualitative approach "is most appropriate when the purpose of the research is to study things in their natural setting, attempting to make sense of or interpret phenomena in terms of the meaning people bring to them" (Denzin & Lincoln, 2005, p. 3). Thus, the quantitative findings are complemented with the qualitative findings (Ivankova & Wingo, 2018; Creswell, 2013; Creswell & Tashakkori, 2007) to appropriately answer the research questions.

3.3 Research Design

The study used the cross-sectional survey design in the implementation of the quantitative aspect of the study. This involved the collection of data from large respondents at a point in time via the use of structured questionnaires to elicit responses from serving military expatriates on issues of military deployment practices, mental health, resilience, and cross-cultural competence. With respect to the qualitative aspect, the researcher used the cross-sectional case study design. Yin (2014) defines the case study "as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used." This helps in generating useful in-depth perspectives from the respondents to answer the research questions.

3.4 Population, Sample Size and Sampling

3.4.1 Target Population

Research population describes an entity that a researcher seeks to derive inferences about (Banerjee & Chaudhury, 2010; Babbie, 2008). The study's population is defined as military expatriates of the Ghana Armed Force across various ranks including serving generals, senior officers in command, senior officers not in command, junior officers, warrant officers, other ranks, and units (combat, administrative, logistics, communications). The reasons for focusing on military expatriates and the Ghana Armed Forces are as follows: Firstly, as noted, military service involves exposure to multiple sources of traumatic events that can eventually lead to deterioration in their mental health capabilities (Ippoliti et al., 2017; Molgjord et al., 2016; Lukey & Tepe, 2008). It has been noted that peacekeepers that are exposed to human massacres and other atrocities during combat and peace-keeping operations tend to develop higher rates of self-reported distress and PTSD symptoms (Harvey et al., 2017; Keskinen & Simola, 2016; Ghaffarzadegan et al., 2016; Smith, 2016; Terzungwe et al., 2016).

Hence, it would be useful to understand how military deployment practices (e.g., Zang et al., 2017; Collins et al., 2017; Whitworth & Ciccolo, 2016), together with personal resources, like resilience (Loscalzo et al, 2018; Keskinen & Simola, 2016; Hoge et al., 2007; Bober & Regehr, 2005), and cross-cultural competence have been effective in buffering against mental health problems such as PTSD and depression (Alizadeh & Chavan, 2016; Heppner et al., 2012) among military expatriates as they work towards a more peaceful world through their participation in various peacekeeping operations. Secondly, the focus on military expatriates of the Ghana Armed Forces is important because, as indicated in Chapter One, there have been significant upsurge in troop deployments

and activities in different theatres, especially, over the past two decades. Indeed, Ghana has consistently been ranked among the top ten countries that contribute personnel for UN operations over the last twenty years (Aubyn & Aning, 2015), with over 200,000 troops deployed since the first deployments to peace-keeping mission in the 1960s (UNDPKO, 2017). In the last two decades, 61,000 troops from Ghana have participated in several international or UN peacekeeping operations (UNDPKO, 2021a), the details of which are summarised in Table 3.1.

During the period, the country has had the fourth highest number of fatalities after India, Bangladesh, Nigeria, and Pakistan (UNDPKO, 2021b; see Table 3.2). In some cases, troops have witnessed indescribable bloody incidents, violence, and mayhem which have left scars on their psyche and sometimes affected the way they behave long after the event. The psychosocial impact of these deaths on families, colleagues and indeed the whole society is tremendous. Hence, it is timely to assess the roles of military deployment practices and personal resources of resilience and cross-cultural competence on the mental health outcomes of Ghanaian contingents in international peacekeeping missions or operations.

Table 3.1: Total Number of Ghanaian Troops Deployed Annually Over the Last 21 Years and World Ranking

Srl	Year	World Ranking	Total No of Troops Deployed (2000 – 2021)
1.	2021	9	2,296
2.	2020	10	2,306
3.	2019	9	2,801
4.	2018	9	2,792
5.	2017	10	2,678
6.	2016	9	2,935
7.	2015	8	3,198
8.	2014	7	2,993
9.	2013	9	3,005
10.	2012	10	2,814
11.	2011	10	2,989
12.	2010	9	2,966
13.	2009	9	3,633
14.	2008	7	3,362
15.	2007	6	3,379
16.	2006	5	2,694
17.	2005	7	2,520
18.	2004	6	3,320
19.	2003	5	2,306
20.	2002	5	2,210
21.	2001	6	2,462
22.	2000	4	2,002
	TOTAL		**61,661**

Source: Author's Compilation; UNDPKO (2021a)

Table 3.2: Top 10 Troop Contributing Countries with Highest Fatalities

Srl	Country	Total Fatalities	Number of Missions
1	India	173	25
2	Bangladesh	158	23
3	Nigeria	157	16
4	Pakistan	157	17
5	Ghana	143	22
6	Ethiopia	137	10
7	Canada	123	17
8	France	114	11
9	Ireland	90	9
10	Nepal	83	21

Source: UNDPKO (2021b)

It is important to note that, only military personnel of the Ghana Armed Forces, who are in active service and have been deployed in at least one international peacekeeping operation were considered in this study. It included those who are currently in deployment, just returned from deployment, and those who have had at least one deployment experience in the last six years (that is, from 2016 - 2021) but have again gone through the processes of deployment preparation for impending deployment in international peacekeeping operations. The study limited its focus to the last six years to prevent issues of vital loss of information with respect to the military expatriates' experiences with traumatic events and mental health issues suffered during their military activities abroad or in different cultural contexts. This is because they may not be able to accurately recall their experiences to give vivid accounts of the issues being investigated when there are significant lapses in time. The total target population was 15,808 troops (see Serials 1 – 6 of Table 3.1 above,

that is, from 2016 - 2021). This is based on the data available from the Ghana Armed Forces on deployed troops in international peacekeeping missions in the years under consideration.

3.4.2 Sample Size

A sample is a unit of the population that has been selected to represent the whole (Crouch & Housden, 2003). The study's sample size based on the above stated target population, which is 15,808 (as of 30 September 2021, computed total number of Ghanaian troops deployed over the period 2016 - September 2021) was determined using Krejcie and Morgan's (1970) sample size calculation determination table. According to the sample calculation table provided by Krejcie and Morgan (1970), a population of 10,000 requires a sample size of 370 and a population of 15,000 requires a sample size of 375. Similarly, a population of 20,000 requires a sample size of 377. Thus, based on this calculation, a sample of 375 was scientifically adequate. The researcher, however, increased it to 450 respondents for the quantitative study. This was necessary to account for potential problems of non-response and improper completion of the administered questionnaires. The quotas assigned to the various units were based on operational and administrative exigencies; units in pre-operational training and those deployed in the three theatres received high quotas due to the number of potential respondents located in proximity. The eligibility criteria for respondents' consideration to participate in the quantitative survey included being in active service, completed pre-operational training, deployed in at least one external peacekeeping mission, and just returned from a recent deployment.

Moreover, the study recruited an additional eighteen (18) respondents, thereby resulting in a total sample size of 468 (i.e., 450 respondents for the quantitative and 18 respondents for the qualitative aspects of this research).

The use of 18 respondents was informed by the saturation of the data. Data saturation refers to the "degree to which new data repeat what was expressed in previous data" (Saunders et al., 2018, p.1897). Thus, the researcher concluded the sampling and interviewing process with the 18th respondent because no new information was being observed including the themes that emerged from additional interviews that were being conducted (Boddy, 2016). It could be attributed to the homogeneity of the population (Trotter, 2012) in terms of troops with international peacekeeping experience. It also increased the rigor of the findings since data saturation is "the most frequently touted guarantee of qualitative rigor offered by authors" (Morse, 2015, p. 587). Interviewees were purposively selected, stipulating a mix of rank structure, considering all the criteria for the quantitative study, in addition to having participated in three or more missions; such candidates were considered to have had a broader spectrum of experiences than one or two-time peacekeepers.

3.4.3 Sampling Techniques and Procedures

Sampling is a process of selecting a portion of a research's target population (Malhota & Birks, 2007). The study applied the stratified, simple random, and purposive sampling methods in a four-stage sampling process (see Table 3.3). Stratified sampling method involves the partitioning of a target population into smaller groups called strata. This ensures that various groups are adequately represented in the final sample. Simple random involves the selection of respondents with an equal chance of being included in the final sample. Simple random sampling ensured that biases in the

sample are reduced or eliminated (Etikan & Bala, 2017; Saunders et al., 2009; Babbie, 2008). The purposive sampling procedure involves the deliberate choosing of participants in line with pre-determined qualities or quality criteria (Yin, 2014) such as information-rich participants (Patton, 2002).

Specifically, the stratified sampling method was adopted to divide the population (GAF) into strata based on the various Services (Army/Navy/Air Force), Commands/Formations (Southern/Central/ Northern), Units and functional status (combats arms, support services, administration, communications) to ensure representation of the entire Ghana Armed Forces. Further purposive sampling was adopted in selecting expatriates who had been on operations, at least once, during the period under review. This was followed by simple random sampling to ensure the chance of equal participation in the quantitative study. In addition to the stages above, the purposive sampling method was adopted to select the respondents across the various strata for the qualitative study based on their experience, knowledge, and frequency of participation in international peacekeeping operations.

3.5 Data Sources and Collection Procedure

The study relied solely on primary data. Ahiawodzi (2011, p.2) describes primary data as a data that is "collected at firsthand in order to satisfy the purposes of a particular statistical enquiry". The primary data was complemented with secondary data – doctrines, concept of operations, standard operating procedures (SOPs), extant and contemporary policy documents on GAF peacekeeping practices, policies and programmes, manuals, peacekeeping post-operational reports, journals, UN Department of Peacekeeping Operations (DPKO) open- source documents

and library assets of the GAFCSC and KAIPTC. Most of the secondary information were authorized by the Military High Command for the purposes of this study. It also involved the use of semi-structured questionnaires and interview guide to elicit responses from serving military expatriates on issues of military deployment practices, mental health, resilience, and cross-cultural competence.

Prior to the commencement of the data collection, an introductory letter from the Department of Organisation and Human Resource Management, University of Ghana Business School, was sent to the military high command (Appendix G) to seek permission to engage personnel of the Ghana Armed Forces in the study. The permission was granted with letters sent to the various Services, Commands, Formations and Units, introducing the research team, and further requesting the cooperation of personnel (see Appendix D and G). The Military High Command subsequently granted the researcher official access to collect the data from its targeted members (see Appendix I). This was followed by personal interactions with the heads of the various military units to finalise access issues. Permission was granted by the various heads/commanders and information sent to personnel encouraging them to participate in the study. Given that the researcher is a retired Major General and former member of the Ghana Armed Forces upper echelon prior to his retirement, measures were taken to prevent response biases. Specifically, the researcher requested the Military High Command to select suitable officers to assist by facilitating the distribution and retrieval of the questionnaires. In so doing each Service, Formation or Command selected a senior staff officer who served as a research assistant and coordinated the administration of the survey instrument. Afterwards, the researcher organised a two-day orientation or training for all nominees on the protocols of proper procedures of the distribution and retrieval of the questionnaires.

Questionnaires were administered to participants after they had consented to participating in the study and had been briefed on the purpose of the study. Efforts were made to prepare an electronic version of the questionnaires (using Google Forms) for those who wish to respond using such means as well as those serving in ongoing deployment operations.

After the questionnaires were administered, it was followed with intensive follow-ups and reminders by the various research assistants, leading to the retrieval of a remarkable number of the administered questionnaires, 434 out of 450. Thus, the high response rates and the low numbers of missing value (see Chapter Four and Appendix 4A)) detected during the data entry processes were largely attributed to the arrangements made for the collection of the survey data. Similar procedures were followed in conducting the interviews to collect the qualitative data for the study. Besides, the researcher delivered the interview guide to the selected respondents for the qualitative study via the established arrangement discussed above at least two days prior to the interview to ensure that they were adequately prepared to provide detailed and valid answers to the questions.

3.6 Research Instruments

The research instruments as noted were a structured questionnaire and a semi-structured interview guide. The following describes them in detail:

3.6.1 Questionnaires

The questionnaire had four sections, and measured demographic characteristics, military deployment practices, mental health of military expatriate, cross-cultural competence, and resilience respectively.

Section A collected ***demographic data*** of the respondents including age, sex, education, service category, rank, service tenure, trade section, number of UN operations served on, among other relevant data.

Section B collected data on ***military deployment practices*.** It was measured using a 24-item scale focusing on pre-deployment (selection, training, and preparation) and during deployment (particularly, military unit social support during deployment) activities. The study adapted 8-item from Vogt et al.'s (2012), 10-item training and deployment preparation scale, and all their 12-item unit social support during deployment scale, both of which are sub-elements of their military "Deployment Risk and Resilience Inventory-2 (DRRI-2)" questionnaire. Also, 4 items were generated based on the extant literature (e.g., Military One Source, 2012; Sheppard et al., 2010). The items generated from the literature focused on selection and inclusion: "*I was given sufficient notification of the intended deployment; I was medically and dentally examined and deemed fit for deployment; I was required to attend counseling after being selected for deployment; I was required to attend counseling post-deployment*". Sample items focusing on training and preparation included "*The training I received made me feel confident in my ability to use my equipment; the training I received prepared me to deal with the deployment climate*." Also, sample items on military unit support during deployment included: "*the leaders of my unit were interested in my personal welfare; my unit was like family to me during my most recent deployment*". The items were measured on a five-point Likert scale where "5 = strongly agree; 4 = agree; 3 = *neither agree nor disagree*; 2 = disagree; and 1 = strongly disagree". The details of the 24-item military deployment practices can be seen in appendix A.

Section C collected data on ***mental health of military expatriates*** – It was measured using a 25-item scale focusing on PTSD and depression. The PTSD was measured using Weathers et al.'s (1993) 17-item self-report PTSD Checklist (PCL-C), which assesses post-traumatic symptoms based on American Psychiatric Association's (2000; 2013) criteria of intrusive memories, avoidance and hyper arousal. Sample items included: "*Repeated, disturbing memories, thoughts, or images of a stressful experience from the operations? Avoid activities or situations because they remind you of a stressful experience from the past? Feeling as if your future will somehow be cut short? Little interest or pleasure in doing things?"*

The ***depression*** aspect was measured using the PHQ-8 algorithm diagnostic scale (Kroenke & Spitzer, 2002). Sample items included "*feeling down, depressed, or hopeless? Poor appetite or overeating? Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual".* The items were measured on five-point Likert scale where "*0 = not at all true; 1 = rarely true; 2 = sometimes true; 3 = often true; 4 = always true*". The details of the 25-items military deployment practices can be seen in appendix A.

Section D **collected data on** ***cross-cultural intelligence and resilience*** (i.e., under the umbrella of the personal resources of military expatriates). The 20-item cross-cultural intelligence scale (consisting of metacognitive, cognitive, motivational, and behavioral dimensions) (Earley & Ang, 2003; Earley, 2002) was used to measure ***cross-cultural competence*** in this study. Prior studies have acknowledged this scale is a popular and appropriate measure of cross-cultural competence and was intended for any study population (see Bartel-Radic & Giannelloni, 2017; Abbe et al.,

2008). Sample items included*: "I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds; I know the cultural values and religious beliefs of other cultures; I am confident that I can socialize with locals in a culture that is unfamiliar to me; I vary the rate of my speaking when a cross-cultural situation requires it".* The items were measured on five-point Likert scale where "5 = strongly agree; 4 = agree; 3 = *neither agree nor disagree*; 2 = disagree; and 1 = strongly disagree". The details of these measures are in appendix A.

Resilience was measured using the short version of Connor-Davidson Resilience Scale (CD-RISC). It assesses the ability of people to bounce back following their encounter with stressful events, tragedy, or trauma. The 10-item scale, which is the short version of 25-item scale was developed and validated by Gras et al. (2019). The short-version was considered time-efficient and effective in large sample (Gras et al., 2019). Sample items included: "*I can deal with whatever comes; I tend to bounce back after illness or hardship; I am not easily discouraged by failure*". The items were measured on five-point Likert scale where "5 = strongly agree; 4 = agree; 3 = *neither agree nor disagree*; 2 = disagree; and 1 = strongly disagree". The details of these measures are in appendix A.

Control variables – As noted in Chapter Two, this study controlled for factors such as functional status, age, gender, education, and marital status. These control variables were dummy coded as follows: functional status (i.e. 1 = core military service including combat arms, and 0 = support services personnel including administration, and communications); age (1 = less than 40 – young adults; and 0 = 40 years and above – old adults); gender (1 = male; 0 = female); education (1 =

tertiary; 0 = non-tertiary), marital status (1 = married, and 0 = other marital status); military experience (1 = 1 – 5 years of service experience, 0 = 6 years and above). These factors were controlled for in this study because of their potential relationship with both mental health outcomes and its predictive effect on military deployment practices, resilience, and cross-cultural competence. Specifically, functional status is an important control variable because the exposure of an individual to risks and danger during military operations will differ remarkably depending on the part of the theatre of operations – in direct combat, administrative, administrative, communications etc. Highly kinetic fluid operations are more likely to witness and thereby engender greater trauma (Lee, 2019; Sampasa-Kanyinga et al., 2018; Lee et al., 2014) and stress than static or dormant operations. Relatedly, combat experience increases symptoms of PTSD, depression, and anxiety among Ghanaian post-deployed soldiers (Afful, 2017; Dami et al., 2018). Likewise, gender has been found to have moderated the influence of military-civilian transition on psychological well-being (Necku, 2015). Moreover, it is significant to control for the effect of the level of educational of military expatriates, who are exposed to stress and trauma during peacekeeping operations since one's level of education and knowledge may vary be susceptible to PTSD development (Sampasa-Kanyinga et al., 2018).

3.6.2 Interview Guide

The study used a semi-structured interview guide (see Appendix B) to collect the qualitative data. It had two main parts: demographic section collected data on military expatriates' age, education, gender, rank, division of services (Army/Navy/Air Force), and arms of service (combats arms, support services, administration, communications) units. The second part collected data on issues of posttraumatic mental health among military expatriates, deployment practices, and how

personal resources of resilience and cross-cultural competence moderate their perception of mental health problems following their encounters with major traumatic conditions and stressful events. Some items on the interview guide include: "*Please describe the nature and forms of traumatic events and stressful situations you are exposed to in international peacekeeping operations? How your exposure to traumatic events and stressful events did affect your mental health? What roles do the deployment practices (of selection, training and preparation, and military unit social support) play in helping you cope with traumatic events and stressful events*?"

3.7 Validity and Reliability

Validity refers to the "degree to which empirical evidence and theoretical rationales support the adequacy and appropriateness of interpretations and actions based on test scores" (Messick, 1989, p. 6). Reliability is concerned with the consistency and replicability of measures across time and contexts. It is also concerned with a measurement that is not error-ridden (Heale & Twycross, 2015; McMillan & Schumacher, 2006; Fraenkel & Wallen, 2003).

3.7.1 Quantitative Study

The study employed expert review to ensure face and content validity. The questionnaires were given to the supervisors of the theses, two researchers who are actively researching in areas of international management and international resource management, and two Generals (one also had several years as a lecturer at Military Academy) of the Ghana Armed Forces to assess the appropriateness of the measures. This helped to ensure face and content validity of the measures.

Besides, the researcher piloted the questionnaires using 50 respondents. These respondents completed the electronic version (via Google form) and shared their thoughts about the clarity and appropriateness of the questions. This resulted in minor wording of a few items including the spread of certain demographic variables such as the ranks of the military officers. Also, although most of the measures of the constructs are well-established scales, to ensure their validity in the Ghanaian context, the study used exploratory factor analyses and confirmatory factor analysis to assess the convergent and discriminant validity of the scales prior to the main analyses (see Chapter Four for the validity analyses). Moreover, the study used Cronbach's alpha and composite reliability to measure the reliability of the scales (see Chapter Four).

3.7.2 Qualitative Study

Like the quantitative method, the interview guide as given to the supervisors of the theses, two researchers who are actively researching in areas of international management and international human resource management, and two Generals (one also had several years as a lecturer at the Military Academy) of the Ghana Armed Forces to assess the appropriateness of the measures. This helped to ensure face and content validity of the measures. Furthermore, triangulation of the findings based on different perspectives by sampling participants across different service units and ranks within the Ghana Armed Forces helped to enhance its validity and reliability (see Noble & Smith, 2015; Long & Johnson, 2000). Indeed, Campbell (2020), Vogl (2019), and Carter (2014) indicated that "triangulation enhances our belief that the results are valid and not a methodological artifact". Through triangulation, the researcher can "map out or explain fully, the richness and complexity of human behaviour by studying it from more than one standpoint" (Bergelson, 2022; Campbell, 2020; Vogl, 2019; Cohen et al., 2000, p.112).

Moreover, the researcher carefully kept accurate records of the interview, and demonstrated a clear decision trail. He further ensured that the data was interpreted in a manner that is transparent and consistent (Bergelson, 2022; Karhulati, 2021; Aguinis, 2019; Silva, 2016) by incorporating rich and thick verbatim excerpts that accurately represented the views and perspectives of the respondents to give credence to the study's findings (Bergelson, 2022; Vogl, 2019; Noble & Smith, 2015). Moreover, validity and reliability were ensured via respondent validation. By this, the researcher invited the participants to give their comments on the transcribed interview to determine whether or not it reflected what they wanted to say, as well as whether or not they think the themes and concepts that are generated appropriately reflect the topic under investigation (Vogl, 2019; Noble & Smith, 2015; Long & Johnson, 2000).

3.8 Data Analyses

The data on military deployment, cross-cultural competence, resilience, and mental health outcomes were qualitatively and quantitatively analysed to achieve the research objectives. The following described the analyses of the quantitative and qualitative data in details.

3.8.1 Quantitative Analysis

The quantitative data were analysed using descriptive and inferential statistics. The structural equation modeling (SEM) was the main statistical tool for the quantitative data analysis. Descriptive statistics were used to analyse the demographic variables, and Pearson correlation to establish preliminary linear association between the study's variables. The main hypotheses were tested using SEM. The choice of SEM over the traditional multivariate techniques was based on its ability to address measurement error and the estimation of several multiple paths at the same

time. This ensures that the estimated coefficients are accurate (Hair, 2021; Tarka, 2018; Deng, 2018; Fan, 2016; Byrne, 2011). The study applied the IBM AMOS software for the SEM analyses while SPSS version 22.0 was used for the preliminary analyses.

3.8.2 Qualitative Analysis

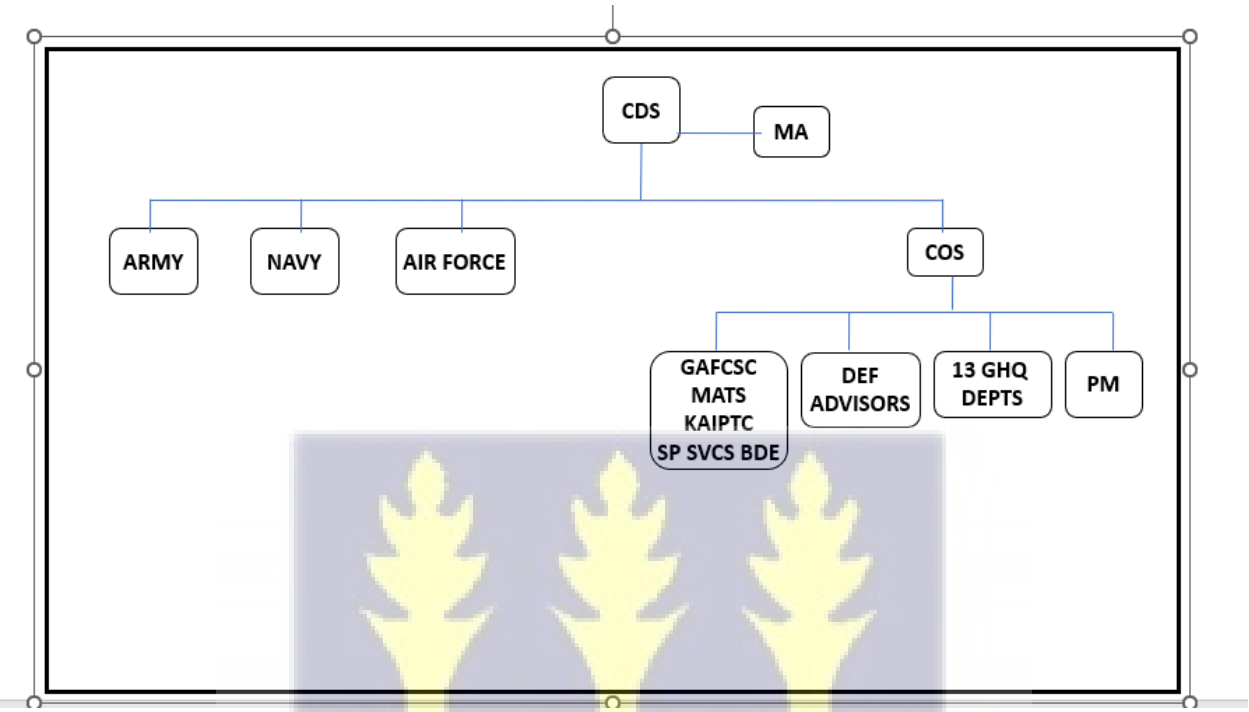
The qualitative data was analysed using thematic analysis. It is a technique for identifying, analysing, and reporting patterns and themes in a qualitative data (Braun, 2022; Lochmiller, 2021; Sundler, 2019; Roberts; 2019; Braun & Clark, 2006). The major benefit of this qualitative analytical tool is its flexibility as it allows the researcher to generate themes within the research data with no set specific guidelines (Braun, 2022; Roberts; 2019; Braun & Clarke, 2006).

3.9 Profile of Study Area (Ghana Armed Forces)

Peace and stability are important attributes necessary for the development of a country. In Ghana, Chapter 17, Article 210 (1) of the 1992 Constitution of Ghana states: "there shall be the Armed Forces of Ghana which shall consist of the Army, the Navy and the Air Force and such other services for which provision is made by Parliament". Article 210 (3) also requires that "the Armed Forces shall be equipped and maintained to perform their role of defence of Ghana, as well as such other functions for the development of Ghana as the President may determine". For effective command, control and communications, the GAF is structured into a general Headquarters (headed the CDS), the three Services (Army, Navy, and Air Force) each commanded by the Service Chief, designated as the Chief of the Army Staff, Chief of the Naval Staff and Chief of Air Staff, respectively. The various Services have the following subordinate designations: Army: Service HQ, Formations, Commands – South, Central and Northern - and Units; Navy: Service HQ,

Commands, Bases, Fleets and Ships; Air Force: Service, Bases, Squadrons and Wings. Below is the hierarchical structure of the GAF.

Figure 3.1: Organisation of the Ghana Armed Forces



**CDS – Chief of the Defence Staff; MA - Military Assistant; COS – Chief of Staff; GAFCSC – Ghana Armed Forces Command and Staff College; KAIPTC – Kofi Annan International Peacekeeping Training Centre; DEF ADVISORS- Defence Advisors; GHQ DEPTS – General Headquarters Departments; PM – Provost Marshal*

Source: Author's Construct (2021)

3.9.1 Sources of Policies

The main sources of GAF policies are the Constitution, Government legislation, charters and by-laws. Besides these, GAF policies are derived from and enriched by the following: Armed Forces Regulations (AFRs); Command and Staff Instructions and Procedures (CSIPs); the Queen's Regulations; Ministry of Defence Instructions (MDIs); Command Directives; and traditions and Conventions. The Constitution has empowered the GAF to formulate policies and regulations and

issue instructions for the efficient and smooth administration of the Service. As a result, most routine matters and such other policies that do not border on the form and substance of the Armed Forces are handled at the CDS level. Since the Ghana Armed Forces is a dynamic institution, operating in a dynamic environment, existing policies require periodic reviews to meet the challenges imposed by the changing conditions within the environment. It needs to be emphasized that policies are the end products of the inputs of a good number of people in the Service. Thus, policies affecting routine operations and administration could be issued in the form of instructions and directives to the Services, Departments, Formations, Commands, and units to achieve the vision and mission of the Service. Officers have a collective responsibility to contribute effectively towards the formulation of cogent policies that will help to advance and shape the cause of the GAF. The Ghana Armed Forces Command and Staff College (GAFCSC), Kofi Annan International Peace Keeping Training Centre (KAIPTC) and the Military Academy and Training Schools (MATS) exist to provide the necessary strategic, operational, and tactical level as well as command, staff, academic education, and logistics training for all personnel of the GAF.

3.9.2 Concepts, Philosophies and Roles of the GAF

The GAF adopts certain concepts and philosophies that underpin how it approaches operations. These include the fighting power based on the three main conceptual components - moral, physical and components, cohesion, and command. When the national interest or values of the Republic of Ghana are at risk and or in situations of conflict, the three (3) Services of the Armed Forces either independently or jointly, and other Security Agencies, will be expected to carry out operations with the purpose of supporting the overall national policy to resolve or terminate a conflict. In the process, the armed forces personnel can be expertly employed in one or a

combination of operations in aid/support of the civil authority/power; internal security operations; counter insurgency operations; peace keeping/enforcement operations; disaster management operations; operations in war and special operations. The conduct of any of these operations must result in an end state that maintains the integrity of the country. The approach adopted over time towards the conduct of any operations is aimed at achieving the desired result.

For the GAF to operate effectively and efficiently there is the need for synergy, cohesion, and the integration of the component parts. Cohesion is enhanced by good leadership, the uniformity of training and similarities in terms of doctrinal procedures, standard operating procedures, and internal security schemes.

The primary responsibilities of military institutions all over the world are similar, well known and documented. The primary mandate of the GAF is:

- Defend the state against external aggression and protect the territorial integrity and sovereignty of Ghana through surveillance and control of Ghana's land and maritime territory as well as airspace.
- Deter, by the show of force, any external aggression to Ghana's sovereignty.
- Provide intelligence and advice to government on matters of defence, which are of interest to Ghana's security.
- Assist the government in the maintenance of internal security.
- Protect Ghana's onshore and offshore strategic assets and resources.
- Coordinate national Search and Rescue (S & R) programmes.

- Support Government's foreign policy objectives and embark on non-combatant evacuation of Ghanaians in crisis-ridden countries in collaboration with Ministry of Foreign Affairs.
- Provide support to civil authority to combat crime, and thereby promote peace and security.
- Participate in the UN, AU and ECOWAS initiatives in the general maintenance of world peace and stability.

3.10 Ethical Considerations

All institutional and other research-related ethics were adhered to throughout the research process in order to come out with credible and reliable research output. Prior to the commencement of the data collection, the researcher applied to the Ethical Clearance Committee of the College of Humanities of the University of Ghana for ethical assessment of the proposal and the research instruments, and duly cleared to conduct this study (Appendices E and F). The researcher also applied to the Head of Department (HOD) for an Introductory Letter to the Ghana Armed Forces (Appendix D). Letters of introduction, from the Department of Organisation and Human Resource Management, University of Ghana Business School and a detailed methodology for the collection of the data (appendices G and H respectively) were sent to the Military High Command and targeted units of the Ghana Armed Forces for their consent to participate in the study. GAF approval for the research is at Appendix I. Respondents were encouraged to participate in the study but not coerced into doing so. Efforts were made to protect privacy and confidentiality of the participants by making sure no trace of information could be linked to any respondent and ensuring participants did not have any identification on the questionnaire.

3.11 Chapter Summary

In summary, this chapter discussed the methodology of this study by examining its research paradigm, research approach, and research design. It further presents the population, sample size and sampling procedure, and describes the data sources and collection procedure. Moreover, it discusses the research instruments, validity and reliability assessment, data analyses (of both quantitative analysis and qualitative analysis), profile of the study area (GAF) and ends with discussions on how the researcher ensured the study was conducted in an ethically consistent manner.

CHAPTER FOUR

QUANTITATIVE RESULTS

4.0 Introduction

This chapter presents the analyses of the quantitative study on military deployment practices, mental health of military expatriates and personal resources. After the successful retrieval of 434 questionnaires and keying of responses, 405 were found to be usable for analyses. The chapter begins by first presenting the demographic characteristics of respondents such as gender, age, marital status, educational level, religion, service category, rank category, distribution of military service experience, trade section, nature of predominant service, number of UN operations attended, duration of last mission, and when respondent returned from last operational area.

Various analyses were conducted using SPSS version 22.0 and AMOS version 21.0 statistical software, including determination and review of missing values, common method bias analysis, assessment of outliers and normality, exploratory factor analysis (EFA) of military deployment practices, measurement model assessments (confirmatory factor analysis for all constructs) comprising of the fitness of the measurement model, validity, and reliability of the measures. Also, results of multicollinearity are investigated. Moreover, a structural equation modelling and test of hypotheses comprising of the validation of the direct and moderated structural path models are discussed. This is followed by the summary of the quantitative results and ends with chapter summary.

4.1 Demographic Characteristics of Respondents

Table 4.1 below shows details of the 405 respondents who took part in the study.

Table 4.1: Demographic Characteristics of Respondents

Demographic Characteristics		Frequency	Percentage (%)
Sex	Male	327	80.74
	Female	77	19.01
	Missing	1	0.25
Age	20 – 29	52	12.84
	30 – 39	192	47.41
	40 – 49	143	35.31
	50 and above	18	4.44
Marital Status	Single	74	18.27
	Married	318	78.52
	Cohabiting	1	0.25
	Divorced	9	2.22
	Separated	2	0.49
	Widowed	1	0.25
Educational Level	Secondary or equivalent	213	52.59
	Diploma or equivalent	82	20.25
	Bachelor's degree	69	17.04
	Postgraduate	41	10.12
Religion	Christian	363	89.63
	Muslim	32	7.90
	African Traditional Religion	7	1.73
	Other	3	0.74
Service Category	Army	242	59.75
	Navy	79	19.51
	Air Force	81	20.0
	Civilian Employee	3	0.74
Rank Category	Very Senior Commissioned Officer (Colonels+)	15	3.70
	Senior Commissioned Officer (Lieutenant Colonel/Major)	35	8.64
	Junior Commissioned Officer (Captain/ Lieutenant)	28	6.91
	Senior Warrant Officer/ Warrant Officer	89	21.98
	Senior Non-commissioned Officer (Staff Sergeant/Sergeant)	140	34.57
	Non-commissioned Officer (Corporal/ Private)	98	24.20
Military Service Experience	6 to 10 yrs	76	18.77
	11 to 15 yrs	111	27.41
	16 to 20 yrs	111	27.41
	21+ yrs	68	16.79
	Core Military Duties	191	47.16

Trade Section	Administrative Duties	119	29.38
	Other Supporting Services	95	23.46
Nature of Predominant Mission	Commander	5	1.23
	Contingent Member	347	85.68
	Staff Officer	33	8.15
	Military Observer	19	4.69
	Missing	1	0.25
Duration of Last Mission	Up to 6 months	48	11.85
	7 to 12 months	313	77.28
	13 to 18 months	35	8.64
	19+	9	2.22
When Returned from Last Operational Area	1 to 12	97	23.95
	13 to 24	80	19.75
	25 to 36	67	16.54
	More than 36 months	161	39.75
Number of UN operations	One	116	28.64
	Two	69	17.04
	Three	71	17.53
	Four	69	17.04
	Five or More	80	19.75

Source: Field Survey (2021)

4.1.1 Gender of Respondents

From the results in Table 4.1, the gender distribution of the respondents shows that 327 (80.74%) were male and the remaining 77 (19.01%) were female and 1 respondent (0.25%) did not indicate his or her gender.

4.1.2 Age of Respondents

Most of the respondents were in the young adult category of 20 – 49 years, accounting for 387 (95.56%) of the respondents.

4.1.3 Marital Status of Respondents

As shown in Table 4.1 above, most of the respondents were married, accounting for 318 (78.52%) of the participants.

4.1.4 Educational Level of Respondents

All the participants had various forms of formal education with a near split between secondary qualification (52.59%) and tertiary/professional qualification (47.41%).

4.1.5 Religion of Respondents

The predominant religion of the respondents was Christianity (363 respondents; 89.63%) whilst Muslims and traditional religion practitioners constituted 7.90% (32 respondents) and 1.73% (7 respondents) respectively but 3 respondents (0.74%0 had other religious affiliations.

4.1.6 Service Category of Respondents

As shown in Table 4.1 above, many of the respondents were from the Army (59.75%) with participants from the Navy and Air Force almost evenly spread (19.51% and 20.09% respectively). The civilian employee response was negligible at 3 (0.74%).

4.1.7 Rank Category of Respondents

The rank category of respondents reflected the structure of the Ghana Armed Forces (pyramidal) with a large chunk of the respondents being at the lower rank and proportional minority senior rank personnel at the top.

4.1.8 Distribution of Military Service Experience of Respondents

The survey results reveal that a lot of the respondents had been in the Service between 11 – 20 years (222; 54.82%).

4.1.9 Trade Section of Respondents

Most of the respondents (191; 47.16%) were engaged in core military duties whiles the rest were personnel engaged in administrative and other support services.

4.1.10 Nature of Predominant Service of Respondents

As was expected, most (347; 85.68%) of the respondents were Contingent members, implying that they carry out most of the core operational and tactical core military and administrative duties. The least was Commanders (5; 1.23%) at various levels of command and control in the unit. Other respondents were either Staff Officers (33; 8.15%), or Military Observers (19; 4.69%).

4.1.11 Duration of Last Mission of Respondents

With respect to the duration of last mission, 313 respondents representing 77.28% had served between 7 to 12 months at one time or the other in a particular mission area; followed those who served in a particular mission area for up to 6 months (48; 11.85%), and between 13 to 18 months (35; 8.64%). The least group (9; 2.22%) were those who had served a little over nineteen (19) months.

4.1.12 When Respondent Returned from Last Operational Area

The highest number of respondents (39.75%) returned from the mission area more than 36 months ago, whilst the least (67; 16.54%) were those who had been back home between 25 to 36 months ago. Besides, 97 respondents representing 23.95% have been back home between 1 to 12 months, and 80 representing 19.75% returned from their last operational area 13 to 24 months ago.

4.1.13 Number of UN Operations

In terms of the number of UN operations served, it was evident that participants had served between 1 to 5 UN operations.

4.2 Missing Value Analysis

It is important for researchers to report the quantity of missing data and the method they employ to address it (Watkins, 2018). Accordingly, the study first explored the extent to which missing value is prevalent in the data. The results indicated that the highest reported missing value for the study's variables was 2.30% (see Appendix 4A). According to Bennett (2001), when a missing value constitutes 10% or less, their estimation would be acceptable. Moreover, the Little's chi-square must be insignificant with a significant Little's MCAR (missing complete at random) test value. This study's Little's MCAR test had a Chi-Square of 1756.274 with 0.50 as p-value, implying the test statistically insignificant at 5% level of significance. Thus, based on the percentage of missing value, coupled with the fulfillment of missing complete at random (MCAR) assumption, the researcher considered it to be appropriate to estimate the missing values.

While missing value estimation methods like the Listwise and Pairwise deletion of cases exists, in the default approach for handling missing values in most statistical software, they often result in significant reduction of the responses, and thus, considered to be less efficient (Baraldi & Enders, 2010). The expectation maximization method was used; the reason being that it has better ability in producing more reliable estimates (Baraldi & Enders, 2010; Gold & Bentler, 2000).

4.3 Common Method Bias (CMB) Analysis

Applying a rigorous methodology in research ensures accuracy, robustness, and trustworthy findings (Spector et al., 2019; Antonakis, 2017; Jakobsen & Jensen, 2015; Conway & Lance, 2010;

Ashkanasy, 2010). According to Jordan and Troth (2019), CMB occurs during research when all independent, dependent, mediating, and moderating variables are collected using the same method, resulting in errors in the relationships amongst the variables. In assessing the common method bias, the researcher used the latent Harman one-factor approach where all the latent constructs were loaded on a single factor (Podsakoff et al., 2003). The results showed that there is evidence of common method bias in the data as the latent one-factor was poorly fitted, which could infect the reliability and validity of the measures, leading to incorrect inferences or judgements and underestimating of corrected correlations (Podsakoff et al., 2012; Antonakis et al., 2010).

4.4 Assessment of Outliers and Normality

Presence of outliers and non-normally distributed may result in distortion of empirical results. Thus, the researcher investigated whether the data is compliant with the assumptions regarding absences of outliers and normal distribution. First, the study conducted an exploratory descriptive analysis to detect outliers resulting from potential data entry errors, which in most cases, is inevitable (Watkins, 2018). Secondly, the Mahalanobis (i.e., Mahalanobis d-squared) statistic was used to investigate presence of outliers and the results illustrated in Appendix 4B. This test measures distance between the observations or responses (Aguinis et al., 2013; Gao et al., 2008). It confirmed that there are no issues with outliers.

Thirdly, Mardia's multivariate kurtosis was used to measure multivariate normality which is a critical condition for using the maximum likelihood estimator in SEM. A multivariate normality is fulfilled if the value of the critical ratio is not more than 1.96 (Enomoto et al., 2020; Gao et. al., 2008). From the table, the coefficient of the multivariate kurtosis and its critical ratio are 3.39 and 1.86 respectively. This means that the data demonstrated multivariate normality. While multivariate normality assesses whether all the variables exhibit normality, univariate normality is

concerned with the normal distribution of each variable (Tabachnick & Fidell, 2007). Based on the results in Table 4.2, all the main variables demonstrated univariate normality as the absolute coefficient of the skewness and kurtosis values for each of the variables are within their required threshold of not more than 2.0 for skewness and 7.0 for kurtosis (Arevalilo, 2021; Xiang, 2020, McAlevey, 2018; Cain, 2017; Kim, 2013; Ryu, 2011).

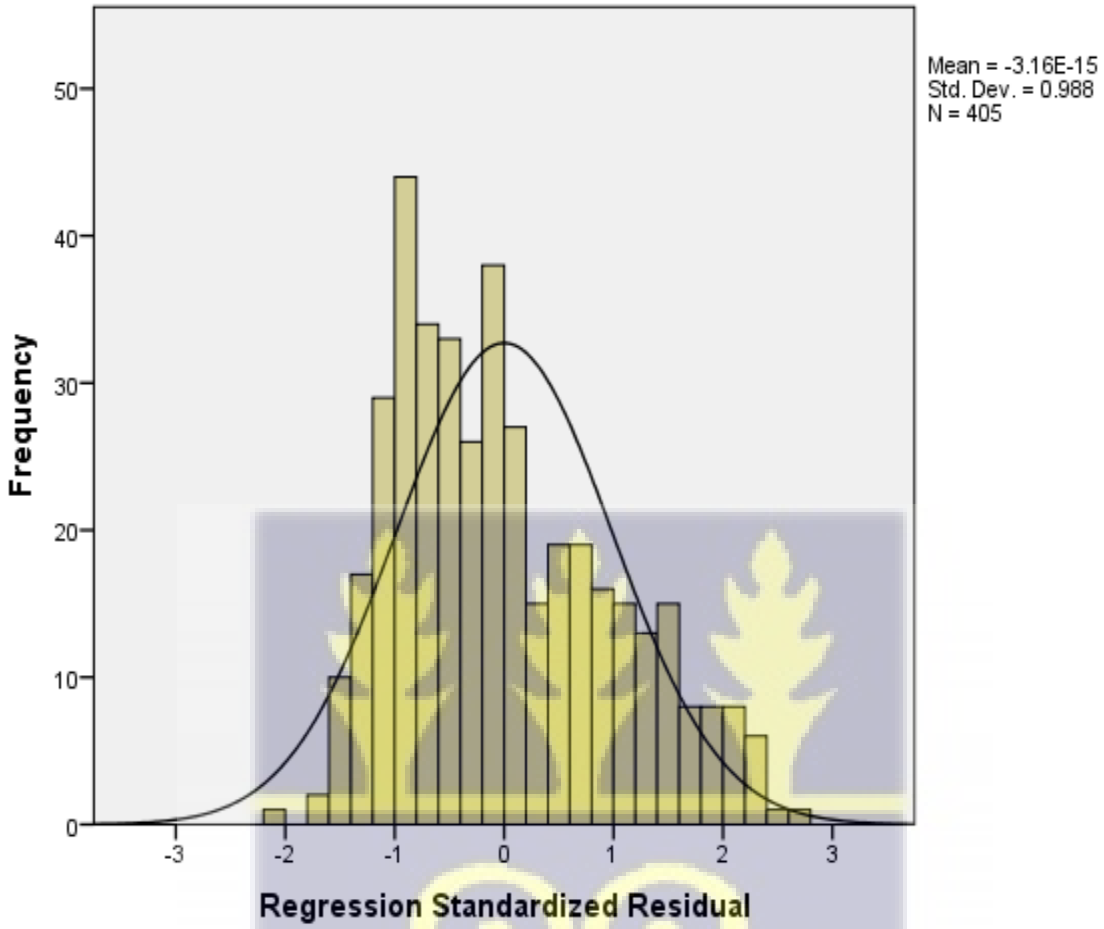
Table 4.2: Assessment of Normality

Variable	Skewness	C.R	Kurtosis	C.R
Post-traumatic stress disorder	0.46	3.78	-0.80	-3.28
Depression	0.65	5.32	-0.65	-2.65
Cross-cultural competence	-0.30	-2.47	0.61	2.50
Resilience	-0.85	-6.99	1.23	5.03
Unit support during deployment	-0.85	-7.00	1.17	4.78
Pre-deployment selection and training	-1.11	-9.14	1.46	6.01
Marital status	-1.39	-11.41	-0.07	-0.29
Number of UN operations served on	0.15	1.02	-1.41	-5.80
Functional status	0.11	0.94	-1.99	-8.16
Education	1.03	8.44	-0.95	-3.88
Age	-0.42	-3.44	-1.83	-7.50
Gender	-1.60	-13.15	0.56	2.30
Multivariate	-	-	**3.39**	**1.86**

Source: Field survey (2021)

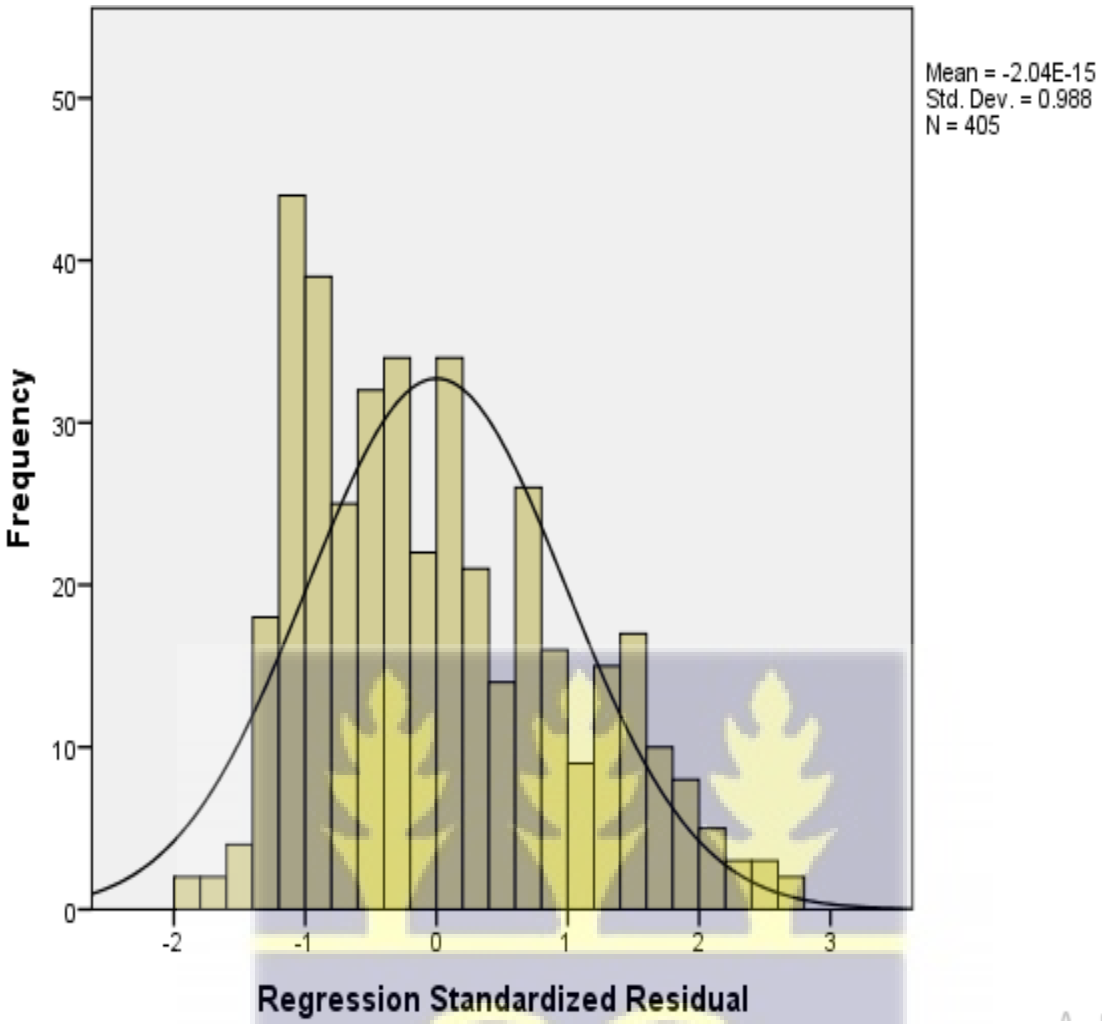
In addition to the statistical measures of normality, normality of the dependent variables is explored graphically, and results illustrated in Figure 4.1 – Figure 4.2. As shown in the figures, both indicators of the dependent variable (PTSD and depression) exhibited normal distribution.

Figure 4.1: Normal Curve for Depression



Source: Field survey (2021)

Figure 4.2: Normal Curve for Post-traumatic Stress Disorder



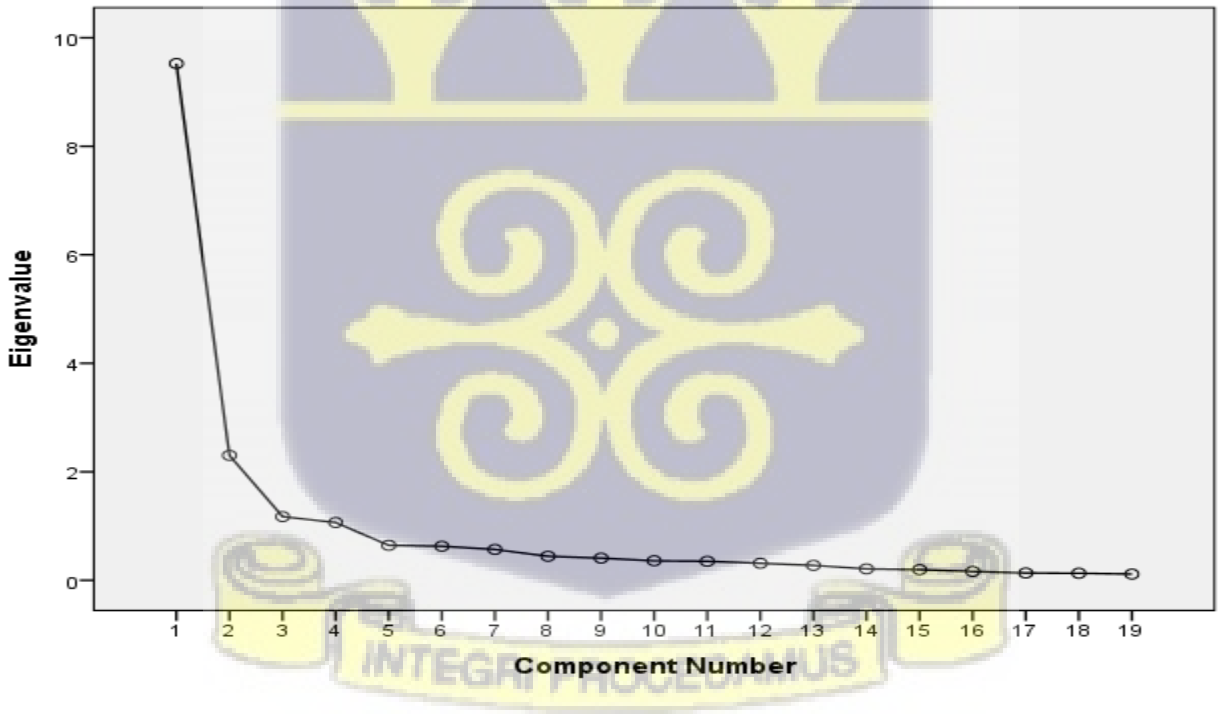
Source: Field survey (2021)

4.5 Exploratory Factor Analysis (EFA) - Military Deployment Practices

The scales used to measure cross-cultural competence, resilience, PTSD, and depression are well validated measures, but military deployment practices scale is less validated. Hence, the study performed an exploratory factor analysis (EFA) on the military deployment scale using the Varimax rotation method (Kaiser, 1958) due to its popularity in empirical research (Watkins, 2018). In line with best practices, the EFA was carried out using one half of the data to increase the robustness of the analysis (Fokkema & Greiff, 2017; Little, 2013; Kline, 2005). The factor

model was assessed using Kline's (2005) criteria: First, the eigenvalues (solutions) with values above 1 are preferred. Second, there should be low cross-loadings. Third, the loads must be significant and should be greater than 0.40 loadings to one latent factor per item (Watkin, 2018; Ku, 2010; Kline, 2005). Using eigenvalues greater than 1.0 (McDonald, 2022; Watkins, 2018; Navarro, 2014; Ku, 2010; Altinisik, 2004; Mukhtarov, 2002) and the Scree Plot (Iacobucci, 2022; Finch, 2020; Lui, 2019; Watkins, 2018) illustrated in Figure 4.3, the researcher was able to retain the required factors underlying the measures of military deployment practices. It suggests that acceptable number of factors can be detected by an "elbow" or distinct break (i.e., steep slope of larger eigenvalues ends, and smaller eigenvalues begins trailing off) in the slope of the Scree Plot (Watkins, 2018; Navarro, 2014; Ku, 2010;).

Figure 4.3: Scree Plot



Source: Field Survey (2021)

It shows that after deleting four (4) items and measuring military deployment practices, the rest loaded on four factors, namely: pre-deployment preparation and training; unit member support

during deployment; unit leader support during deployment; and selection. These factors and their associated items are represented in Table 4.3. These retained items explained more than half (73.03%) of variance in deployment practices. It also had a KMO Sampling Adequacy of 0.90 and a Bartlett's test of Sphericity (x^2) of 3262.95 which is significant at 1% (0.01) level.

Kaiser-Meyer-Olkin (KMO) values range from 0 to 1 (Correia, 2022; Khoza, 2021; Watson, 2017; Tabachnick & Fidell, 2013; Babaee, 2010; Kaiser, 1974), and scores of ≥ 0.70 are desirable (Lloret et al., 2017; Hoelzle & Meyer, 2013). According to Kaiser (1974), KMO scores in the "0.90s, marvelous; in the 0.80s, meritorious; in the 0.70s, middling; in the 0.60s, mediocre; in the 0.50s, miserable; below 0.50, unacceptable" (p. 35). Similarly, Bartlett's test of sphericity "estimates the degree to which the inter-correlation matrix produced is an identity matrix" (Watson, 2017, p.33). In addition, 50% or more is generally considered to be adequate (Correia, 2022; Khoza, 2021; Watson, 2017; Tabachnick & Fidell, 2001). Together, EFA model fit indices showed that the sample was adequate for EFA.

Table 4.3: Exploratory Factor Analysis for Military Deployment Practices

Measurement Items	Pre-deployment Preparation and Training	Unit Member Support during Deployment	Unit Leader Support during Deployment	Selection
MD8: The training I received prepared me to deal with the deployment climate	0.84			
MD7: The training I received made me feel confident in my ability to use my equipment	0.82			
MD6: I had all the supplies and equipment needed to get my job done.	0.79			
MD9: I received enough training to protect myself in case of an attack.	0.74			
MD10: I received appropriate training for the nature of the deployment I experienced	0.73			
MD11: The training I received made me feel confident in my ability to perform tasks assigned to me during deployment.	0.72			
MD12: The training I received taught me everything I needed to know for deployment.	0.71			

MD23: The leaders of my unit were interested in my personal welfare		0.79		
MD22: I could go to unit leaders for help if I had a problem or concern		0.78		
MD19: My unit leader(s) were interested in what I thought and how I felt about things during my most recent deployment.		0.77		
MD21: My service was appreciated by the leaders in my unit		0.76		
MD24: I felt valued by the leaders of my unit		0.73		
MD20: I felt like my efforts really counted to the leaders in my unit		0.70		
MD13: My unit was like family to me during my most recent deployment			0.77	
MD14: People in my unit were trustworthy during my most recent deployment			0.76	
MD16:			0.75	
MD15: My fellow unit members appreciated my efforts in the deployment			0.74	
MD2: I was medically and dentally examined and deemed fit for deployment				0.84
MD1: I was given sufficient notification of the intended deployment.				0.73
Cumulative Variance Extracted (CVE):			74.03%	
Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy			0.90	
Bartlett's Test of Sphericity			3262.95***	

Source: Field Survey (2021)

4.6 Measurement Model Assessment (Confirmatory Factor Analysis)

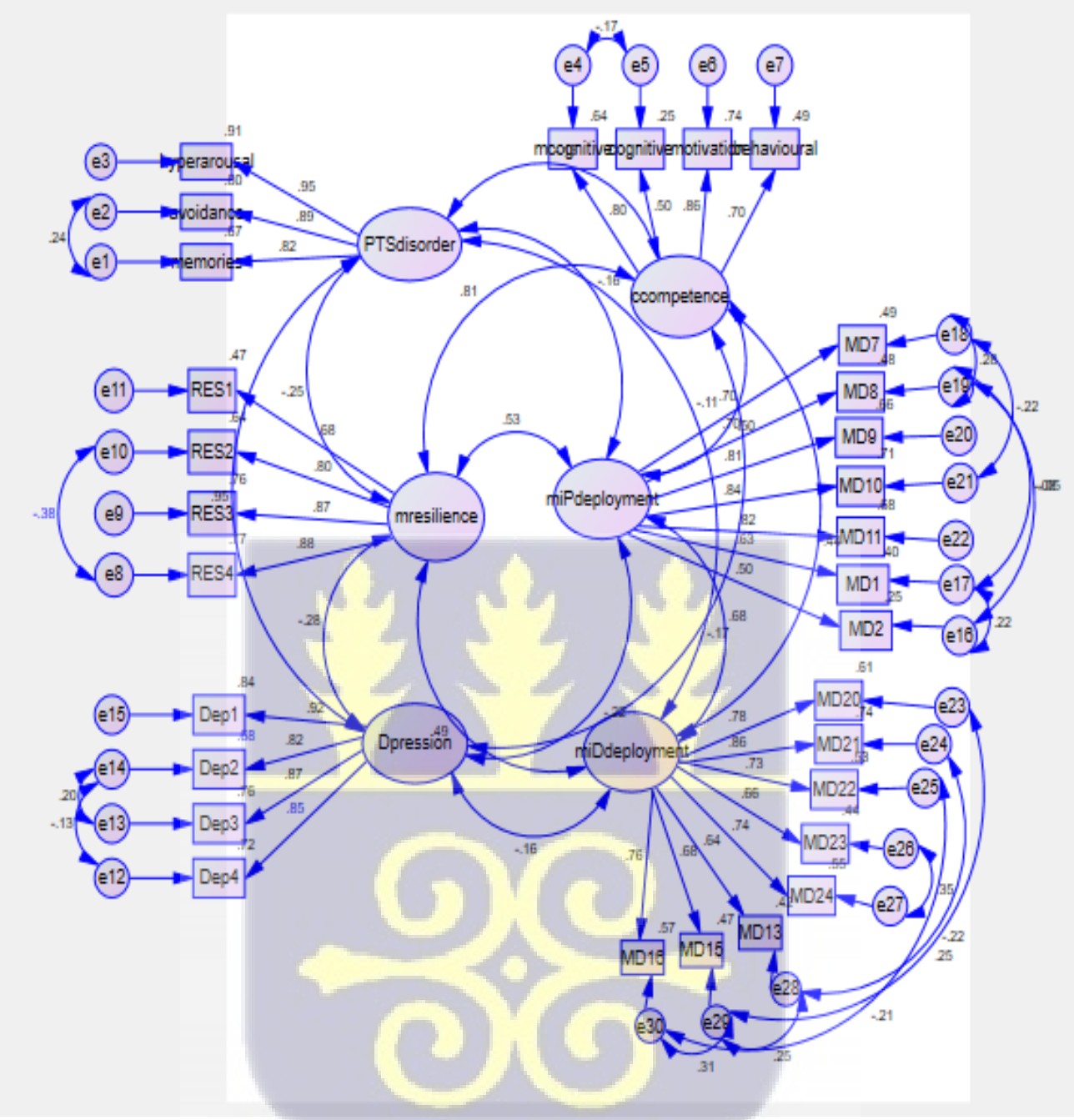
4.6.1 Fitness of the Measurement Model

Due to the total number of measurement items relative to the sample size, the researcher parceled the measurement variables for depression, posttraumatic stress disorder, resilience, and cross-cultural competence. The parceling were created consistent with prior studies and recommended procedures in the confirmatory factor analysis (Bakker et al., 2010; Little et al., 2002). Four (4) item parcels were each created for cross-cultural competence; depression; and resilience. Also, three (3) item parcels were created to reflect post-traumatic stress disorder.

The study conducted various alternative models, specifically, six to eight-factor model and assessed their acceptability, using key model fit indices: Root Mean Square Error of

Approximation (RMSEA), Comparative Fit Index (CFI), Goodness-of-Fit Index (GFI) and others (Stone, 2021; Shi, 2019; Fan 2016; Shanmugam, 2015; Beran, 2010; Kline, 2005). The researcher first assessed the eight-factor model (consisting of the four dimensions of deployment practices; the two dimensions of mental health; resilience, and cross-cultural competence). Second, a seven-factor model was tested (where the two during deployment practices – unit members' social support and unit leader social support were loaded on one factor). Third and finally, it tested a six-factor model (where it loaded selection, and training on one factor; as well as treated both unit members' social support, and unit leader social support as a single factor). The model fit indices for these models are shown in Table 4.4. While all the models generated exhibited acceptable levels of validation, the six-factor model better fitted the data (see Figure 4.4). Hence, consistent with best practice, the study adopted the six-factor model as the final validated model.

Figure 4.4: Confirmatory Factor Analyses of the Study's Variables Model



Source: Field Survey (2021)

This model had a CMIN/df ($\chi 2$/df) value of 2.11, indicating good fit because it is below 3 (Savalei, 2021; Shi, 2019; Xia, 2019; Fan, 2016) and an RMSEA of 0.052 is acceptable (see Savalei, 2021; Shi, 2019; Xia, 2019; Fan, 2016; Hair et al., 2010). Also, the model had a CFI of 0.951 and TLI

value of 0.943 respectively, and both exceeded the minimum threshold of 0.90 for acceptability (Savalei, 2021; Shi, 2019; Xia, 2019; Fan, 2016; Hair et al., 2010). Finally, while GFI value of 0.881 fell below the minimum threshold of 0.90 marginally, PLCOSE was acceptable. Together, the measurement model has demonstrated adequate level acceptability.

Table 4.4: Model Fit Indices for Alternative Factor-Models

Model Fit Indices	Benchmark and Key References	Eight-factor	Seven-factor	Six-factor
CMIN/df ($\chi 2$/df)	≤ 3 good; < 5 sometimes permissible (Hu & Bentler, 1999).	2.181	2.238	2.11
CFI	> 0.95 great; > 0.90 traditional; > 0.80 sometimes permissible (Hu & Bentler, 1999).	0.947	0.944	0.951
ITL		0.939	0.936	0.943
GFI	≥ 0.90 (Etezadi-Amoli & Farhoomand, 1996)	0.879	0.876	0.881
Root Mean Square Error of Approximation (RMSEA)	< 0.05 good; 0.05-0.10; moderate; > 0.10 bad (Hu & Bentler, 1999).	0.054	0.055	0.052
PCLOSE		0.092	0.038	0.219

Source: Field Survey (2021)

4.6.2 Validity of the Measures

The following present analyses (convergent and divergent validity) and reliability analyses of the constructs of the study: pre-deployment selection and training, unit support during deployment (i.e., in-theatre); resilience, cross-cultural competence, and the two measures of mental health (i.e.,

post-traumatic stress disorder, and depression). First, the standardized factor loadings (SFL) and the average variance extracted (AVE) were employed to investigate the extent to which convergent validity is met. Convergent validity is present where SFL is 0.5 and greater or ideally above 0.7 (Kim, 2020; Knekta, 2019; Watkins, 2018; Fan, 2016; Hair et al., 2010). Table 4.5 showed the results. From the table, the highest SFL was 0.96 and the least was 0.50, and they are all statistically significant 1% level. Thus, the latent constructs (measurement indicators) demonstrated acceptable level of convergence validity based on the SFL criteria.

In addition, the results in Table 4.5 shows that the AVE values of the observed variables range from 0.53 to 0.79: post-traumatic stress disorder (0.79); cross-cultural competence (0.53); resilience (0.66); depression (0.75); re-deployment selection and training practices (0.53); and during deployment support (0.54). This suggests that the measures also showed acceptable level of convergent validity based on their AVE. This is because an AVE value that is greater than 0.50 implies convergent validity exists (Shah, 2019; Postek, 2015; Peddie, 2014; Hair et al., 2010).

Table 4.5: Confirmatory Factor Analyses, Validity and Reliability Results

Latent Constructs	Observed variables	SFL	t-value	AVE	C.R	Cronbach's α
Post-traumatic stress disorder	Intrusive memories	0.82	Fixed	0.79	0.91	0.93
	Avoidance	0.89***	25.82			
	Hyperarousal	0.96***	24.92			
Cross-cultural competence	Metacognitive	0.80	Fixed	0.53	0.86	0.80
	Cognitive	0.50***	9.15			
	Motivation	0.86***	17.96			
	Behavioural	0.70***	14.42			
Resilience	RES4	0.88	Fixed	0.66	0.93	0.87
	RES3	0.87***	22.44			
	RES2	0.80***	17.06			
	RES1	0.68***	15.61			
	Dep4	0.85	Fixed			

Depression	Dep3	0.87***	23.06	0.75	0.89	0.93
	Dep2	0.82***	19.65			
	Dep1	0.92***	25.50			
Pre-deployment practices	MD7	0.70	Fixed	0.53	0.89	0.87
	MD8	0.70***	15.11			
	MD9	0.81***	14.75			
	MD10	0.85***	14.12			
	MD11	0.82***	14.86			
	MD1	0.63***	11.79			
	MD2	0.50***	9.29			
During deployment practices	MD23	0.66***	13.83	0.54	0.91	0.91
	MD24	0.74***	15.84			
	MD13	0.65***	13.13			
	MD16	0.76***	16.04			
	MD20	0.78	Fixed			
	MD21	0.86***	18.86			
	MD15	0.69***	16.24			
	MD22	0.73***	15.33			

**** SFL (Standardised factor loading) is significant at 0.1% (0.001); α = Cronbach's Alpha, CR = Composite reliability and AVE = Average Variance Extracted*

Source: Field Survey (2021)

Furthermore, the researcher assessed the discriminant validity of the measurement items of the study's constructs. Discriminant validity is a "test to ensure there is no significant variance among different variables that could have the same reason. Discriminant validity "… differentiates between one construct and another in the same mode" (Ronkko, 2022; Afthanorhan, 2021; Henseler, 2015; Ghadi et al., p.140). The Fornell-Lacker's discriminant validity test in SEM is applied to assess discriminant validity. With this test, if the square root of AVE is greater than the squared construct correlations, then the measures demonstrate discriminant validity (Afthanorhan, 2021; Henseler, 2015; Fornell & Larcker, 1981).

The result of the Fornell-Lacker's discriminant validity test is shown in Table 4.6. From the table, the values of all the square root of AVE are more than the squared construct correlations in their respective rows and columns. This indicates that the constructs demonstrated sufficient discriminant validity.

Table 4.6: Fornell-Lacker Procedure for Discriminant Validity Analysis

Variables	1	2	3	4	5	6
1. PTSD	**0.89**					
2. Depression	0.76	**0.87**				
3. Pre-deployment	0.03	0.05	**0.73**			
4. During deployment	0.01	0.02	0.40	**0.73**		
5. Cross-cultural competence	0.01	0.01	0.18	0.14	**0.73**	
6. Resilience	0.05	0.07	0.26	0.19	0.46	**0.81**

NB: Bold elements are the squared roots of AVE and other elements represent the squared correlation

Source: Field Survey (2021)

4.6.3 Reliability of the Measures

The study used the Cronbach's alpha (α) and Composite Reliability (CR) to assess the extent to which the measurement items of the study's variables are reliable. The results of the reliability analyses are shown in Table 4.5. It is important to note that generally, while Cronbach's alpha and composite reliability value of 0.70 is desirable, 0.60 is acceptable (Kang, 2021; Kim, 2020; Deng, 2018; Furlan, 2018; Fan, 2016; Stanley, 2016; Tighe, 2010; Kano, 2003; Hair et al., 2010; Fornell & Larcker, 1981). From the results, Cronbach's alpha values for post-traumatic stress disorder (α = 0.93); cross-cultural competence (α = 0.80); resilience (α = 0.87); depression (α = 0.93); re-

deployment selection and training practices (α = 0.87); and during deployment support (α = 0.91) were all greater than 0.70. This suggests that the scales demonstrated acceptable level of reliability based on Cronbach's alpha values (see Furlan, 2018; Fan, 2016; Stanley, 2016; Tighe, 2010; Kano, 2003; Hair et al., 2010; Fornell & Larcker, 1981).

Furthermore, the results of the composite reliability in Table 4.5 showed that post-traumatic stress disorder has a score of 0.91; cross-cultural competence had 0.86; resilience had 0.93 and depression had 0.89. Also, pre-deployment selection and training practices and during deployment support had composite reliability values of 0.89 and 0.91 respectively. Since values are greater than 0.70, it implies that the scales demonstrated acceptable level internal consistency or reliability (Furlan, 2018; Fan, 2016; Stanley, 2016; Tighe, 2010; Kano, 2003; Hair et al., 2010; Fornell & Larcker, 1981).

4.7 Descriptive Analyses

Table 4.7 below shows the results of the descriptive analyses of the study's variables. From the table, pre-deployment selection and training had a mean score of 4.07 with a standard deviation of 0.71. Likewise, unit support during deployment (i.e., when in theater) had a mean score of 3.88 with a standard deviation of 0.73. Furthermore, cross-cultural competence had an average score of 3.67 with a standard deviation of 0.60, and resilience had an average score of 3.97 with a standard deviation 0.68.

In addition, average level of post-traumatic stress disorder was 1.35 with a standard deviation of 1.03. Similarly, depression had a mean score of 1.22 with a standard deviation of 1.10. Also, respondents' average participation in UN peacekeeping operations was 2.82 with a standard

deviation 1.50 (signifying significant variations among the respondents with respect to their involvement in UN peacekeeping activities).

Table 4.7: Descriptive Analyses

Variables	N	Minimum	Maximum	Mean	S.D
Pre-deployment Practices	405	1.30	5.00	4.07	0.71
During deployment Practices	405	1.00	5.00	3.88	0.73
Cross-cultural Competence	405	1.46	5.00	3.67	0.60
Resilience	405	1.00	5.00	3.97	0.68
Gender	405	0.00	1.00	0.81	0.39
Age	405	0.00	1.00	0.60	0.49
Education	405	0.00	1.00	0.27	0.45
Marital status	405	0.00	1.00	0.79	0.41
Functional status	405	0.00	1.00	0.47	0.50
Number of UN operations	405	1.00	5.00	2.82	1.50

Source: Field Survey (2021)

4.8 Correlation Analysis

The study assessed the correlation or relationship between the variables using the Pearson Correlation and the results illustrated in Table 4.9. As shown in the table, post-traumatic stress disorder is significantly and positively related with depression ($r = 0.87$, $p < 0.01$), implying that an increase in post-traumatic stress disorder will be associated with higher level of depression.

However, post-traumatic stress disorder is negatively and significantly correlated with pre-deployment selection and training ($r = -0.18$, $p < 0.01$), unit support during deployment ($r = -0.12$, $p < 0.05$). It similarly showed a significant negative correlation with cross-cultural competence (r

= -0.12, $p < 0.05$), and resilience ($r = -0.23$, $p < 0.01$). This indicates that improvement in pre-deployment selection and training, unit support during deployment, cross-cultural competence, and resilience will be associated with low level of post-traumatic stress disorder among troops on peacekeeping assignments.

Similarly, depression had significant negative relationships with pre-deployment selection and training ($r = -0.22$, $p < 0.01$), unit support during deployment ($r = -0.15$, $p < 0.01$), cross-cultural competence ($r = -0.11$, $p < 0.05$), and resilience ($r = -0.26$, $p < 0.01$). Thus, increases in pre-deployment selection and training, unit support during deployment, cross-cultural competence, and resilience will be associated with low level of depression among military on peacekeeping mission in international arena.

There are also significant positive correlations between the main independent variables, with the correlation between resilience and cross-cultural competence recording the highest level of correlation coefficient between any two independent variables. Moreover, the control variables generally had statistically strong relationships with at least one of the study's main variables (either the independent variables or the predictors). Overall, the correlations did not raise major multicollinearity problems, and provided preliminary insights as to the nature of the relationships between the mental health measures (depression, post-traumatic stress disorder), deployment practices (pre-deployment selection and training, and unit support during deployment), as well as resilience and cross-cultural intelligence.

Table 4.8: Correlation Analyses

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. PTSD	1.00											
2. Depression	0.87***	1.00										
3. Pre-deployment	-0.18***	-0.22***	1.00									
4. During deployment	-0.12**	-0.15***	0.63***	1.00								
5. CC competence	-0.12**	-0.11**	0.42***	0.37***	1.00							
6. Resilience	-0.23***	-0.26***	0.51***	0.44***	0.68***	1.00						
7. Gender	0.02	0.004	0.05	0.03	0.09	0.06	1.00					
8. Age	-0.08*	-0.04	0.002	-0.06	-0.03	0.04	-0.05	1.00				
9. Education	-0.05	-0.07	0.07	0.13**	0.06	0.06	-0.05	-0.12**	1.00			
10.Marital status	0.003	-0.01	0.11**	0.09*	0.03	0.05	0.12**	-0.29***	0.02	1.00		
11.Functional status	-0.11**	-0.05	-0.03	-0.09*	0.03	0.00	0.23***	0.10**	-0.02	-0.05	1.00	
12. UN operations	0.08	0.07	0.04	0.03	0.01	-0.03	0.16***	-0.52***	0.02	0.26***	0.003	1.00

****, **, * Correlation is significant at 1% (0.01); 5% (0.05) and 10% (0.10) respectively ; Pre-deployment = Pre-deployment selection and training; During deployment = Unit support during deployment; CC Competence = cross-cultural competence.*
Source: Field Survey (2021)

4.9 Multicollinearity Results

The study assessed multicollinearity by employing the variance inflation factor (VIF) using post-traumatic stress disorder. The results are shown in Table 4.9. As shown in the table, resilience had the highest VIF value of 2.15 with education recording the least value of 1.04. Since the highest VIF of 2.15 is within the required limit of not greater than 10, it is concluded that multicollinearity is not an issue.

Table 4.9: Multicollinearity Analyses

Variables	Variance Inflation Factor
Pre-deployment practices	1.90
In-theatre deployment practices	1.75
Cross-cultural competence	1.92
Resilience	2.15
Gender	1.10
Age	1.49
Education	1.04
Marital status	1.14
Functional status	1.08
Number of UN operations	1.44

Source: Field Survey (2021)

4.10 Structural Equation Modelling Results and Test of Hypothesis

This section presents the direct and moderated SEM and use results of well validated models to test the hypotheses of the study. The following presents the details of the validation of the models and assessment of the hypothesised relationships.

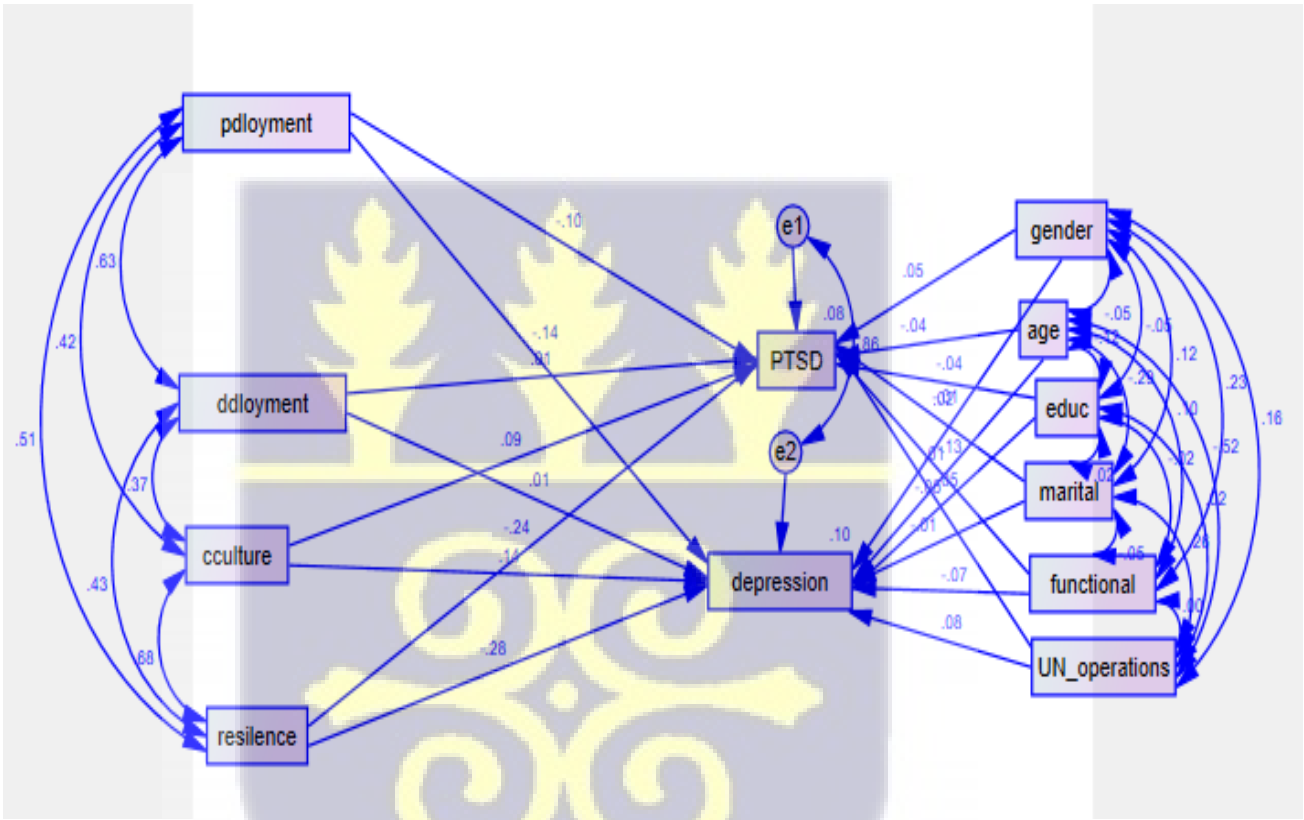
4.10.1 Validation of Direct and Moderated Structural Path Models

In line with recommendations by prior researchers (e.g. Kang, 2021; Hair, 2021; Tarka, 2018; Lin, 2017; Fan, 2016; Christ, 2014; Nunkoo, 2012; Cortina et al., 2001) and consistent with Bakker et al. (2010), the researcher estimated a moderated structural equation modelling (MSEM), and each hypothesized model tested included three independent variables (one of the deployment practices; one of the moderating variables, and their interactive terms), with the two dependent measures of mental health (PTSD, and depression). In all, the study tested five (5) models (one direct model and four moderated models; see Figures 4.5- 4.9. In addition, the significant interactive or moderating effect is plotted (Tarka, 2018; Lin, 2017; Fan, 2016; Bakker et al., 2010; Aiken & West, 1999). The suitability of the models is assessed or validated using key model fit indices: RMSEA, CFI, GFI, PCLOSE, and others (Tarka, 2018; Lin, 2017; Fan, 2016; Kline, 2005). The following presents each of the models with an assessment of their validated model fit indices.

The first model as depicted in Figure 4.5 shows the direct path structural model. It shows the relationship between the main independent variables: pre-deployment selection and training (i.e., pdloyment), unit support during deployment (i.e., ddloyment), cross-cultural competence (i.e., cculture), resilience; and the two dependent variables (post-traumatic stress disorder – PTSD; and depression). Also, the study's control variables (age, gender, education, marital status, functional status, and participation in UN peacekeeping operations) are included. This model had a CMIN/df ($\chi 2$/df) value of 1.138, indicating good fit because it is below 3 (Hu and Bentler, 1999) and its RMSEA of 0.018 is acceptable (see Fan, 2016; Hair et al., 2010), as well as the PCLOSE's value of 0.975. Also, the model had a CFI of 0.998, GFI of 0.989,

and TLI value of 0.993 respectively, and both exceeded the minimum threshold of 0.90 for acceptability (Tarka, 2018; Lin, 2017; Fan, 2016). Thus, the model has demonstrated adequate level acceptability.

Figure 4.5: Direct Structural Path Model of Deployment Practices, Resilience and Cross-Cultural Competence on Mental Health Outcomes

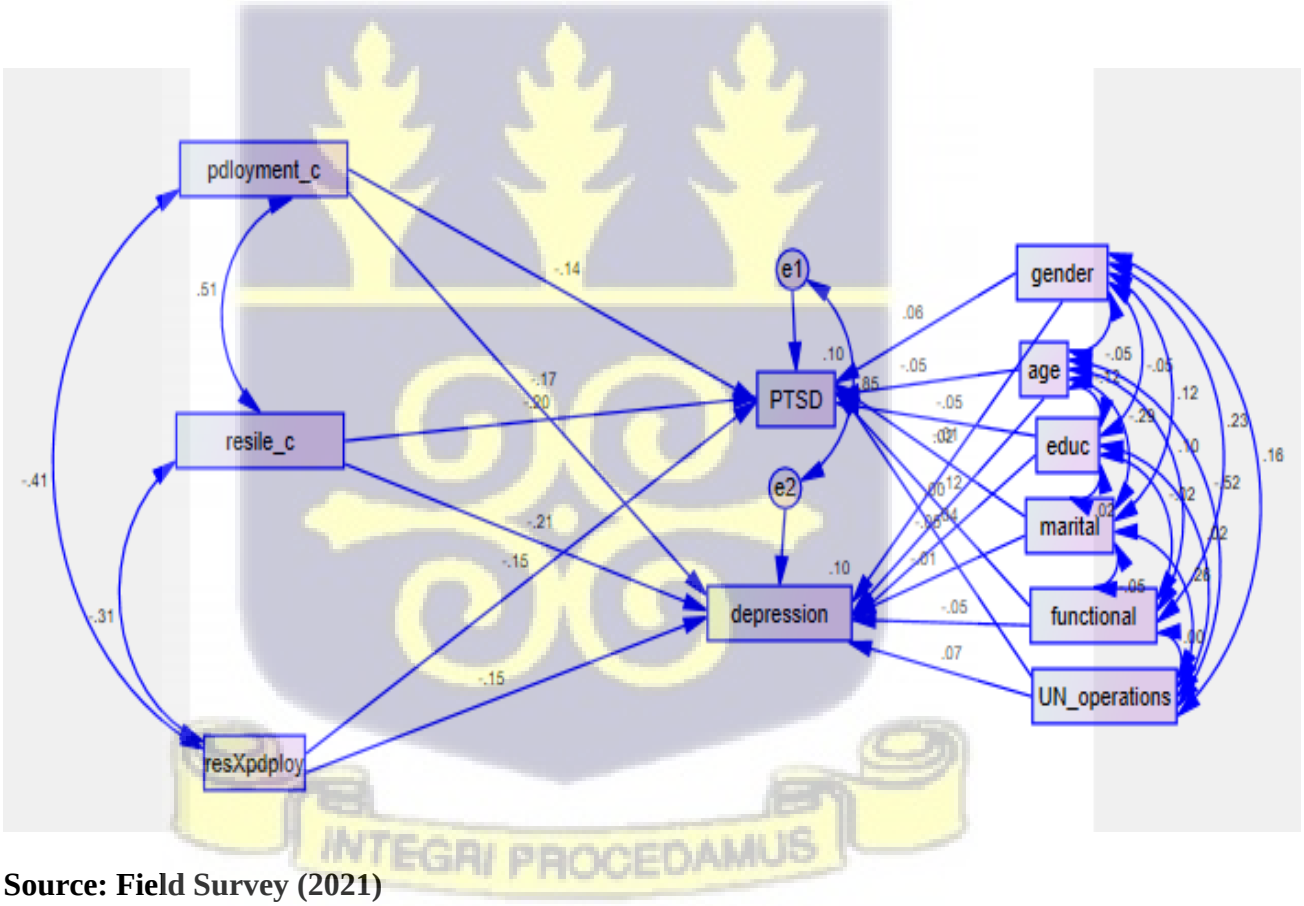


Source: Field Survey (2021)

The second model as illustrated in Figure 4.6 below showed a moderated structural model comprising of individual direct influence of both pre-deployment selection and training, and cross-cultural competence, as well as their interactive term (i.e., cultureXpdploy) on the two dependent variables - post-traumatic stress disorder and depression) while assessing the role

of the control variables. The model as depicted in Figure 4.6 had a CMIN/df ($\chi 2$/df) value of 0.98, indicating good fit because it is below 3 (Fan, 2016; Hu & Bentler, 1999) and its RMSEA of 0.00 is acceptable (see Fan, 2016; Hair et al., 2010; Hu & Bentler, 1999), as well as the PCLOSE's value of 0.981. Also, the model had a CFI of 1.00, GFI of 0.992, and TLI value of 1.00 respectively, and both exceeded the minimum threshold of 0.90 for acceptability (Fan, 2016; Hair et al., 2010; Hu & Bentler, 1999; Etezadi-Amoli & Farhoomand, 1996). Thus, the model has demonstrated adequate level acceptability.

Figure 4.6: Direct and Interactive effects of Pre-deployment Selection and Training, and Cross-cultural Competence on Mental health outcomes

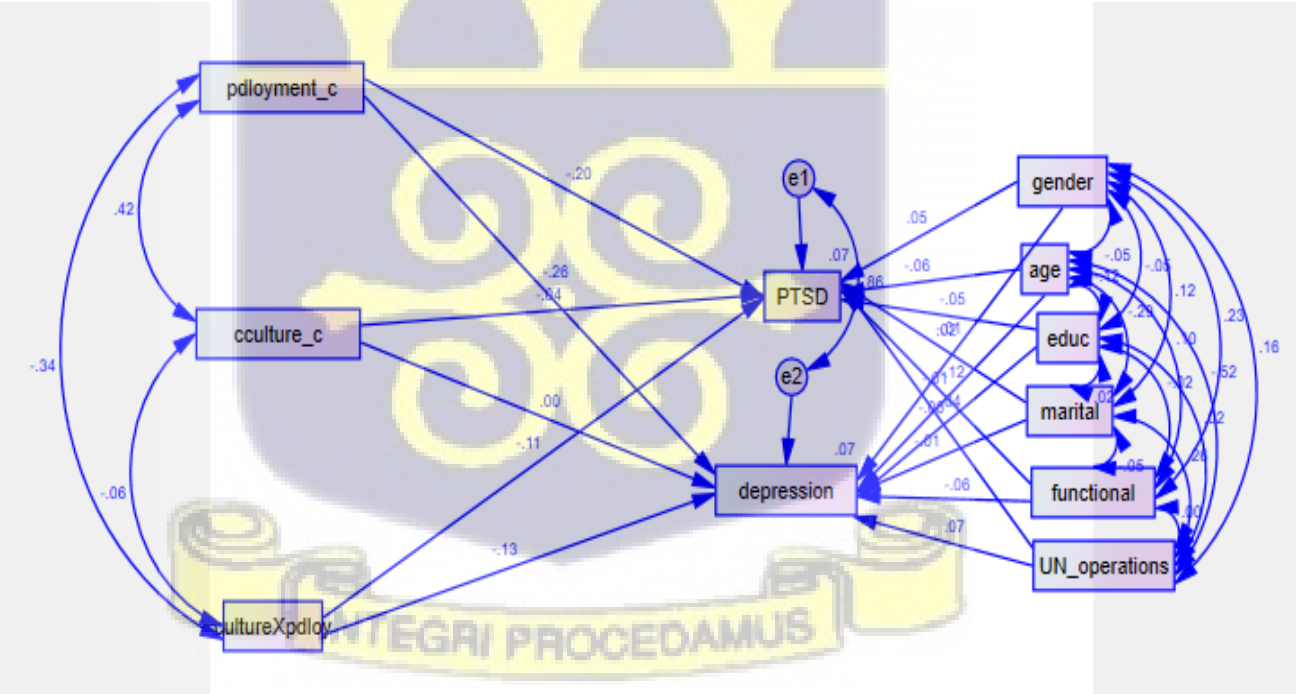


Source: Field Survey (2021)

The third model as shown in Figure 4.7 depicts a moderated structural model. It examines the individual direct influence of both pre-deployment and resilience (i.e., resile_c), as well as

their interactive term (resXpdploy) on the two dependent variables - post-traumatic stress disorder and depression). Besides, the control variables were also assessed as seen in the diagram (i.e., Figure 4.7). The assessment of the suitability of this model using the outlined model fit indices showed that it had a CMIN/df ($\chi 2$/df) value of 0.828, indicating good fit because it is below 3 (Hu and Bentler, 1999) and its RMSEA of 0.00 is acceptable (see Hu & Bentler, 1999; Hair et al., 2010, as well as the PCLOSE's value of 0.994. Also, the model had a CFI of 1.00, GFI of 0.993, and TLI value of 1.00 respectively, and both exceeded the minimum threshold of 0.90 for acceptability (Fan, 2016; Hair et al., 2010; Hu & Bentler, 1999; Etezadi-Amoli & Farhoomand, 1996). Thus, the model has demonstrated adequate level acceptability.

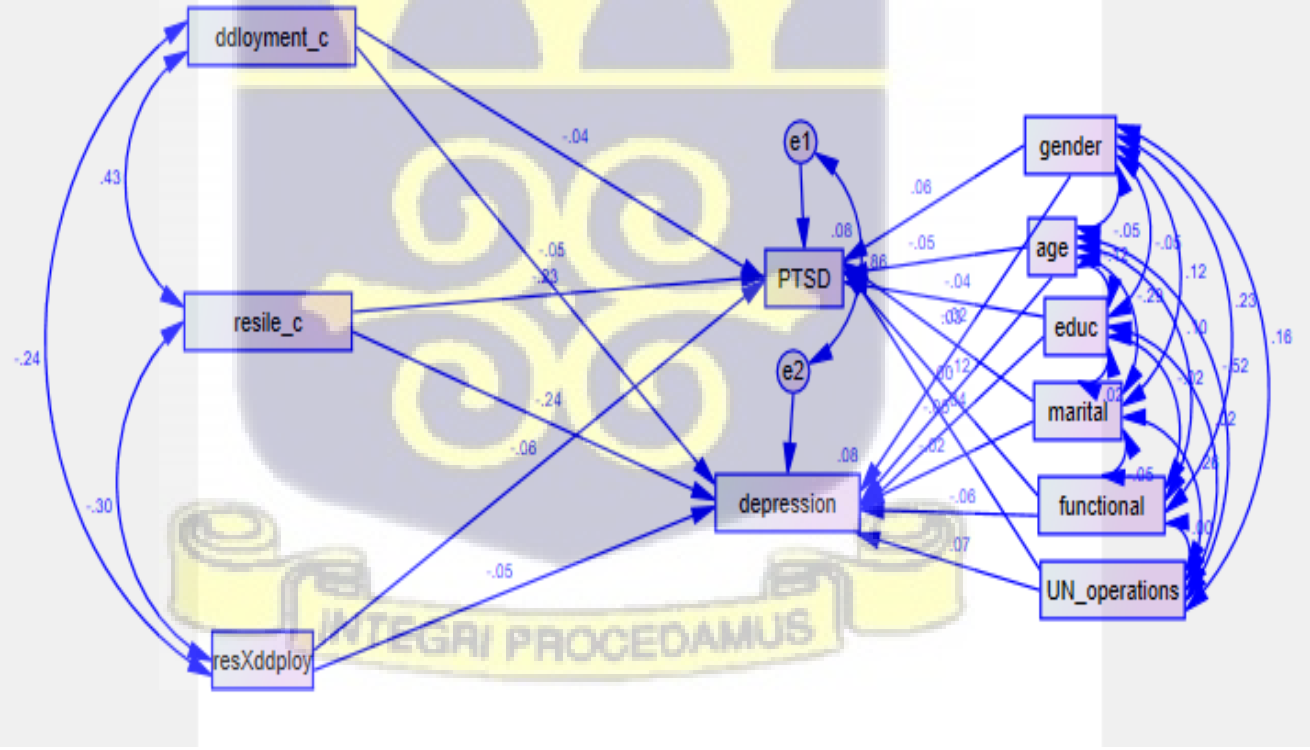
Figure 4.7: Direct and Interactive effects of Pre-deployment Selection and Training, and Resilience on Mental health outcomes



Source: Field Survey (2021)

The fourth model as shown in Figure 4.8 tested direct and interactive effects of unit support during deployment, and cross-cultural competence on mental health outcomes (post-traumatic stress disorder and depression) while accounting for the role of the study's control variables. Its CMIN/df ($\chi 2$/df) value of 01.287, RMSEA of 0.027 indicated a good fit (see Hair et al., 2010; Hu & Bentler, 1999). Also, the PCLOSE's value of 0.907 is acceptable. More so, the CFI of 0.994, GFI of 0.990, and TLI value of 0.991 respectively, of the model demonstrated acceptability (Fan, 2016; Hair et al., 2010; Hu & Bentler, 1999; Etezadi-Amoli & Farhoomand, 1996).

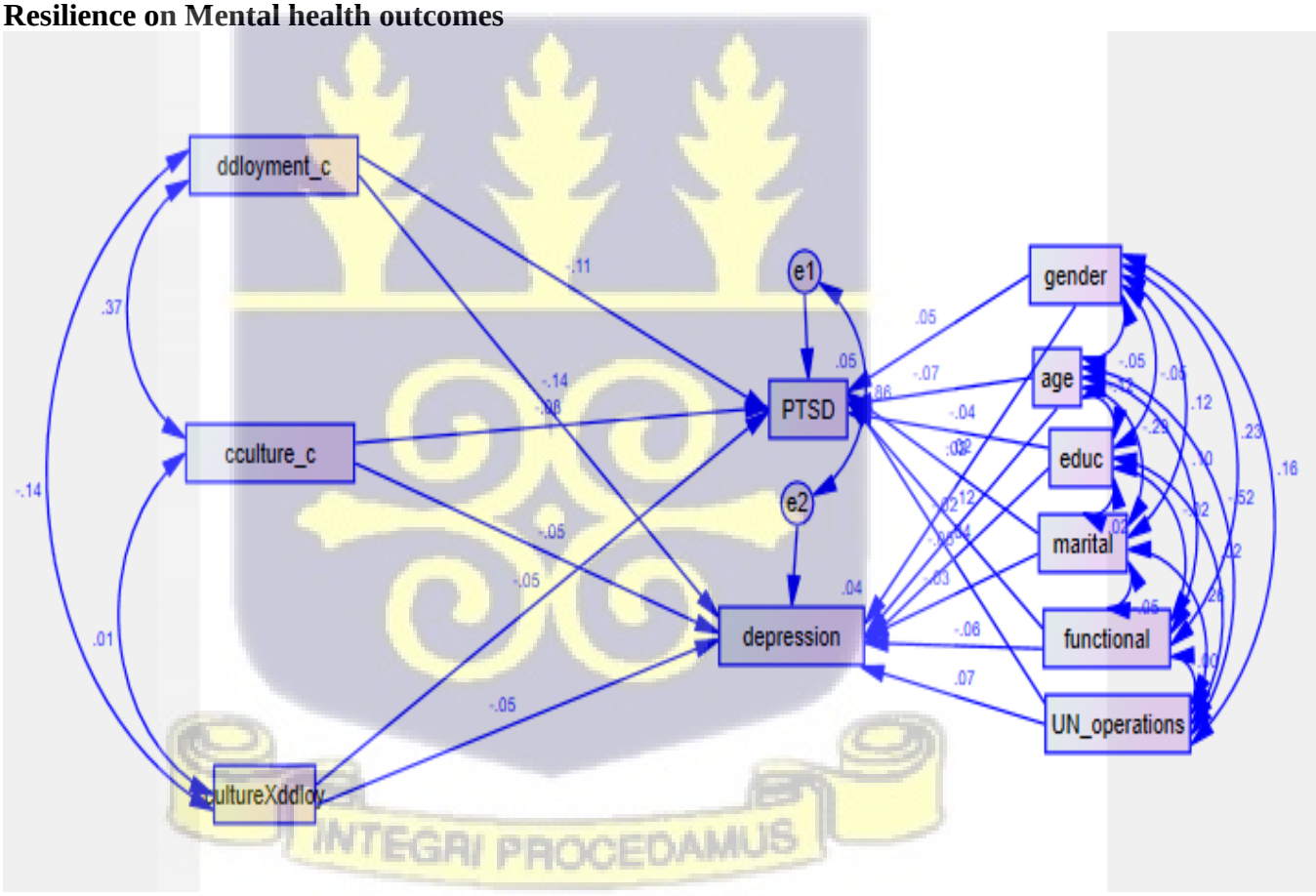
Figure 4.8: Direct and Interactive effects of Unit Support during Deployment and Cross-cultural Competence on Mental health outcomes



Source: Field Survey (2021)

The fifth and final model in Figure 4.9 showed the direct and interactive effects of unit support during deployment, and resilience on mental health outcomes (post-traumatic stress disorder and depression). This model had a CMIN/df ($\chi 2$/df) value of 1.392, indicating good fit because it is below 3 (Hu and Bentler, 1999) and its RMSEA of 0.031 is acceptable (see Hair et al., 2010; Hu & Bentler, 1999), as well as the PCLOSE's value of 0.863. Also, the model had a CFI of 0.992, GFI of 0.989, and TLI value of 0.977 respectively, all exceeded the minimum threshold of 0.90 for acceptability (Fan, 2016; Hair et al., 2010; Hu & Bentler, 1999; Etezadi-Amoli & Farhoomand, 1996). Thus, the model has demonstrated adequate level acceptability.

Figure 4.9: Direct and Interactive effects of Unit Support during Deployment and Resilience on Mental health outcomes



Source: Field Survey (2021)

4.10.2 Main Research Results and Test of Hypotheses

This section presents the statistical results based on the study's objectives and hypotheses as follows:

Research Hypothesis One (H1): Military deployment practices will have significant effects on the mental health outcomes of military expatriates.

The first research objective sought to examine whether military deployment practices (selection, training and preparation, and unit social support) will have a significant influence on mental health outcomes of Ghanaian military expatriates. To achieve this, hypothesis one (H1) was tested using series of estimations. To start with, the effect of pre-deployment selection and training on mental health outcomes (post-traumatic stress disorder, and depression) was assessed by relying on the empirical results in Figure 4.5 – Figure 4.7 and their corresponding statistical results in Model 1 – 3 of Table 4.10. From the results in Figure 4.5 and Model 1 in Table 4.10, pre-deployment selection and training has an insignificant negative influence on post-traumatic stress disorder ($\beta = -0.10$, $p > 0.05$) but showed a significant negative influence on depression ($\beta = -0.14$, $p < 0.05$) at 5% level of significance.

Similarly, the results in Figure 4.6 and Model 2 in Table 4.10 showed that pre-deployment selection and training has a significant negative influence on post-traumatic stress disorder ($\beta = -0.22$, $p < 0.01$) and depression ($\beta = -0.26$, $p < 0.01$), all at 1% level. Likewise, Figure 4.7 and Model 3 in Table 4.10 indicated that pre-deployment selection and training can negatively and significantly predict post-traumatic stress disorder ($\beta = -0.14$, $p < 0.05$) at 5% level as well as depression ($\beta = -0.17$, $p < 0.01$) at 1% level.

Besides, the effect of unit support during deployment on mental health outcomes (post-traumatic stress disorder, and depression) was examined using the empirical results in Figure 4.5, Figure 4.8 and Figure 4.9, as well as their corresponding statistical results in Model 1, Model 4 and Model 5 of Table 4.10. As shown in Figure 4.5 and Model 1 of Table 4.10, unit support during deployment showed statistically insignificant positive influence on post-traumatic stress disorder ($\beta = 0.02$, $p > 0.05$), and depression ($\beta = 0.01$, $p > 0.05$) respectively. However, the results of Model 4 in Table 4.10 and Figure 4.8 indicated that unit support during deployment can significantly reduce post-traumatic stress disorder ($\beta = -0.11$, $p < 0.10$) and depression ($\beta = -0.14$, $p < 0.05$). Similarly, although the results remain negative in Model 5 in Table 4.10 and in Figure 4.9 for post-traumatic stress disorder ($\beta = -0.04$, $p > 0.05$) and depression ($\beta = -0.05$, $p < 0.05$), they are not statistically significant.

The overall assessment of the above empirical evidence generally provided support for the hypothesis one (H1) which states that *military deployment practices (selection, training and preparation, and unit social support) will have significant effects on the mental health outcomes of military expatriates.*

Research Hypothesis Two (H2): Cross-cultural competence will have significant negative effects on the mental health outcomes of military expatriates.

The second hypothesis sought to determine whether cross-cultural competence will have a significant negative effect on mental health outcomes of Ghanaian military expatriate. This objective and its corresponding hypothesis are analysed using the empirical results in Figure 4.5 – 4.6 and Figure 4.8 and their corresponding statistical evidence in Model 1 – 2, and Model 4 in Table 4.10. To start with Figure 4.5 and Model 1, cross-cultural competence has

insignificant positive effect on post-traumatic stress disorder (β = 0.09, p > 0.05), but showed a significant positive influence on depression (β = 0.14, p < 0.05). However, the results in Figure 4.6 and Model 2 of Table 4.10 show that cross-cultural competence has insignificant negative effects on post-traumatic stress disorder (β = -0.04, p > 0.05) and depression (β = -0.001, p > 0.05).

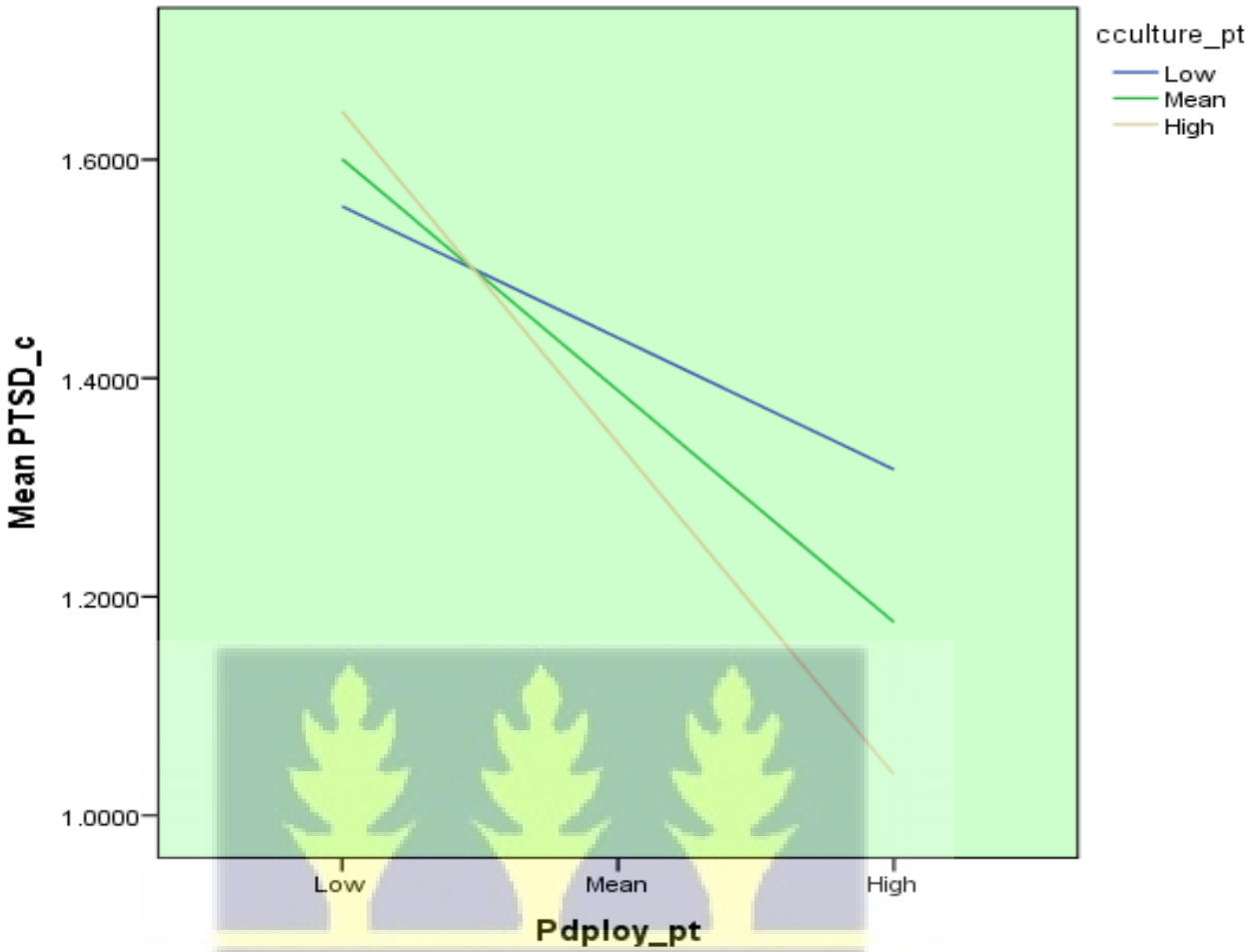
A similar trend was found in Model 4 of Table 4.10 and Figure 4.8 as cross-cultural competence has negative but insignificant influence on post-traumatic stress disorder (β = -0.08, p > 0.05) and depression (β = -0.05, p > 0.05). These results collectively suggest that the influence of cross-cultural competence on mental health outcomes may be mixed, showing either significant positive, or no effect (i.e., insignificant negative and insignificant positive). Thus, the empirical results did not support the second hypothesis (H2) that *cross-cultural competence will have significant negative effects on the mental health outcomes of military expatriates.*

Research Hypothesis Three (H3): Cross-cultural competence will significantly moderate the relationship between military deployment practices and mental health outcomes of military expatriates.

The third objective sought to determine whether cross-cultural competence will moderate the relationship between military deployment practices and mental health outcomes of Ghanaian military expatriates. The results in Figure 4.6 and Model 2 in Table 4.10 showed that the interactive term for cross-cultural competence and pre-deployment selection and training (i.e., *PreDPxCCC*) has a significant negative influence on post-traumatic stress disorder (β = -0.11, p < 0.05) and depression (β = -0.13, p < 0.05) at 5% level. In addition, Figure 4.10 is used to

plot the significant interactive effect of cross-cultural competence and pre-deployment selection and training on post-traumatic stress disorder. The interactive plot shows that the level of post-traumatic stress disorder among military expatriate is at its lowest at high levels of cross-cultural competence and pre-deployment selection and training while it is at its highest at low level of cross-cultural competence.

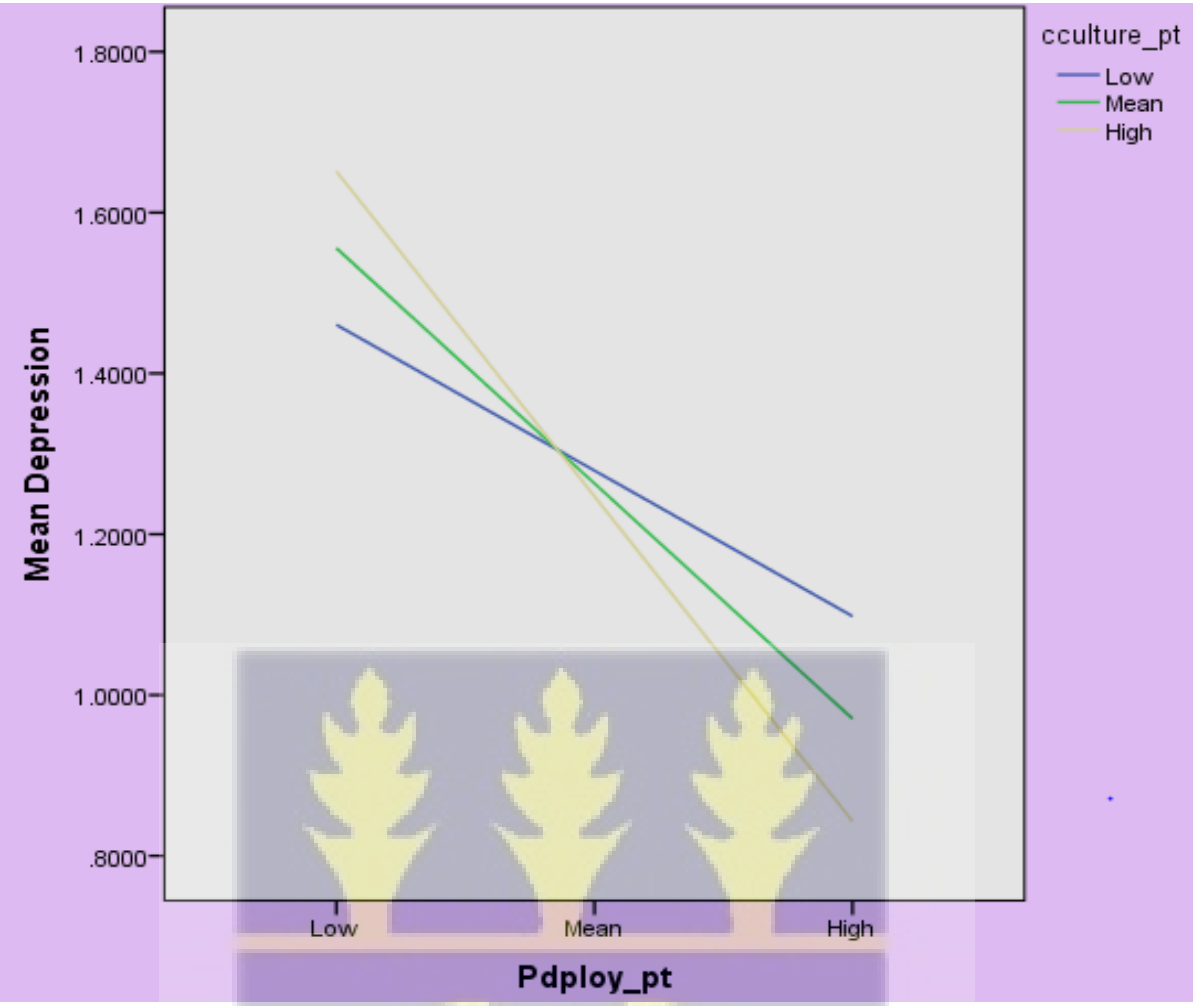
Figure 4.10: A Plot of Interactive Effect of Cross-cultural Competence and Pre-deployment Selection and Training on Post-traumatic Stress Disorder



Source: Field Survey (2021)

Similarly, Figure 4.11 below plotted the significant interactive effect of cross-cultural competence and pre-deployment selection and training on depression. It shows pre-deployment selection and training reduces depression better at high levels of cross-cultural competence relative to low level of cross-cultural competence.

Figure 4.11: A Plot of Interactive Effect of Cross-cultural Competence and Pre-deployment Selection and Training on Depression



Source: Field Survey (2021)

However, the results in Figure 4.8 and their associated statistical evidence in Model 4 in Table 4.10 suggested that the interactive term for cross-cultural competence and unit support during deployment (i.e., *DuDPxCC*) has insignificant negative influence on post-traumatic stress disorder ($\beta = -0.05$, $p > 0.05$) and depression ($\beta = -0.05$, $p > 0.05$).

Thus, this empirical evidence provided partial support for the Hypothesis Three (H3) in the sense that cross-cultural competence significantly moderated the relationship between pre-deployment selection and training and mental health outcomes of military expatriates with it

its moderating role in the relationship between unit support during deployment and mental health outcomes of military expatriates is not supported.

Research Hypothesis Four (H4): Resilience will significantly and negatively influence the mental health outcomes of military expatriates.

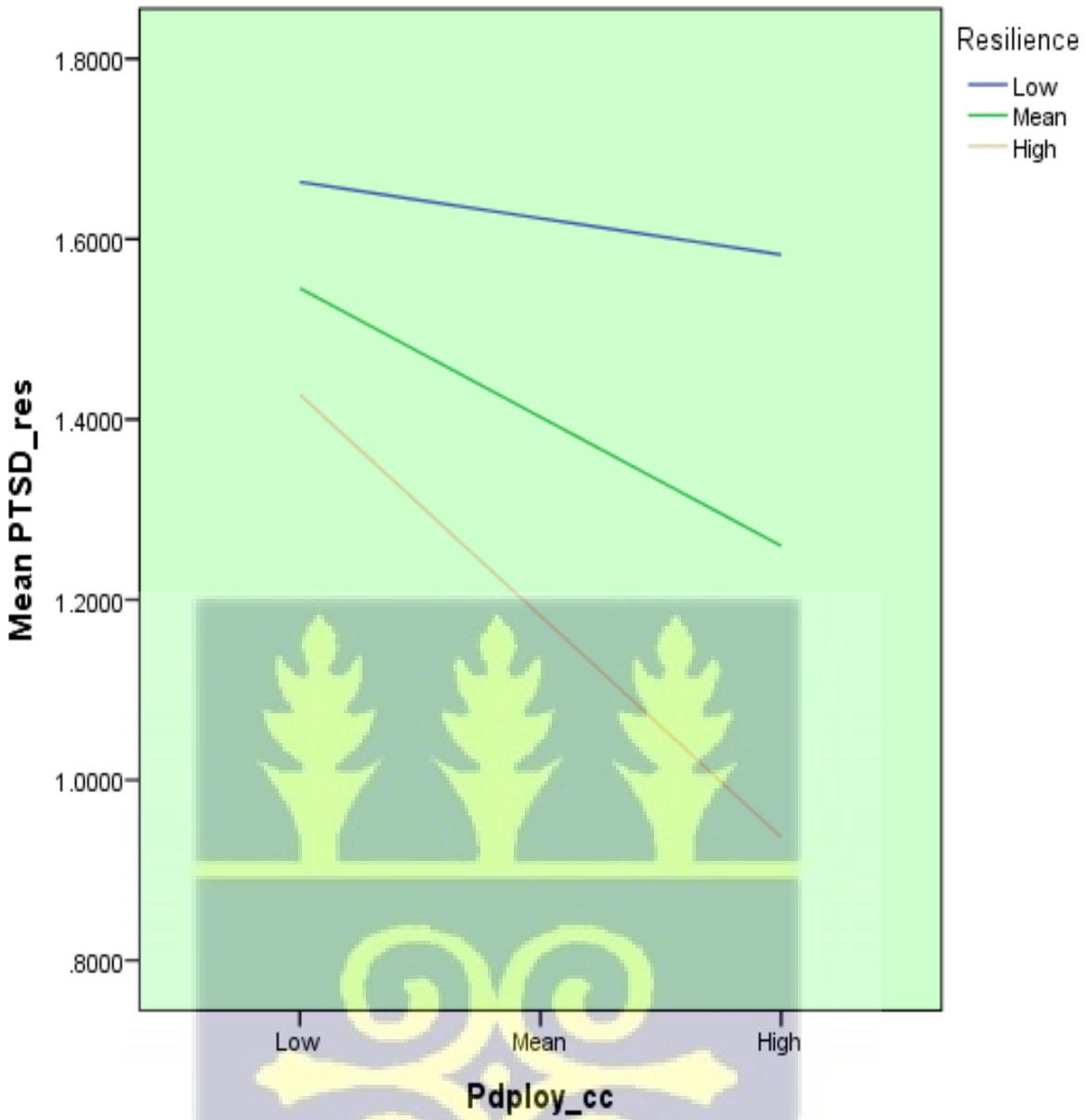
The fourth research objective sought to assess whether resilience will have a significant effect on the mental health outcomes of Ghanaian military expatriates. To achieve this, the empirical results in this objective and its corresponding hypothesis is analysed using the empirical results in Figure 4.5, Figure 4.7, and Figure 4.9, as well as in Model 1, Model 3 and Model 5 in Table 4.10 are used. As shown in Figure 4.5 and Model 1 in Table 4.10, resilience negatively and significantly predicted post-traumatic stress disorder ($\beta = 0$ -0.24, $p < 0.01$) and depression $\beta = 0.28$, $p < 0.01$).

Likewise, the results in Figure 4.7 and Model 3 in Table 4.10 indicated resilience have a significant negative effect on post-traumatic stress disorder ($\beta = 0$ -0.20, $p < 0.01$) and depression $\beta = 0.21$, $p < 0.01$). Similarly, the results in Figure 4.9 and Model 5 in Table 4.10 indicated that resilience can positive and negatively influence post-traumatic stress disorder ($\beta = 0$ -0.23, $p < 0.01$) and depression $\beta = 0.24$, $p < 0.01$). These results together, have provided empirical support for the fourth hypothesis (H4) which argues that *resilience will significantly and negatively influence the mental health outcomes of military expatriates.*

Research Hypothesis Five (H5): Resilience will significantly moderate the effect of military deployment practices on mental health outcomes of military expatriates.

The fifth and final objective aimed to assess the moderating role of resilience in the relationship between military deployment practices and mental health outcomes of Ghanaian military expatriates. The results in Figure 4.7 and Model 3 in Table 4.10 showed that the interactive term for resilience and pre-deployment selection and training (i.e., *PreDPxRES*) has a significant negative influence on post-traumatic stress disorder ($\beta = -0.15$, $p < 0.05$) and depression ($\beta = -0.15$, $p < 0.01$). This significant moderation effect is graphically explored. Specifically, Figure 4.12 is used to plot the significant interactive effect of resilience and pre-deployment selection and training on post-traumatic stress disorder. The interactive graph shows that the level of post-traumatic stress disorder among military expatriate is at its lowest when their resilience level is high, but it increases when resilience is low.

Figure 4.12: A Plot of Interactive Effect of Resilience and Pre-deployment Selection and Training on Post-traumatic Stress Disorder

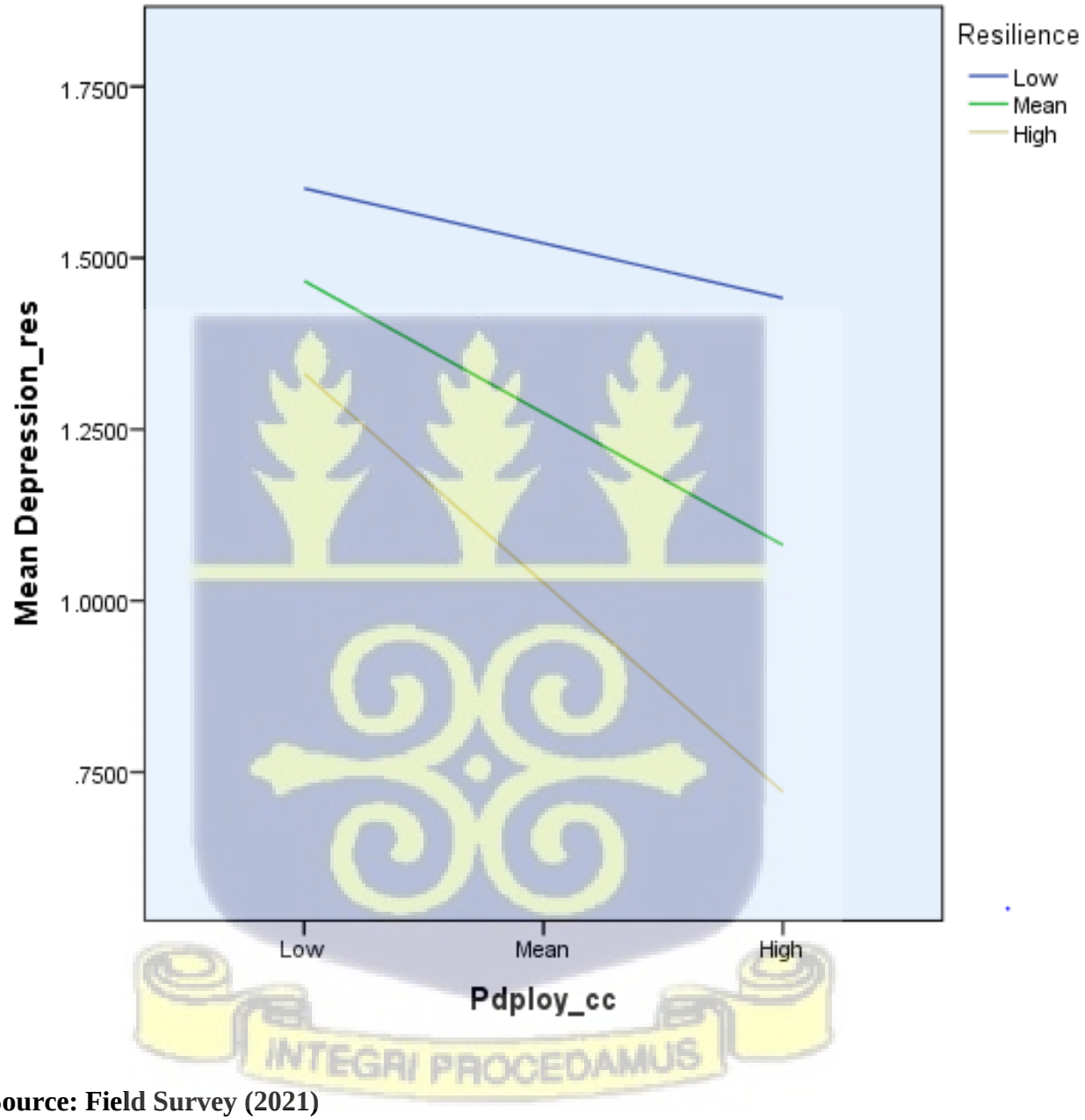


Source: Field Survey (2021)

Similarly, Figure 4.13 which is used to plot the significant interactive effect of resilience and pre-deployment selection and training on depression indicates that the level of depression

among military expatriate is at its lowest when their resilience level is high, but it is at its highest when resilience is low.

Figure 4.13: A Plot of Interactive Effect of Resilience and Pre-deployment Selection and Training on Depression



Source: Field Survey (2021)

However, the results in Figure 4.9 and their associated statistical evidence in Model 5 in Table 4.10 showed that the interactive term for resilience and unit support during deployment (i.e., *DuDPxRES*) has insignificant negative influence post-traumatic stress disorder ($\beta = -0.06$, $p > 0.05$) and depression ($\beta = -0.05$, $p > 0.05$).

Thus, the empirical evidence provided partial support for Hypothesis Five ***(H5)*** because resilience significantly moderated the relationship between pre-deployment selection and training and mental health outcomes of military expatriates but did not significantly moderate the relationship between unit support during deployment and mental health outcomes of military expatriates.

Table 4.10: Results from the Direct Paths and Moderated Structural Equation Models

Model	Hypothesised Path Relationships		Estimate	S.E	C.R	p	χ2/df	GFI	CFI	ITL	RMSEA	PCLOSE
1	H1	PreDP ……...> PTSD	-0.10	0.09	-1.53	0.13	1.138	0.989	0.998	0.993	0.018	0.975
		PreDP ……...> Depression	-0.14**	0.10	-2.15	0.03						
	H1	DuDP ……...> PTSD	0.01	0.09	0.14	0.89						
		DuPD ……...> Depression	0.01	0.09	0.15	0.88						
	H2	CCC ……> PTSD	0.09	0.11	1.31	0.19						
		CCC ……> Depression	0.14**0.12	2.20	0.03							
	H4	Resilience…...…> PTSD	-0.24***	0.11	-3.40	0.00						
		Resilience……> Depression	-0.28***	0.11	-4.07	0.00						
2	H1	PreDP …….> PTSD	-0.20***	0.08	-3.57	0.00	0.98	0.992	1.00	1.00	0.00	0.981
		PreDP ……...> Depression	-0.26***	0.09	-4.59	0.00						
	H2	CCC ……....> PTSD	-0.04	0.09	-0.66	0.51						
		CCC ……..> Depression	-0.001	0.10	-0.02	0.98						
	H3	PreDPxCCC ….> PTSD	-0.11**	0.10	-2.21	0.03						
		PPDxCCC…....> Depression	-0.13**	0.11	-2.50	0.01						
	H1	PreDP ……....> PTSD	-0.14**	0.08	-2.33	0.02	0.828	0.993	1.00	1.00	0.00	0.994
3		PreDP ……....> Depression	-0.17***	-0.09	-2.94	0.00						
	H4	Resilience ……..> PTSD	-0.20***	0.08	-3.63	0.00						
		Resilience…….....>Depression	-0.21***	0.09	-3.80	0.00						
	H5	PreDPxRES……> PTSD	-0.15**	0.08	-2.81	0.01						
		PreDPxRES .....> Depression	-0.15***	0.08	-2.86	0.00						
	H1	DuDP …….> PTSD	-0.11*	0.08	-1.97	0.05	1.287	0.990	0.994	0.991	0.027	0.907
4		DuDP……..> Depression	-0.14**	0.08	-2.53	0.01						
	H2	CCC ……....> PTSD	-0.08	0.09	-1.45	0.15						
		CCC ……....> Depression	-0.05	0.10	-1.03	0.30						
	H3	DuDPxCCC …...> PTSD	-0.05	0.09	-1.06	0.29						
		DuDPxCCC …...> Depression	-0.05	0.10	-1.01	0.31						
5	H1	DuDP …….> PTSD	-0.04	0.08	-0.76	0.45	1.392	0.989	0.992	0.977	0.031	0.863
		DuDP……..> Depression	-0.05	0.08	-0.10	0.32						
	H4	Resilience…….....> PTSD	-0.23***	0.08	-4.12	0.00						
		Resilience…….....> Depression	-0.24***	0.09	-4.42	0.00						
	H5	DuDPxRES ……> PTSD	-0.06	0.07	-1.15	0.25						
		DuDPxRES…….> Depression	-0.05	0.08	-0.93	0.36						

*Note: ***, **, * Estimate is significant at 1% (0.01); 5% (0.05) and 10 (0.10) respectively. PreDP = Pre-deployment selection and training; DuDP = Unit support during deployment; RES = resilience; CCC = cross-cultural competence. Multiplied variables represent their interactive term.*

4.11 Summary of Quantitative Results

The quantitative results are summarised in Table 4.11 below for each of the hypotheses. In summary, the results show military deployment practices composing of pre-deployment selection and training, and unit support during deployment can negatively influence mental health of military expatriates. Second, it shows the effects of cross-cultural competence on mental health ranges from significant positive to no influence (i.e., insignificant negative and insignificant positive) on mental health outcomes. Hence, its effect is described as mixed in this study.

Third, the study's findings suggest that cross-cultural competence and pre-deployment selection and training have significant negative interactive or moderating effect on mental health outcomes. However, the interactive influence of cross-cultural competence and unit support during deployment on mental health outcomes is statistically insignificant.

Fourth, resilience has a significant negative effect on mental health outcomes. Fifth and finally, resilience and pre-deployment selection and training have a significant and negative interactive influence on mental health outcomes. However, resilience did not moderate the influence of unit support during deployment on mental health outcomes.

Table 4.11: Summary of the Quantitative Results

Hypothesised Relationships		Overall Statistical Results	Supported?
H1:	Pre-deployment ……>Mental health	Negative and significant	Yes
	During-deployment …..>Mental health	Generally negative and weak	Yes
H2:	CCcompetence……...>Mental health	Generally mixed	No
H3:	PreDPxCCC……...>Mental health	Negative and significant	Yes
	DuDPxCCC ……...>Mental health	Negative but insignificant	No
H4:	RES ……>Mental health	Negative and significant	Yes
H5:	PreDPxRES……>Mental health	Negative and insignificant	Yes
	DuDPxRES…….>Mental health	Negative but insignificant	No

PreDP = Pre-deployment selection and training; DuDP = Unit support during (in-theater) deployment; RES = resilience; CCC = cross-cultural competence. Multiplied variables represent their interactive term

Source: Field Survey (2021)

4.12 Chapter Summary

This Chapter presented the preliminary analyses and main results. It included the determination and review of missing values, common method bias analysis, assessment of outliers and normality, multicollinearity, descriptive analyses, correlation, and measurement model assessments. It also presented the results of test of hypotheses (direct and moderated structural path models). Together, they provided new insights on the effect of military deployment practices on mental health outcomes of Ghanaian military expatriates under conditions of availability of key personal resources of resilience and cross-cultural competence.

CHAPTER FIVE

QUALITATIVE FINDINGS

5.0 Introduction

This chapter presents the analyses of the qualitative study on military deployment practices, cross-cultural competence, personal resilience, and mental health of military expatriates. It discusses the demographic characteristics, and the emerging themes.

5.1 Demographic Characteristics of the Interviewees

Table 5.1 shows the demographic characteristics of the study's interviewees. In all, a total of eighteen (18) officers, men and women who have recently returned from international peacekeeping operations were interviewed. Out this number, nine (9) were from the Army, five (5) from the Navy, and four (4) from the Air Force. This distribution is generally fair given that the Army is the largest service category within the Ghana Armed Forces. This number included two medical practitioners: one public health doctor, as well as a psychiatric and medical doctor. It is important to note that the doctors were also active Servicemen. In terms of gender, three (3) of the respondents were female. Also, seven respondents had pre-tertiary education, three (3) had bachelor's degrees, and eight (8) had master's degree. The minimum and maximum missions participated in by the respondents were two (2) and seven (7) respectively. The respondents were recruited across different ranks (both junior and senior).

Table 5.1: Profile of Interviewees/Research Participants

No.	Age	Gender	Highest Education	Service Category	Rank	Number of Missions
P1.	33	Male	Bachelors' Degree	Army	Major	3
P2.	39	Male	Bachelors' Degree	Army	Captain	5
P3.	46	Male	Secondary school	Army	Warrant Officer 1	3
P4.	50	Male	*HND and City & Guild	Army	Warrant Officer	7
P5.	48	Male	A - Level	Army	Senior Warrant Officer I	5
P6.	52	Male	Form 4 (elementary)	Army	Master Warrant Officer	5
P7.	39	Female	Masters' Degree	Navy	Lieutenant Colonel	3
P8.	51	Male	Master's Degree	Navy	Naval Captain	2
P9.	36	Male	Masters' Degree	Navy	Lieutenant Commander	3
P10.	45	Female	Masters' Degree	Navy	Commander	2
P11.	46	Male	City & Guild Intermediate	Navy	Senior Warrant Officer	4
P12.	42	Male	Masters' Degree	Air Force	General Captain	2
P13.	51	Male	Masters' Degree	Air Force	Captain Colonel	5
P14.	40	Female	Bachelors' Degree	Air Force	Flight Sergeant	3
P15.	47	Male	O- Level	Air Force	Senior Warrant Officer	5
P16.	49	Male	Masters' Degree	Navy	Naval Captain/Medical Doctor	4
P17.	60	Male	Masters' Degree	Army	Colonel/Psychiatric Doctor	4
P18.	52	Male	Bachelors' Degree	Army	Senior Warrant Officer	4

Source: Interview Data, 2021; *HND = Higher National Diploma

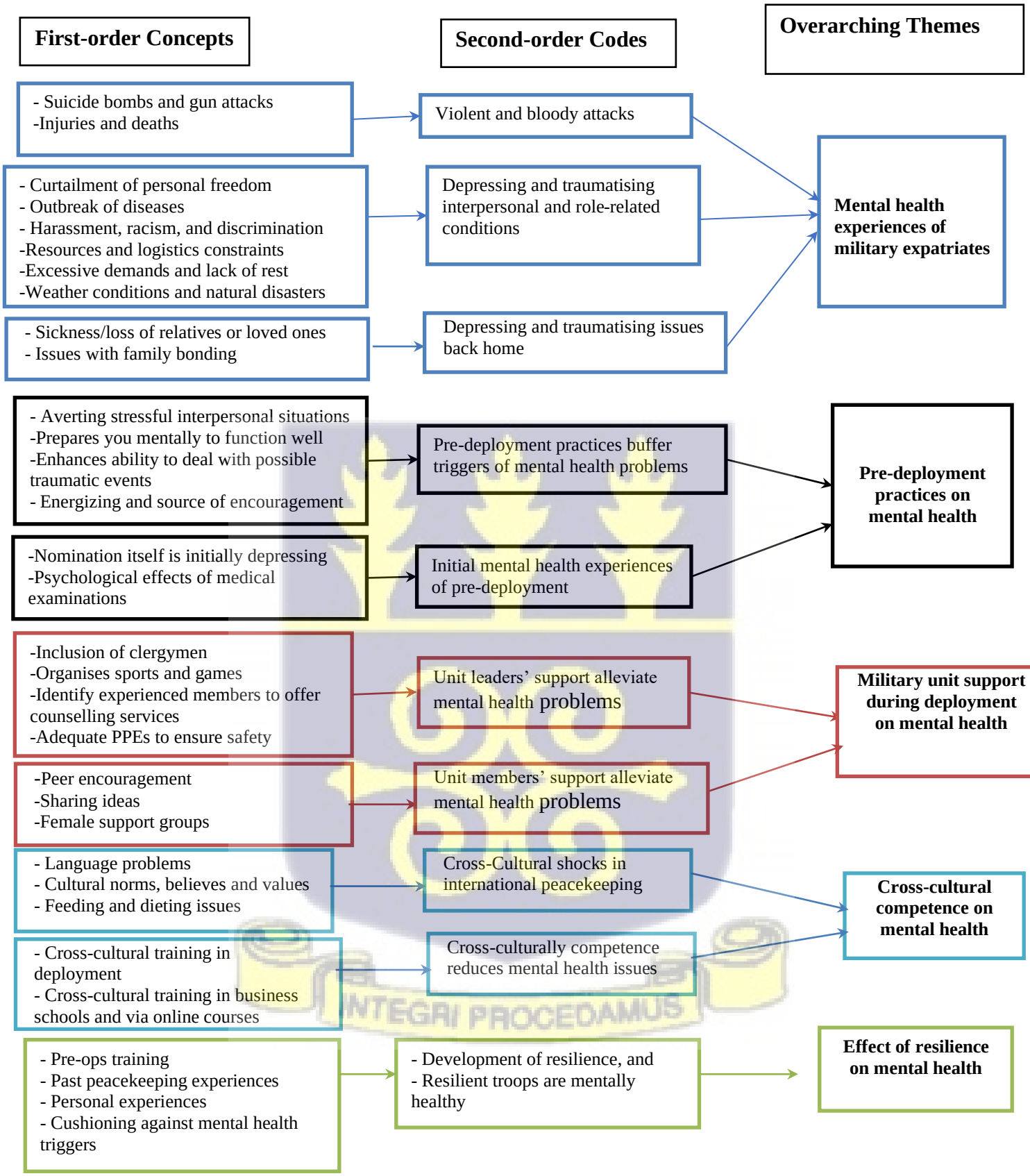
5.2 Emerging Themes and Results of Qualitative Data Analyses

As noted, the qualitative data was analysed using thematic data analysis. It is a technique for identifying, analysing, and reporting patterns and themes in a qualitative data (Braun & Clark, 2006). Following this procedure, the study identified and organised the results under the following themes that have emerged from the researcher's several readings of the transcribed interview:

- Mental health experiences of military expatriates
- Pre-deployment practices and mental health
- Unit support during deployment and mental health
- Cross-cultural competence and mental health of military expatriates
- Resilience and mental health of military expatriates

The detailed data structure in terms of themes is shown in Figure 5.1 below.

Figure 5.1: Data Abstraction, Data Structure and Themes



Source: Author's Construct (2021)

5.2.1 Mental Health Experiences of Military Expatriates

Violent and bloody attacks

Incidents of suicide bomb attacks, explosions, gunshots by rebels and locals are considered by the respondents as major traumatic events that affect their mental wellbeing. In certain operational theaters, due to their risky nature, if troops hear sounds of a car they need to hide or run to safety. Thus, the security situation in the mission area and around their camp can get deteriorated at a certain point during the deployment. The respondents noted that in some instances, rebels, warring factions, or belligerents fired various types of weaponry, within close ranges into their camps, while others were being robbed of their valuables at gunpoint. The melee as soldiers spontaneously react to such emergencies can be disastrous and constitutes a critical problem for command and control in the field.

For example, irrespective to an individual's reaction to such emergencies, the loss of personal weapons, could lead to the repatriation of the one involved; what an irony. Hence, if something like that happens, it can affect their way of thinking and affect their stress levels negatively. Such an individual, on return from the theatre of operations, could have repeated, disturbing memories and or images of those stressful moments to the extent that some would ask their wives, sometimes, if they heard a gun being shot around their home/house. For instance, a female Army Lieutenant Colonel recounted an experience of colleagues who were stationed in Timbuktu, Mali (MINUSMA). She was stationed at Gao but her colleagues at Timbuktu operated in "quiet a stressful environment to the extent that some of them at certain times, when they hear even the sound of an ambulance they dash for cover" **(P7)**.

Recounting a similar experience, a male Lieutenant Commander revealed how they always lived in fear because of entrapment and insecurity. In his own words, he said:

> *…I remember it happened to me and my colleagues. The first…firing which was around our vicinity, which was supposed to be a protected UN area; so, with the briefing you get, that you are going to live in an area with security guards and protection at night; suddenly, you hear people firing AK47 (rifles) within the distance of 100/200m. It gives you that sense of insecurity; and you are, and must, always be alert; but then the worst part is because transport is not readily available, you have no option than to stay in your room because you cannot run, and the main exit is by air and at night you are not going to get a flight. That sense of insecurity and entrapment haunts you throughout the mission… Even beyond that, I dare say that what I really encountered during my 14 months stay was a bit different because the security situation escalated to the point that the locals were attacking UN personnel who were unarmed. A couple of my friends were robbed. There was even a Pakistani Lieutenant Colonel who was robbed of his passport and mobile phones at gunpoint. Prior incidents where UN personnel resisted such attacks were stabbed to death so eehh… we were a bit concerned when those things started happening… On your return home, you recount certain things you encountered during the tour of duty. For instance, sometimes on few occasions I would ask my wife whether she heard some gunshots… (laughs); because, sometimes, you get so used to it; after some time, those flashbacks dissipate, and you are okay* ***(P9; 36; Male; Masters; Navy; Lieutenant Commander)***

Another distressing account of rebel attacks on UN peacekeepers camp and how three members of the contingent, including the Contingent Medical Officer, were shot and fatally wounded, was revealed; unfortunately for the peacekeepers, they had to take shelter-in-place (take cover in fortified bunkers) because it was impossible for them to return fire, as the rebels were using children and women as human shields, while unleashing their attack on their base, was vividly recounted by a 46-year Male Navy Senior Warrant Officer. He recalled that:

> *We were attacked around 12 in the afternoon at a forward operating base (FOB) by elements of a rebel group operating around our Company (Unit) area of responsibility (AOR) at Gemina. The sub-unit was made up of 24 armed soldiers and 3 unarmed military observers. Apparently, the previous day before the attack, soldiers from the regular Congolese Armed Forces arrested the leader of the rebel group and brought him to the police station opposite the FOB. Suddenly, at the material time, we heard huge explosions, followed by sustained gunfire and noises from a surrounding hill. Upon further checks, we realised that the more the Congolese soldiers were firing the attackers the faster they advanced; they were not dying. Like we say, they had 'juju'. The 'formation' they used in attacking was that the children were leading, the women were behind the children, and the*

> *men were behind the women. This restricted our reactions against the advancing rebels. So, when they came closer, we just entered our camp and into our defensive positions. The rebels went to the police station and freed their leader; as they were withdrawing, they were firing indiscriminately into our camp. Three (3) of our soldiers were wounded including our medical orderly and a soldier from 3 Bn (3rd Battalion of Infantry). As part of our immediate action drills, our Platoon Commander ordered us to take shelter in an armoured personnel carrier (APC).* ***(P11).***

Likewise, some also have detailed traumatic experiences they have had in the hands of gun-wielding rebels in La Cote d'Ivoire and locals in the DR Congo. While some said they narrowly escaped after the locals launched the attacks, others said they were taken by surprise by a team of rebel forces; what saved them was their ability to speak to them in French, without taking knee-jerk reactions. One added that most soldiers on international peacekeeping operations hardly sleep in the night due to stress and traumatic-related experiences. A Group Captain recollected that:

> *…. Another day that was so scary was a Christmas day. We … myself and 2 of the pilots who were my mates at the Ghana Military Academy were at the airport to welcome the routine re-supply flight from Bouake; we were comfortably waiting and quaffing our black label. Unknowing to us, the rebels were gradually approaching the airport from its blind side. They thought we had brought some arms and ammunition to support the other side. About 5 gentlemen just appeared with weapons that they wanted to search the luggage; …we had to do some quick fix. Fortunately for me, because I speak French, I was able to explain to them that we had just come on purely troop re-supply duties and that the luggage was not for anybody but our own troops because it was a Christmas day. I showed them the items, but I had to part with some, just a way of letting them know that we really don't mean harm, as peacekeepers; but that was a very scary experience. …. most of us, I don't have the figures to support the assertion, don't sleep peacefully and restfully at night. When you go from room to room, you could see that lots of people are awake…by experience or by virtue of the job, that you are required to stay awake…. luckily, I had a clinical psychologist when I noticed that I was not sleeping* ***(P12)***

An Air Force Group Captain also remembered traumatic events of massive death of people on the street, including people they had interviewed the previous day as part of their work as a UN Military Observer mission in Sudan. These attacks, which claimed the lives of four of his colleagues, made him engage in excessive smoking, while struggling to have a good sleep with his wife, and becoming easily agitated at the least provocations. In his own words, he stated that:

> *..The African Union Ceasefire Mission in Sudan, because we were the initial people to be deployed, was terrible. That was my first and worst ever experience, where I saw a lot of deaths. You go and interview somebody today, the next time you go and see him dead by the roadside; as a Military Observer, you have to take pictures and report on it. And we were also deployed in isolated places. So that was my most stressful experience*
>
> *…In another mission, …. we were 2 groups designated for a patrol. I was supposed to be in the first team; but one gentleman moved from the second team to join the first team, so I decided to join the second team since it was just a return trip; about 15/20 minutes after the first team had taken off, escorted by troops from the Nigerian Battalion, we heard on the communication network (radio) that they were under attack. Sadly, when we got onto the scene, four (4) Nigerian soldiers had been killed. Fortunately, no Military Observer was hurt. From there, I realised that that was "blood money" we were coming to earn during the course of our tour of duty. To cut it short, it was very scary… eerrmm… I started smoking excessively and sleeping became a problem. If somebody was coming from Ghana, I did not think about food but cigarettes. I used to deliberately keep a container where I stored the cigarette butts as a relic. I got easily agitated; a small administrative or operational issue amongst team members could easily degenerate into a major issue. …Because it was close to my end of tour of duty, at the end of November that year, I refused to go for patrols. To make psychological and operational matters worse, the Nigerian contingent made us "prisoners", either by refusing to provide the necessary protection outside the camp or let anybody leave the camp* ***(P13).***

Likewise, an Army *Colonel and medical and psychiatric p*ractitioner noted that some injuries suffered by troops, as well as outbreak of diseases, for instance, lassa fever, in camps or mission areas, affected their mental health significantly. This is because injuries that are severe lead to repatriation of the affected troops while outbreaks of infectious diseases create an uneasiness and fear among the soldiers. This, in his estimation and experience, endangered their mental wellbeing. Specifically, he expressed that:

> *Once, a soldier jumped from a moving vehicle, when it suddenly started reversing on a hill, and sustained a serious open fractured ankle, had to be repatriated back home. I'll admit that that became more or less a huge psychological. L****assa fever*** *from rodents also became a big challenge, just like Covid-19; sometimes you go to the theatre and there was a lot of apprehension. I recall that on our way home to Ghana from the mission assignment, one soldier became hysterical ("mad") and violent on board the aircraft; it was really a challenge…I got some of the tough guys and I sedated him. Thereafter, he was calm and slept throughout the rest of the journey until we landed and brought him to the 37 Military Hospital. It was a big challenge* ***(P17).***

Recounting a personal experience, a Senior Warrant Officer stated that:

> *Unfortunately for me, I got injured and was brought to Ghana but the mental agony itself was before I came to Ghana. I really went through a lot of mental stress because the kind of things that were written about me, I just couldn't believe it… We shouldn't always be looking at death. A soldier gets seriously injured after he fell from ladder. You could see physically that he's disabled. He was repatriated from Lebanon* ***(P5)***

Another, a male Army Captain added that:

> *…we may end up having so many soldiers going through trauma, but it might not show. A typical example is Nigeria, FBS - a special force with the Navy. Most of them find it difficult reintegrating with the family because of the nature of the training. They have recorded so many abuses* ***(P2).***

Relatedly, an Army Master Warrant Officer vividly recalled some traumatising and depressing experiences in Lebanon, when he narrated that:

> *I will talk about Lebanon because of their significantly different ways of always doing things. You will be at the checkpoint, and they will be passing with weapons, obviously concealed in coffins, as if one of their colleagues was dead and they were going to the cemetery. Irrespective of who you are, they will never allow you to open the coffin, let alone see the body. They say it is "haram". To complicate matters, they always travelled in long convoys and firing indiscriminately, making it impossible to subject them to any mandatory checks. 2 or 3 days later, you will certainly hear or record a major incident and or violation somewhere along the 'Blue Line', separating Lebanon and Israel. …and if that happens, the Israelis conclude that the UN is non-effective, even though they know the intransigence of the local armed factions in the area of operation.… in fact, the dangers and stressors in the mission area are compounded by the refusal of the "resistance forces" to allow you to operate freely. And if you insist, they sometimes fire at you. Ultimately, you ask yourself, "what am I here for", leading to endless mind-boggling thoughts* ***(P6)…***

Depressing and traumatising interpersonal and role-related conditions

The responses of the respondents indicate that they experience mental health problems in international peacekeeping theatres due to a range of interpersonal factors. These factors mainly include isolation and curtailment of personal freedom, harassment, racisms, and discrimination, and unfair treatment in the hands of their superiors.

Curtailment of personal freedom

Mental health among troops on international missions is driven by isolation and lack of adequate freedom. As part of the protocols for most international peacekeeping operations, troops are not allowed to do so many things while in the theatre. Their freedom of movement, of choice, like what kind of food to eat, among others, tends to be limited by rules of engagement and Commanders, to among others, ensure that the troops are safe, and the mission is successful. While the intentions are good, for the wellbeing of the troops indicated by way of averting casualties, it affects them mentally by stressing and frustrating them. According a 46-year-old male Warrant Officer Class 1 (WO 1) of the Ghana Army:

> *I think for the mission areas, the challenges we face include lack of access to favorite food and not having freedom to do other things. Based on those things you see yourself being stressed up. You are limited from doing so many things when you are in the mission area. What makes us more stressed is you are not allowed to move around. You wake up from your bed, the same faces you see, you turn around and the same face…* ***(P3)***

This was reiterated by a 48-year-old male SWO who noted that some become angry at the least provocation because there is only a small space for several soldiers to share in their accommodation. He observed that:

> *You are a soldier in a very small pace. You are about 19 individuals. So, you should adopt a way to survive…that's why the smallest thing makes somebody annoyed. Even feeding stresses you up - everyday rice, potato; you are so stressed up during the day when you start asking yourself: "what am I going to eat?" It's really worrisome…* ***(P5)***

Likewise, military expatriates tend to be stressed-up because when they do not have the opportunities or liberties to even use any portion of their pay and allowances to patronise what they would like to have, due to the restrictions of going to town, and or for shopping, especially in operational areas that are characterised by uncertainties of attacks and hostility from some members of the public. Mental health issues induced by isolation and limitations of movement also appears to have been aggravated by the length of the missions. The level of stress is relatively

better for shorter mission assignments, like six months, and among older and more experienced troops, but it gets worse when it is a longer mission, such as those that can last for 12 months to 24 months, especially among young soldiers. As noted by a 39-year-old female Army Lieutenant Colonel:

> *At a point we had some bit of hostilities from the local community, so we had to stay indoors in the camp. Within that period, I went, we were not allowed to stay outside the camp as required by UN regulations; all administrative and or operational movement were restricted or controlled. So, for the period I was there I went to the town only once… Well, I have noticed recently that the 1-year tour of duty GAF has subscribed to has led to increased levels of indiscipline due to higher stress levels within the unit, especially amongst the younger ones, some of whom cannot really cope with being in an "enclosed area" for a long period of time. The 6-month tour was a bit manageable for most people.* ***(P7).***

In a similar fashion, a 51-year-old male Naval Captain stated that:

> *I could say that I wasn't going to town. Going to town was out of the place. The place was not all that safe. And when it comes to acquaintances, you were only limited to the people around you. For instance, those who went to GHANBATT I understand that everybody returned with their money. I only go to town once a day. Otherwise, it was a no-go area but I'm that type of person who's able to manage stress.* ***(P8).***

Harassment, racism, and discrimination

Another area of mental health concerns is harassment, racism, and discrimination in the operational areas. Analyses of the responses from the respondents established while female soldiers often experienced sexual harassment, discrimination and racism, which affect their mental well-being; their male counterparts are more concerned with racism from their white colleagues, because of the large multinational/multicultural composition of UN missions and the predominance of males. All the females interviewed identified sexual harassment experience as a major cause of mental health problems during deployment operations. They indicated that harassment is mostly perpetuated by their male colleagues and superiors, and those who are affected are unable to speak

about their ordeals, for fear of victimisation; so, they suffer in silence. As expressed by a 39-year-old female Army Lieutenant Colonel:

> *Eerrmm…from my point of view I had bitter experience that I think should be probably looked at. That was kind of harassment. Some women experience some form of sexual harassment in the mission with colleagues, sometimes it's within the unit… mmm.... and, sometimes those who suffer it keep quiet about it because sometimes they feel they cannot talk about it, or they will become victims.* ***(P7, 39, Female, Masters, Army, Lieutenant Colonel).***

With acts of racism, overtly or covertly, black troops or their civilian counterparts are looked down upon by white troops and white civilian staff; while some Asia nationals would also like women to be at the background, and but not to take or play lead roles. So, some will try to interfere with what you have been officially assigned to do in the mission. When it happens like this, it is a major border for them. According to a 45-year female Navy Commander:

> *Okay, for my appointment, being black, I experienced lots of racist tendencies and pressures. The white man would not easily accept the fact that I could do my job... and therefore wants to take over whatever responsibilities assigned. In one instance, I had to write and remind my superior what I'm supposed to do. ..on another occasion, I came to assist a Section which didn't have enough personnel. After completing that routine, it was acknowledged that I was capable and should be allowed to do my work. Some of the whites also wanted preferential treatment for their nationals, especially, when exiting or entering the camp; I faced that bit of a challenge. …. the, Asians have this thing about a woman – should be in the background so eehh…the Bangladeshis, Pakistanis, and Indians try to look down on you. And so, they don't have confidence in you even after seeing what you can do, they still don't accept you. They only give you that facial impression that they accept; behind you, it is clear they look down on you.* ***(P10)***

This was supported by another 51-year male Air Force Captain who observed that:

> *…Well, with my UNOCI (Cote d'Ivoire) experience, there were no issues with racism and discrimination; but with UNMISS (South Sudan) and the MINUSMA (Mali), Egyptians felt superior…We didn't have Indians that much but in UNMISS they also felt anytime you are in a group with them, they feel they know everything.* ***(P8, 51; Male; Masters; Navy; Naval Captain).***

Another 40-year female Flight Sergeant agreed with her colleagues, and indicated that harassment, racism and discrimination worried her to the extent that she contemplated leaving the mission and

return home. She revealed that the thought of maintaining the slot/ vacancy for Ghana, because it was a new mission - UN Force in Cyprus (UNFICYP), made her to do all she could, including resorting to the taking painkillers, just to cope. This was aggravated for her because she was the only black lady amongst the whites. As she expressed:

> *….And the mission area, I can say they were a little bit racist because I was the only black lady and from Africa. Some were nice; some too wouldn't respond even if you greeted them, they don't mind, they'll just walk away. The Greeks were worse racists, even within the military, not talking about the civilian. I had a problem with one Russian lady; anytime I greeted her she didn't respond. So, I went to her office and told her that if I greeted her again and she didn't respond, I will not greet her again. She pretended to be sorry. ...So, I had to cope and try to let them know that we are all one. It was not easy. ..Sometimes too, you know how men are, you alone as a lady - everyone wants attention at a go. You incur the displeasure of the others if you try to give attention to one person. Sometimes, they tried to give me some unreasonable tasks, thinking I will reject it. For example, during one of our routine field trips to Agustar, in the northern part of Cyprus, they asked me to drive. I retorted: Ah! I'm travelling with men, and you want me to drive amid the reckless left-handed driving in this country? I knew it was a trap and I had to prove to them I was capable... The stresses had emotional and psychological effects on me. Every little thing frightened me. One of them sarcastically remarked: "ah! Are you not eating? You are growing lean" ... (laughs). My stress levels during the first 2 months were extremely high; but after 3 months, I was able to cope with everybody, gradually, by taking painkillers. I was my own source of motivation and mentorship. Sometimes I will be walking and talking to myself. Thankfully, I think I was okay after 3 months.* ***(P14, 40, Female, Bachelors, Air Force, Flight Sergeant)***

Related to the foregoing, some of the respondents also indicated that the experienced trauma from the way some of their superiors harshly and unfairly treated them. According to a 33- year Army Major:

> *When we were deployed, I was given quiet a tough task to move certain sensitive and crucial logistics from Ghana to the mission area which I carried out quite well. However, I had a lapse with respect to one incident that I had to deal with on arrival when it was pointed out to me. One of my superiors was very harsh. He didn't hear my part of how events unfolded but drew his conclusions on what he heard from the troops. Based on that, he placed a ban on me with respect to some operational activities. As a very young officer at the time, that was a bit traumatic for me because I felt that, probably, instead of getting closer to my superior to learn, I rather coped by partially withdrawing because of the way and manner in which I was admonished openly; my part of the story wasn't actually heard and I wasn't also guided, which I would have valued more compared, to even the admonishment. That has to do with my first mission.*

> *…My second mission traumatic issue had to do with rumour mongering. A few rumours were peddled here and there. And, again, instead of hearing the side of all parties involved, it felt like a one-sided incident where various parties alleged to have been involved were side-lined and treated in a certain way and manner.* ***(P1, 33, Male, Bachelor, Army Major).***

Moreover, role-related factors like resources and logistics constraints, work overload, affect mental health of troops on international peacekeeping missions.

Resources and logistics constraints

Inadequate resources and logistics during deployment operations drive mental health problems among military expatriates. The respondents noted that not having rightful materials, especially patrol vehicles, weapons, and others, make operations in the theatre quite difficult and stressful. Mental health problems induced by this factor tend to affect those in command and leadership roles since it imposes more responsibility and pressure on them to push for certain resources for the welfare of the troops. For instance, a 39-year male Army Captain expressed that:

> *Mostly, I was deployed either as a Logistics, Food or Transport officer or a combination of the appointments. The challenges I faced, for example, in South Sudan most of the time, were with food. Initially, we didn't have access to our local foods; it was mainly rice, spaghetti and potato chips so troops were complaining, and they gave me so much headache. Also, I was deployed initially without being well vexed in the area of ration requisitions from the UN system. So, you are deployed and trained in the mission to master the art. During the first two months, the requisitions did not really fit troops' consumption patterns and preferences, thereby given them discomfort. The complaints kept coming and when it happens like that way you have some pressure from the Commanding Officers….. It was a mission that most of the things were new. I would say policies that were being implemented initially were not the best. A typical example was the directive to operate a "Chapter 7 mandate" but were told to use a "human face" when we got into the mission area. In such a situation, when you are fired upon, you first ensure your personal safety instead of firing back. You rather use other means to resolve the issue. So, Chapter 7 is enforcement and in enforcement there's is no means of negotiation or trying to mitigate. Taking that decision, in the light of standard operating procedures (SOPS) and rules of engagement (ROE), in split seconds, and using good judgement, as an individual, and thinking of the consequences, if the operational situation should degenerate, is really a*

> *complicated dilemma and requires application of considerable expertise* ***(P2, 39, Male, Bachelor, Army, Captain)***

A 33-year male Army Major similarly expressed that*:*

> *….with the mission in Lebanon (UNIFIL) I took on a new very stressful appointment as an Adjutant. There were times we needed to push for certain resources, documents and make references to UN SOPs...*
>
> *… In South Sudan, I held a command appointment. The pressure was even more with respect to troop's welfare, resources needed, and getting tools available for operational activities….* ***(P1, 33, Male, Bachelor, Army Major).***

This was also corroborated by a 42-year male Air Force Group Captain who stated that:

> *In La Cote d'Ivoire I was deployed as the Air Liaison Officer, based in Abidjan. One of my duties was to coordinate Ghana mission flights that were coming in from Bouake in the north (GHANBATT AOR), or any other mission in the sub-region approved by the UN. The distance between the offices (airport) to my residence was about 40km away, within Togo battalion (TOGOBATT) AOR. Anytime the security situation deteriorated in Abidjan and its surrounding towns and suburbs, and I had to travel to the Airport, I could not ask TOGOBATT for escort due to differences in operational mandates. At such great risks, I was forced to do my own escort duties. So, I resulted to wearing civil clothes to look like an Ivorian, picked a taxi and then found my way to the airport, changed into military clothes, did my work at the airport and found a way of camouflaging like that again on my return journey back. That was very challenging* ***(P12, 42, Male, Masters, Air Force, Group Captain)***

Expressing related sentiments, an Army Colonel and Psychiatric Doctor, bemoaned how lack or inadequate resources, particularly, accommodation, vehicles, and electrical power hampered their medical operations, and became a cause of worry for his medical team during one of the deployments. He expressed that:

> *Setting up a new medical facility and effectively operationalizing it in a new peacekeeping theatre could be a daunting task. My experiences in UNAMSIL were real "baptism of fire". I remember we had to sleep in tents, rough, for a very long time, until by the grace of one Dr. Kamara, who was setting up a medical school, offered us his premises for the Unit's operational and routine medical activities. We had all our equipment but where to sleep, rooms and accommodation, was a real challenge. Though, it was a private property, we had to re-configure/re-engineer a considerable part of the premises into troop accommodation, medical logistics and an operating theatre, as was required into our "Level One" medical facility status. Sometimes, movement to forward operations bases (FOBs), where I had to go, to assess troops' medical situation, became difficult due to lack of suitable vehicles. Electricity supply in UNAMSIL was either non-existent or unreliable*

and therefore affected our night operations.... Luckily, we had generators. The Nigerian Battalion (NIBATT) agreed to give us fuel to enable us to operate till about 10pm, hoping that when the lights went out till the next morning, there wouldn't be any casualty or emergency. It was a partial relief and professional satisfaction. Indeed, we were not optimizing the medical resources and assets at our disposal to the benefit of troops. These initial experiences were bad. ***(P17).***

Excessive demands

Work overloads and lack of rest increase stress among troops. The respondents explained that sometimes activities at the operational areas increase their work stress. They are compelled to engage in activities that are overwhelming, leaving no room for them to rest. Junior officers in particular, experience more mental health issues in form of stress compared to senior officers. They complained that after being exhausted from stressful patrolling and other operational duties, they will not have a rest but will be asked to partake in lectures, sporting activities, further stressing, and depressing them. As noted by a 46-year male WO1:

....You are from duty elsewhere, you are tired and need rest, but they will still organise lectures. So, in the operational area, we do not have enough rest. Some of us our BP normally went up in the mission area; but when we come to Ghana, we are okay. ***(P3).***

Another respondent, a 50-year WO stated that:

.....if the person is a soldier, he will not work like how maybe the warrant officer would do; the younger ones rather feel much of the stress. Sometimes, they go on duty at a designated post. Just as it was due to be relieved, they could a call that something had happened so they should continue to remain at that particular post or move to another. That person may not be psychologically prepared because he/she would have prepared the mind in "rest mode". As for the young ones, theirs could be "hellish" - they go on extended duty assignments, partake in sports and games (play volleyball or football), go to another duty post, and yet still, could be admonished by a Platoon WO for "sleeping on duty" or if involved in the least misdemeanour. Generally, the seniors (Senior Warrant Officers, Platoon Warrant Officers or Company Sergeant Majors) play administrative roles, and thus, do not feel much of the stress like the very young ones. .....Sometimes, the WO could see himself doing civic activities with some of our doctors, go and play football or have fun with our locals. For the very young ones, these situations pose significant stress and psychological problems… **(P.4, 50, Army, WO Foxtrot).**

This view was similarly expressed by a 47-year male Air Force Senior Warrant Officer who has observed that:

> *…I realized, that when you are growing in the army, the stress level in terms of operations differ. Because, if you are a private soldier what you pass through will be different from somebody like a Sergeant or a Senior Warrant Officer like me. For instance, in UNIFIL (Lebanon), where I have been to 3 times as a Sergeant, Flight Sergeant and WO, the sergeant performs additional (extra) duties. In a few instances, the Warrant Officer only goes on certain patrols, comes back to rest and recuperate. So, you realise that the workload on the WO will be less, and he/she gets time to talk to the family* ***(P15).***

Weather and natural causes

Unfavourable weather conditions and natural disasters (e.g., volcanic eruptions) can be a source of mental health problems among troops deployed in international peacekeeping theaters. Exposure to different and unfavourable weather conditions, rising temperatures, and rainfalls can be depressing to some soldiers. In some situations, the troops are deployed in a camp in the middle of nowhere. Most of the time, close to a town that has been abandoned. The people have run away, and they would be living in tents. In some situations, it will initially be tents with sand and no concrete, but generators are always provided to them.

For instance, a 39-year female Army Lieutenant Colonel stated that *in Mali,* "I was stationed in the dessert area in Gao. The weather condition there was very harsh. Temperatures could rise up to 48 degrees sometimes. So, it was a very harsh environment…my major challenge was the weather condition…" ***(P7).*** For others, it is very cold weather conditions that worry them during operations. According to some of them, although they sometimes use generator to power heaters for them to cope with the very cold weather conditions, it is not all the time they have their generators intact; thieves can come and take it away while they are asleep. For instance, a 52-year male Army, Master Warrant Officer recalled vividly that:

> *I remember one time when we were at Darigaya, a village in Southern Lebanon under the command of the late Major Mark Dorbi, as our Officer Commanding, local Lebanese tried to steal our machine gun. They had come earlier to steal our generator. You will be surprised. Their strategy was simple: they leave the machine to be running alright whilst loosening all the bolts gradually; then they will dismantle the machine and put it into their car which would be moving small, small; so, by the time you see that your lights are off, they are gone. The sudden loss of power hits you like thunder amid the cold weather conditions, without heater for.* ***(P6)***

For others, it was natural disasters that threatened their mental wellbeing and not necessarily the work they were required to perform. Some of them have recounted their scary moments with volcanic eruptions for weeks, while for others it was terrifying storms on the river during their deployment. The natural disasters, they contend, had effect on them at some point during the deployment operation as they became a bit worried and concerned about their personal welfare and wellbeing. According a 45-year female Navy Commander,

> *Eerrmmm...okay not related to the work I was doing per se, but just a natural disaster. That was the volcanic eruption in DR Congo… since we were coming from this part of the world, we haven't experienced that kind of disaster where you experience such phenomena of the whole building shaking. Especially during the night, you couldn't sleep; everything, including your bed, was shaking and you think that the building was going to break down on you. The streets were literally "opening up"; it was very scary…. It took about 2 weeks before the UN organised evacuation/relocation to a different place. From the little experience I had with volcanic eruption, the mission had a plan, but I think it was just on paper. There were no rehearsals; so, when the thing happened how to implement the plan was a problem. Individuals didn't know what to do. People decided left their homes to sleep, inside offices because it was a prefab and they thought that even if it collapsed, the injury will be less, compared to the concrete buildings* ***(P10, 45, Female, Masters, Navy, Commander)***

A 49-year male Naval Captain similarly recounted that:

> *I was deployed on the River Congo. And once or twice I commanded a logistics resupply operation. We carried materiel from Kinshasa to forward troops. The journey took about 14 days in total - 7 days coming up on the river. So, you spend time every night on the river. I remember once we were actually in a storm, and I couldn't believe that a river could be like the sea. And that was really scary…* ***(P16, 49, Male, Masters, Navy, Naval Captain/Medical Doctor)***

Depressing and traumatising issues back home

Enduring problems back from Ghana in respect of their wards, spouse and parents were highlighted by some respondents; a major cause of their mental health-related challenges. They cited bonding with their young children and family, sickness or loss of spouse or parents, and other issues relating to growth and wellbeing of their children as some challenges back that tend to have a toll on their mental wellbeing. For instance, a 39-year male Army Captain remembered that:

> *…Some had to endure challenges back home. Some lost their parents. You the individual looking back at the family felt a bit depressed or low in morale, especially if you are used to hanging out with the family most at times and looking at the duration you will be away from the family. When there are very little ones it's a bit more challenging. I had the experience of leaving my 1-year-old that was getting used to me. I had to leave her and travel to Mali and had reports of her always standing by the window, shouting my name and was coming out to meet me… anytime I got that report it made me worry; but as I always recalled the oath I swore, to go wherever ordered, I put those emotions behind me and soldier; certainly, it's not been easy.* ***(P2, 39, Male, Bachelor, Army, Captain)***

In a similar fashion, a Naval Captain stated that "I remember the first operation I went to, I was ready, packed my things, a little excited; because I had left something in my room, I went back home and found my wife crying; I was heartbroken and always thought about her. Likewise, an Army Major narrated that "…some could rather not be from the mission areas but problems from Ghana, as in whether his ward/spouse was not doing too well which takes a toll on him in the mission area" ***(P1).***

5.2.2 Deployment Practices and Mental Health

Military deployment practices within the Ghana Armed Forces can be described as a two-stage process: pre-deployment, and during the deployment (the focus of this study is on social support during deployment).

Overview of the pre-deployment phase

The pre-deployment phase consists of nomination, medical examination, and pre-deployment training, widely known among troops as pre-ops training. Nomination is via publication that informs a list of troops about their selection to partake in an upcoming international peacekeeping assignment(s). In the cases of staff officers and military observers, individuals complete personal history profile (PHP) forms to be submitted to the UN HQ. This is followed immediately by medical examination/screening. Names of all nominated troops, from all units are sent to the Public Health Department of the 37 Military Hospital, where public health officials take them through a battery of medical tests such as HIV test, popularly known among soldiers as 'Kwaku one-on-one', Hepatitis B screening, blood pressure checks, among others. The results are then sent through the chain of command to the Directorate of Peacekeeping (DAPKOP) at the Army Headquarters. When health problems are detected, the Public Health Directorate would notify the individual, through laid down procedures, for a re-examination and management. Those who have health conditions that require long term management or whose health may deteriorate whilst on the mission are dropped from the nomination. This is to allow for detailed diagnosis and treatment at the 37 Military Hospital. Those who have passed the medicals will also need to pass the pre-ops training.

Thus, as noted, the next major activity in the pre-deployment phase is 5-week pre-operational training at the Bundase Training Camp. It involves a series of activities related to the readiness of the nominated troops for the intended deployment. Troops are taken through mission-related training, including weapon training/skill-at-arms (most of which are revisions of previous knowledge, skills and abilities, except where new weapons systems are involved or need to be

taught), rigorous basic fitness tests (BFT), simulations of real or perceived possible attacks or incidents, few lectures on stress management, cultural and geopolitical issues of the mission area, driving and special-to-arm lectures for Clerks, logisticians, and administrative staff. The whole training regime is captured under the US-sponsored African Crises and Operations Training Assistance (ACOTA) programme. A Naval Captain and Medical Doctor of the Public Health Directorate of the 37 Military shed the following light on the deployment practices:

> *…. well, this is how it begins. Eerrm...you are selected/nominated; a team from different backgrounds, medicals, engineers, from various units, are nominated and then you have a command structure... we go through pre-deployment training at Bundase Training Camp where we learn about the geo political things in the theatre which we are going to operate… their norms and cultural issues, and then, in addition to that, we sharpen our skills; communication and weapon training and things like that. But even before the Bundase camping for the troops that are nominated, we go through medical examination where we go through screening processes where your current medical status is checked...so there is a selection. Command makes sure we are healthy by going through screening processes where you are checked to ensure you mentally fit…to be launched into the operation* ***(P16).***

Similarly, a male Army Captain expressed that:

> *Troops are deployed to BTC; which has now been upgraded into a School with its own permanent command and staff officers and men … the duration of pre-ops training used to be 5 weeks plus 2 weeks ACOTA signals and communications training, thus a total of 7 weeks… The ACOTA staff training, held before the main body troop concentration, involves tabletop exercises. After the training at the BTC we break from camp, come home, reorganise ourselves and then we are deployed on dates determined by the UN, usually a few weeks after the training period...* ***(P2)*** .

As noted by a female Army Lieutenant Colonel, "for now what I know is that for persons nominated as staff officers, you complete your PHP forms to be submitted to UN HQ. After that you do your medicals and then the results are also forwarded to the Department of Peacekeeping Operation (DPKO), UN HQ. Then, I went through a debriefing session at the Department of International Peacekeeping (DIPKOP) at the General Headquarters of the GAF, a driving training and test at Directorate of Supply and Transport" **(P7).** Similarly, a female Flight Sergeant noted

that "initially we had training about the way I'll work … How I will work, write my report and compile some few things" **(P14).** Likewise, a male Warrant Officer Class 1 noted that "stress management lectures are done when we embark on the mission area because after some time they realise that we were stressed. ...if we come back to Ghana 'de3' nothing" **(P3).** According to Army Colonel and Psychiatric Health Practitioner, "we've made a lot of advocacies towards counselling and stress management... so as part of the pre-deployment we give the troops education on how to manage stress, signs of mental health. We've brought it to the attention of command that, in each deployment, there must be at least one psychologist" ***(P17).***

Positive contributions of pre-deployment practices on mental health

The study sought to explore whether pre-deployment practices (nomination, medical examinations and pre-ops training) can affect the mental health of soldiers deployed in international peacekeeping theatres. Analyses of the responses indicated that pre-deployment activities can improve mental health outcomes by averting stressful interpersonal situations. Given that the troops are deployed as a team, with members coming from different Services. Commands, Formations and Units, it offers the opportunity for the members to get to know and understand one another, as well as bond effectively and efficiently for maximum cooperation and success during the actual mission deployment or operational area. Also, the pre-deployment processes enhance their knowledge, skills, and abilities in modern trends in dynamic and current generations of peacekeeping, confidence and battle readiness and, as well, provides avenues for retraining. For on-going peacekeeping missions, others also said, it prepared them mentally, because their Commanders usually conduct what is known pre-deployment reconnaissance, spending a few days with their counterparts at the operational areas, to have detailed updates of current intelligence and

security situations on the ground, thereby offering a holistic appraisal of immediate future assessments and trends in the theatre. These visits and briefs enable Commanders and Staff, on their return to lead the pre-ops training, to thoroughly prepare the whole to function well. In the light of some of these things, the respondents are of the view that pre-deployment interventions help them to avert or cope with mental health challenges.

As noted by a senior public health medical doctor and Naval Captain:

> *…. well, if you ask me, from my point of view, I have had it all positive because the training is meant to more or less condition you for what you are going into, and it is also a way to bond and to know the team you are travelling with. So, it is meant to be something that gets you in the frame of mind and tailored to where you are going just like we do for medicals. So, the medicals, for instance, there is normally pre-deployment environmental assessment led by the commanding officer; there are medical and logistics components during the AOR reconnaissance so that we know what logistics to prepare when we are eventually being deployed for these operations. For me personally, it's been okay* ***(P16)***

The Army Colonel and senior medical and psychiatric doctor also observed that:

> *…from my assessment over the years, this pre-deployment training is extremely helpful …it's helped us a lot. One, you are psychologically prepared. I would say for some of us, we don't handle weapons due to the nature of the work. But then during the pre-ops training, you re-visit your skills in handling weapons and things like that; but for such occasions there would have been a lot of post operating problems. After all these, we are physically and psychologically prepared before we are launched into the theatre, and I think it's a very positive thing that we go through …* **(P17).**

In a similar fashion, a 33-year male Army Major stated that:

> *I think it (pre-ops training) is good. Looking at the way selected peacekeeping units are composed of, that is, usually a "taskforce", with a nucleus from a major battalion/regiment, it helps to prevent certain human resources behavioural constraints and conflicts that are likely to surface in the theatre. Again, some troops will need their skills sharpened against "rust" during pre-deployment training; I believe it's very helpful and rewarding. After the pre-deployment in-mission reconnaissance, led by the commander and some staff, they come back and impact the knowledge and briefings received on the ground which empowers all troops in the Unit including what personal items to carry and what to expect. So, in that manner they are given a fair idea as to what to do. But on the grounds, anything can happen* ***(P1).***

Some respondents were also of the view that the pre-ops processes provide them with a lot of information which helps them prepare mentally for a wide range of possible options, events and developments that can occur during their deployment. Asides, having a clear mental picture of the theatre, pre-deployment activities *energize them and serve as a source of encouragement.* So, they can say that pre-deployment practices alleviate troops' stress by making them better cope with mental health triggers. In a response to the question on whether they think pre-ops training alleviate stress, Warrant Officer Foxtrot stated that:

> *…. Yes. In the morning like this...and you know music is food to the soul, so if you go and you are taking your steps, you are singing and you are singing, sometimes you feel good. When you came back and refresh…then maybe after the training by so doing you recollect (referring to the interviewer), sometimes it looks very lovely and soothing* ***(P.4)***.

Giving an account of how the operational training helps troops to deal with possible traumatic events, a 39-year-old female Lieutenant Colonel recalled that:

> *…at a point in time we had a suicide bomb vehicle in one of the camps. During the tour of duty (deployment) we receive briefings about such potential threats constantly/monthly. Fortunately, that threat happened right after we had had an exercise on such event; we were very prepared when the incident happened.* ***(P7).***

Narrating his experience in comparable circumstances, the 42-year male Air Force Group Captain recounted how the pre-ops training made them to deal with possible rebel attacks and its associated traumatic experiences. As he noted:

> *Before going to La Cote d'Ivoire we were deployed at the Takoradi Air Force Base where we did a lot of pre-operational training, simulated possible attacks and air disasters (crashes), ambushes and all those things…. they were very useful. The lessons and constant reminders during the pre-ops training, to be calm and not panic, in all situations, became invaluable when those guys (rebels) took us by surprise us at the Abidjan Airport on Christmas Day. Yes, as a human being, there may be immediate adrenalin flow with regards to your reaction to an emergency, but still, during that, try to maintain your composure so that you don't worsen the already worsened situation* ***(P12).***

Giving his overall assessment on whether pre-deployment practices help cope with mental health issues, a 46-year male Navy Chief Petty Officer stated positively that:

> …. yes, yes, yes. *That one is 100%. It is like we say: "hard at training, easy on the battlefield". For example, you are "starved" of water to the extent that you can make do without water when operational exigencies demand. So, if there's no water, you can go still survive or manage, to a reasonable degree* ***(P11).***

Negative contributions of pre-deployment to mental health among troops

Generally, the respondents acknowledged the buffering roles of pre-deployment practices against mental health problems and their triggers. However, they admittedly noted that the deployment practices can also contribute to mental health issues among troops under certain conditions. They observed that there are inherent mental health problems like stress, anxiety, among others in the processes of nomination, medical examination, and pre-ops training by themselves. For some individuals, the nomination in itself causes stress; before the main medical examinations, and most critically, the HIV/AIDS test, which they call 'Kwaku one-on-one', in their coded communications; the blood pressure (BP) test, among other tests. Once you are nominated everybody immediately becomes aware of it so if it happens that you are not able to travel, or in effect, have been dropped, everybody will know that you had an issue during the medical examinations. People will start monitoring your movement and some will suspect you of having HIV/AIDS. While testing positive for HIV is a main concern for some people, for others, it is about their blood pressure level, or both. The constant rechecking of their blood pressure tends to disturb some of them a lot psychologically. Those who even claimed that they were confident in their status still described the medicals as a bit traumatising, and some claimed they lose appetite for food while others said they prayed fervently for God's intervention to pass the medical stage of the process. Besides, given that nominated troops are coming from different units, integration process at the pre-ops training or concentration training can be stressful for some soldiers. As 50-year Warrant Officer Foxtrot narrated:

The fact that you are nominated alone 'self' is even a stress on its own… (laughs)…: aahhh. … This is because all your colleagues (others) will be looking at you as soon as your name was published in unit Part One orders. People would say "hey! I saw your publication… You don't want to go to Lebanon, eh? You will start wondering whether those are genuine concerns.

…. let me come to the medical aspect. That one is a no-go area! You have your own problems before coming to 'face' the doctors. Some would appreciate you coming; some might even tell you that you are not at the rightful place; you will continue to wonder about the pending 'Kwaku-one-one' (i.e., HIV-AIDS test); that even 'kills' us the more because, as you are going, you don't know your fate until you are told that you are cleared. During that phase, you will see soldiers sitting quietly, prayerfully and meditating; that is where we know that God exists …(laughs) and hoping God will let them pass. In every case, until the medical results are released an individual will not be at ease. Because you have already done your calculations and everything (about potential earnings in the mission area), you know that if you are able to pass the medicals, then you are one giant step towards fulfilling your dreams and then thank God. Then you now think about the pre-ops; how you are going to integrate and mingle with others from different units in the training ***(P.4).***

Also, a Master Warrant Officer vividly described his experiences, observations, and state of mental health during the periods of nomination and medical examination as:

…. I won't say it's okay because from day one that you have been nominated you start to think about so many things. This is where you will be going to '37' for a test that most people would not like to do on their own; that is the HIV test, 'Kwaku-one-on-one', as you and I already know… (laughs). For that matter if you go and take food, you don't know whether to eat or not; you lose appetite entirely. You will be wondering whether the results will be okay, since you had already informed your family, your wife and children you would soon be travelling soon. Supposing you fail, and you must go back home, what are you going to tell your wife and children? All these sometime affect our children in school because the information about the nomination and expected travel would have become public knowledge, even for the school kids. The immediate conclusion is that the kid's father is HIV positive. It affects us so much. …. If, you have not been nominated, you are okay; normal life goes on. But once you are nominated you think about so many things. The things that you go through before you are deployed to the mission area…Like I said, you start thinking about it for some period and before you realise you are going to develop BP (blood pressure) and those things… Things will start changing from after you have received news that you have passed the medical exams. Then pressure will start coming down small, small for you to be a little bit relieved, and then you start thinking about your theatre deployment ***(P6).***

In a similar fashion, a 51-year Captain Colonel of Ghana Air Force said that:

….the stresses start right from your nomination. First you are going to do a medical check-up that you have been running away from…what about if you fail the medicals (not HIV)

> *what are people going to say because if your BP is uncontrollable, they will drop you but then the stigma would remain - this man has failed the medicals oo. For Army personnel, you must do and pass the BFT (basic fitness test). So right from nomination, the stress builds up until you go through that phase with a lot of joy* ***(P13)***

The female soldiers acknowledge that aspect of the medication examinations can be stressful to troops, but they have less HIV scare. For example, a female Navy Commander agreed and stated that "…that (HIV test) scares people but I didn't have that feeling. I was only a bit worried about my BP status, because sometimes when they want to check your BP then it starts 'misbehaving'. Apart from that, I think I was fine" (**P10).**

Another female solider, a Lieutenant Colonel expressed that:

> *…I wouldn't say the medical examination affected my state of mental health. At that time, I was confident about my medical status because I had just undergone a thorough medical examination a year earlier and prior to attending and successfully graduating from the Ghana Armed Forces Command and Staff College, Senior Division, course. Thus, coming back, right after a year for re-examination was not a problem. My only concern was from a personal incident - lost my sister within that period - that became a bit of a barrier… …* ***(P7)***.

The above viewpoints were confirmed by a senior public health doctor and Naval Captain. As indicated, it is the Public Health Directorate of the 37 Military Hospital that oversees the medical examinations. He observed that if for any reason (for instance, uncontrollable BP level and not even positive HIV result) and a nominee is dropped, the affected tend to face a lot of stigmatisations, which is even extended to the children of affected soldiers in some instances. Thus, soldiers who are dropped on medical grounds can experience stress and trauma. He explained that:

> *…it's only when they are about to travel that they take their health seriously and that tends to be a little problematic for them. Because when we come across issues that have been dormant sometimes then it becomes a problem trying to solve them. Sometimes, the reality is that the motivation to get them to check themselves medically is only when they are nominated to travel. So, we do all those checks to send them…So they go do the pre-ops training…. Sometimes even as they are there, a few 'casualties' happen, and people are dropped off on the way. And I think one of the stresses the soldiers have is being dropped for medical reasons in the operation and for them it's quite traumatic…. I will also say that one of the key things that have been their anxiety is the fact that when HIV, we call it*

> *'Kwaku one-on-one' came in, it became one of the excluding criteria. ..... that was for some of them, the introduction to HIV tests. We do all the things, pre-test counselling and all that but then it still wasn't easy. And then, the complication is that for any reason when they can't travel the assumption is that the person has got HIV. So, they can't wrap their head around the fact that they can't travel. Once they go back, those who are not HIV but can't travel have a challenge in stating the reasons. So, it's been quiet challenging….*

The senior public health doctor and Naval Captain further shed light on this issue including how the emergence of Covid-19 has complicated the psychological problems of the medicals for troops nominated for international peacekeeping assignments. According to him;

> *….there have been a few more. With the advent of Covid-19, there've been a few more complications in public health practices and these are the complications where now people have to spend more time in this pre-deployment thing, so they spend about 2 weeks being quarantined. They go through the time of concentration; they spend extra time being quarantined. We must get tested for Covid-19 and quarantined again if tested positive. So, it's a little bit stressful now to travel. Because what we aim to do as public health personnel is to ensure that they travel fit. They must be in the best condition of mind and body. And I would say that with this entire additional burden we are seeing slightly more psychological conditions. People are getting a little depressed, people having issues and anxieties here and there, because the social interaction has been a little more curtailed than it should be. I think these are some of the things I have noticed* ***(P16).***

Clearly the mental stress induced by nomination and medical examination, as parts of the pre-deployment practices, cut across all ranks but the psychological problem at this stage appears relatively more prevalent among male soldiers compared to female troops. This may be because male soldiers are tending to engage in comparatively higher risky behaviours and lifestyles. Moreover, it seems the psychological problems related to medicals were more intense in those who had undergone or infrequently go for medical check up to know the status of their health. In the light of the above, it is possible some soldiers would like to make the trip at all costs, even if it is at the expense of their health, maybe by way of concealing critical information about their health conditions. This may further harm them personally and jeopardise the success of the team during the actual mission since the essence is to find out if one is medically fit for whatever challenge

lays ahead of them in the theatre. That being, overall, it appears once solders successfully passed their medicals, the problems are gone, albeit temporarily.

5.2.3 Social Support during Deployment and Mental Health

Unit social support during deployment is an important aspect of military deployment practices (Zang et al., 2017; Gibbons et al., 2012; Charuvastra & Cloitre, 2008). Hence, this section discusses social support from unit leaders and co-workers (comradeships) during deployment in the actual theatre of operations. An analysis of the responses of the respondents indicated that troops get adequate social support from their unit leaders (but in some instances, it is dependent on the kind of commander you have), and their colleagues which help to prevent or alleviate potential psychological problems during deployment.

It has emerged, during the qualitative interviews, that Formations, Commands and Units, commanders and staff officers provide a lot of social support to the members of their contingent both during the pre-operational training period and in the mission area. At the Unit level, counselling, and spiritual support for troops during deployment are provided by clergymen during perceived or real mental health problems. Over the years, it has become a practice for Ghana Armed Forces to include Pastors and Imams, who are leaders of the two main religions in Ghana, in all Units deploying on international peacekeeping missions. Besides, commanders or unit leaders ensure that there is a cordial relationship among their contingents by bringing them together through social activities like sports and games. In addition, some unit leaders identify and select people to provide counselling services to troops. They provide psychological support by drawing on the experiences of 'veteran' officers, men, and women of the Battalion, to provide counselling, encouragement, and advice to troops, especially, the young and inexperienced

members of the contingent. Some Unit leaders frequently check on their troops to be sure that they are all safe and sound. Due to this, they can see that a particular troop's behaviour has changed. They cited an example whereby if a particular troop is an extrovert type, and likes to mingle and laugh a lot, but suddenly, that person becomes moody or unhappy, the commanders can detect such behavioural changes and call them for interview to find out what is happening, and subsequently offer help to the affected person.

As expressed by a 46-year Navy Senior:

> *...Normally, with every military mission, when you are deploying, you have a Chaplain or Imam so that those who cannot stand too much stress can go and have interactions with them. Generally, because commanders know that we are all not operating from our base in Ghana, he tries as much as possible, to bring us altogether through frequent social and sporting activities. The objective is to reduce stress amongst individuals, as much as possible. Those who don't normally like games, become 'addicted' to watching movies on their laptop. Personally, I'm a sport man so I enjoy my basketball and volleyball* ***(P11).***

This was reiterated by a 33-year male Army Major by stating that:

> *.... for my last mission we had a counselling team, Chaplain, Imam and other matured individuals, who could tell if someone was having an issue, and provide counsel and guidance. ...with unit support, I was told what to expect, look forward to and how to be careful; these guided me in my interactions with my seniors who had been for theatre reconnaissance. For my last mission, I received lots of congratulations and encouragement for any job well done. Even in the mission area quiet several of my superiors would either call or send messages to find out how the mission was and how I was coping and encouraged me to give out my best* ***(P1).***

Another respondent, an Army Captain similarly expressed that:

> *.... with most of the missions I have been to, we had a counselling team, and that included the Chaplain, Imam, medical cell and some selected individuals who had some knowledge skills or experience in counselling. As part of pre-departure formalities, the entire unit is made aware of the procedures for seeking counselling assistance. Once the unit deployed, the Commanding Officer and Officers Commanding identify individuals to take additional responsibilities of counselling, with support from the unit HQ. Provisions are also made, and individuals encouraged to seek redress, talk to superiors or subordinates, anytime they were not happy over a policy, incident, or standard operating procedure.* ***(P2).***

In a similar way, an Air Force Captain narrated that:

> *…For me I think the structures are there; if you are deploying with the Contingent, we have the Counselling section which includes the Imam. I think the current arrangement is adequate. Where I think we might have a challenge is post-deployment; when you come back you are left alone. An individual might not show any signs of stress during the mission; but his/her wife/husband may notice something unusual, especially during the first few weeks or months post-mission. It took me a while to calm down when I returned home. What saved me was that I was not staying with my family. My family was in Takoradi and I was posted in Accra. But during short visits, when I intended to spend good time with my family, I ended up 'messing up' or getting angry over small issues; I got angry over little issues. My smoking habits became exceedingly very high.* ***(P13)***

Other respondents also indicated that their Unit leaders took great care about their welfare and safety by equipping them with all the necessary resources and personal protective equipment. For instance, a Naval Captain said that:

> *The unit support even in-mission was super… I had my PPEs, my ballistic helmet, and all that. I always had them on and anytime there was intelligence of a possible threat, the commander will call me specifically and tell me not to leave or get out of the camp, no matter what.* ***(P12).***

Those who served commanders or unit leaders directly have the benefit of playing games and sharing jokes with them, and through their generosity and care, they manage to save all their earnings without spending during the mission. According to a Senior Warrant Officer of the Ghana Air Force:

> *… Personally, I was serving the commander…. The commanders were checking me in terms of finances and supporting me. In fact, my first mission I brought all my money as a Private Soldier and I bought a land from that… because I was with my commander… we played games and shared jokes. That made me not to even spend some of my money and* ***(P15).***

The above experience of male troops is equally shared by the female soldiers that were interviewed. They acknowledged the support of their unit leaders during the deployment and even back from home (Ghana).

For instance, a female Lieutenant Colonel narrated her experience in terms of unit social support as:

> *…Within the mission, as I said, I was deployed as a Staff Officer, so I wasn't with any contingent; we had a Sector Commander. My first Sector Commander was a French man from Senegal; he was quite supportive… And my direct Chief/Boss, a Bangladeshi, was also quite supportive and not bias. Apart from him, at the Force Headquarters, my next direct chief was a Nigerian officer who also did his staff course here in Ghana. That mission was quite uneventful; I had enough support from my superiors within the mission. From Ghana, occasionally, I was speaking with my Director-General and Directors, who would call to find out how I was doing and, particularly, if they hear any unpleasant incident emanating from the theatre of operations* ***(P7, 39)****.*

Likewise, a female Flight Sergeant agreed with the view that their Unit leaders are very supporting, which was essential in helping them to cope and overcome challenges she faced during her deployment. As she described:

> *… Actually, nobody knew how UNFICYP mission was because; I was the first Ghanaian to be nominated to serve in the mission. Basic operational, administrative matters and geopolitical information was non-existent. Sad to say, nobody seemed to know anything about UNFICYP, if you asked. My boss would just reassure me: "don't worry I know you can do it; it's just like nobody had any fair idea about the whole place. And it's a new mission; the office is a new office, so they are now putting things together and you have to do everything on your own". Initially, I wanted to step down, but my boss said no. He encouraged me that I should just go and see how it is… From my superior, the day I moved from Ghana they had been tracking me. I didn't go straight to Cyprus; I went through Dubai…* ***(P14).***

Another lady officer, a Navy Commander agreed and said that:

> *… I think when I faced these difficulties and I spoke to my Section Chief. We were lucky we had a Chief of Staff who was from Malawi. The Force Commander and his deputy were from Brazil and France respectively. …the Deputy Force Commander had issues with blacks, so the Force Commander was the only black among the top hierarchy and was the only one who tried to mediate between the blacks and the whites. This was most unfortunate because even though the mission is in an African country, you only find few blacks at the Force HQ; the blacks were always in the minority. Thankfully, you readily get support from the Chief of Staff who would 'fight' for you if you presented any report of mistreatment from any white member of the Force HQ. The other whites were all thinking about their home countries, so you are not likely to get any kind of support from them* ***(P10).***

The above views of members of the contingents interviewed were in tandem with what those who have commanded operations shared. According to one of them:

> *.. Now, if for instance, may God forbid, you are bereaved, the Commander will call you for an interview, after your home unit has notified your new unit in the mission. Your opinion will be sought whether you want to return home in connection with funeral arrangements. When that happens, you will be contemplating and discussing a lot. Some commanders will tell you the support the new unit will provide. In some cases, individuals close to the bereaved person provide support. I have been doing it. I sacrifice myself, meet and empathise with the person, before any other person; I realised that such solidarity has lasting impact on the mind of the soldier* ***(P.4, WO Foxtrot).***

A very few of the respondents held contrary views on the level of social support they get from their Unit and commanders. Based on his experience with some commanders, he came to the conclusion that nothing profitable in terms of social support, came from commanders. In his own words, a Senior Warrant Officer captured it as:

> *Oh... I will say that I have tasted the waters; I know how deep it is. I have my own story to tell. Nothing profitable came from the commanders… when I relate to other cases, nothing profitable has come out. Maybe, it might be 2 out of 10. That's why I said I have people who have also suffered the same fate. I can let you speak to them. If they give this opportunity to every soldier, maybe at the unit level, to meet you, you will see that people have gone through a lot. The commanders of this institution (GAF) should be able to look at the subject of medical repatriation more compassionately; otherwise, you create more problems for the individual and the family… I don't know but these mental health issues that we are talking about, we have soldiers with mental health issues but where do we place them? We send them to Bandoh Ward. You put a patient with mental health issues at Bandoh Ward? Somebody who has been declared as not mentally sound and then they put a guard on him/her. It should tell you that that is not the right place. In my opinion, GAF has lost proper care and management of mental health issues* ***(P5; 48; Male; A–Level; Army; Senior Warrant Officer I).***

While the above respondent was not enthused about the level of support he had from Unit leaders, generally and commanders of the GAF, another said he had a good support from Unit leaders that are non-Ghanaians. The respondent, a Lieutenant Commander observed that:

> *…In my experience, I found more comfort in non-Ghanaians or staff officers from other areas because of my office. I happened to be in the office of a Pakistani Colonel and another officer from Zambia and a few others. …through my interactions with these other officers, we were very conscious of the fact we came from different social and cultural backgrounds and therefore needed to make efforts to make everyone feel comfortable at the workplace. Avenues were created for me to be able to communicate freely, even on issues beyond work; but I couldn't communicate to any other person than the Colonel. Though I was a Captain, I developed a good bond with the Colonel instead of my peers* ***(P9).***

The intensity and effectiveness of social support at the Unit level to troops varies from one commander to the other. Some commanders are quite responsive to the needs of soldiers.

5.2.4 Unit Member Support and Mental Health

The soldiers interviewed unanimously agreed that they enjoy a lot of support from their colleagues. They share ideas when any of them is in any difficult situation, as well as encourage one another, especially, country-wise. They explained that they get more social support in the form of encouragement from their peers than their unit leaders. From the onset, it takes talking to a colleague who has similar experiences to make some of them to cope with what they see, feel or experience. For instance, an Army Captain observed that:

> *...but majority of the encouragement comes from your peers and juniors and those you work with; when they see you in any distress situation they come around and try to encourage you; so that's what mostly keeps us going. Command occasionally comes around but most of the interactions come from peers and subordinates...* ***(P2).***

In a similar view, a female Air Force Flight sergeant noted that:

> *... Initially it wasn't easy. I chanced upon four Ghanaians who were with the British army contingent. That was when I said to myself, okay, I have some blacks among us, so I gathered the courage to approach them. ...It turned out that they had been there several times, so they knew their way about. So, sometimes if I needed anything, I would call on them to take me around when they were not on duty because I did not want to go out alone* ***(P14).***

Another respondent, an Air Force Group Captain stated that:

> *...It was nice. Most of my colleagues and friends knew I was in Abidjan alone; so, when they were in transit, whether from Ghana or other parts of La Cote d'Ivoire on leave, brought me gifts. Some of them choose to spend a day or two out of their leave days with me for obvious reasons... (laughs)* ***(P12).***

Even in some missions, support group is formed by female officers to support one other, thereby minimising or preventing incidence of stress and other psychological problems. According to a female Lieutenant Colonel;

I think it was the initial appointment for Ghana and I went as the Deputy Chief for the G-cell in the sector…. I did not meet my predecessor who was a Pakistan. So, when I got there, there was no handing over (notes). …With time, I learnt the process of how the office was run. I was also lucky to have had another female in my Cell who was from Nepal. She was the only person I met. She was quite helpful in briefing me…I should say I was lucky enough because we had several Ghanaian civilians and one military officer in that mission headquarters; The engineering officer there was also a Ghanaian, so he helped me to settle… with time I actually got along with almost everybody in the sector. I was working directly with the civilian counterparts of the Field Technical Section (FTS. My rapport with 3 Ghanaians who were already in Sector was quite good. I think the social life within that camp was quite useful. For the women, we met as a group every weekend; that kind of interaction helped us release stress... ***(P7).***

5.2.5 Cross-cultural Competence and Mental Health of Military Expatriates

Cross-Cultural shocks in peacekeeping

Cultural shocks and cultural-related issues have also been identified as major contributors to psychological problems among troops deployed in international peacekeeping theatres. The respondents indicated that problems with language, variety of food and cultural norms can be depressing, stressing and traumatizing them.

Language problems

Most of the respondents cited language challenges (barrier) as a key concern that worried them during deployment. This is because sometimes, they are deployed in French Speaking countries but many of them cannot speak or communicate with other peacekeepers in French. In other theatres, it is the local language like Swahili that is a medium of interaction with the locals. They observed that if they knew how to speak French or the language of the locals, they would have been more comfortable; because the inability to communicate affects personal life of the troops, for instance, when they for shopping. This contributed significantly to increased stress levels. Although, interpreters are embedded with the contingents for operational duties, the quality of

their interpretation was also a concern. They realised that on patrol duties, when the locals spoke for several minutes, the Interpreter only gave them a few sentences as translations of the several things the local had spoken about. Sometimes, the Interpreters even said things they were not authorised by the team, a practice they considered to be very problematic for the success of the operations and affected their state of mind of because it endangered their safety. For instance, a male Army Major stated that:

> *...but I believe initially, it was a bit of culture shock as in something you do on a regular basis in Ghana that is okay; you get to South Sudan and realise that it is totally different. In Ghana, someone may not really take offense with you switching to a different dialect, Twi, Dagomba, or Ewe, when speaking to you. But in South Sudan, the locals take great exceptions to that. To be quite specific, dealing with the South Sudanese is quiet a strenuous activity. They could be friendly with you today, you iron out everything and in a matter of hours, they could be very hostile* ***(P1).***

Supporting his colleague, a Warrant Officer 1 noted that:

> *...Whilst deployed in a French speaking country...you find it difficult to communicate with the locals, especially whilst on patrols without an interpreter. You would be wondering what to do if something happened. In such a situation, you would not have a sound mind to perform your duties* ***(P3).***

A female Army Lieutenant Colonel similarly recounted that:

> *My only challenge was the language because I'm not good in French at all. Though it was supposed to be English, in Mali most of them speak French... Those who could go out were those who could speak the local language...* ***(P7).***

Also, according to a male Senior Warrant Officer of the Air Force:

> *... In Lebanon, the issue of sexual exploitation and abuse (SEA) and language barrier made me to always stay indoors. I didn't want to get problems, so I didn't go out.*
>
> *... We had an experience in DR at Congo where a Nigerian police officer got to a bar, bought a drink and realised that about 3 ladies came to sit on the same table with him and started drinking. When this man finished his drink and got up to leave, the ladies started making noise and got hold of him. The local men also come to join in the melee and to prevent the man from leaving. Because he couldn't speak their language they held onto him, took his UN ID card until he dispensed off a few dollars. This incident was investigated by the UN, which had a policy of ZERO tolerance against SEA, as an attempt by the police*

> *officer to engage in sexual exploitation of the females and led to the repatriation of the whole Nigerian police contingent, with their female Commander, of about 120 personnel.* ***(P15).***

On the issue of interpreters, a female Navy Commander summarised it as:

> *We always had an interpreter to do the interpretation but then you realise that the local guy spoke for a long time, but the interpretation was just one or two sentences; sometimes he tells them what he thinks, without taking feedback from us.* ***(P10).***

Feeding and dieting issues

Another cultural-related factor that stresses and depresses troops on international peacekeeping mission is food or their feeding. While they admit that troops are normally trained even without food and water for some reasonable time, they are, first, human beings. The troops complained that lack of variety in feeding as well as eating foods that they are not used to stresses them a lot because some prefer to starve rather than go for the meals that were made available to them. As narrated by a male Army Captain:

> *.. because looking at Ghanaians troops who are used to eating local foods; banku, fufu, kokonte, now going off to rice. Most of us are not used to rice over and over again. So, with that it gives us a lot of stress. There were situations where some even refused to eat the food and would rather prefer taking just soup and some other foods that are not adequate… In pre-ops training (in Bundase back home in Ghana) some have the means of coming with local food from home but in the mission area b, you are limited to UN foods. So, it puts stress on some of the soldiers* ***(P2).***

Expressing a similar view, an Army WO 1 stated observed that "...the first challenge in the mission area is that you wouldn't get your favourite food, so you see yourself being stressed up". Likewise, a SWO of Air Force stated that "we were warned not to take the local foods and you know Ghana man, you have seen plantain and those things… when it happens like that your commander will 'jump' on you… **(P15).** Another SWO from the Army agreed and concisely summarised it as "…. Even, feeding stresses you up. You ask yourself everyday rice, potato? Even with the feeding, you

are stressed during the day and then you ask yourself: what am I going to eat? It's worrisome but you just have to manage it" **(P5).**

Cultural norms and practices

The cultural norms, believes and values in certain mission areas made some deployed soldiers to experience cultural shocks with potential to affect their mental health. The respondents cited several instances to support the above claim. For example, unlike Ghana where troops freely chat with women, in operational areas in Arab countries, it is considered 'haram' or taboo for foreign soldiers to talk to ladies; but their military nationals freely talk to them. A soldier that disregards this cultural norm and value of mission areas risked being attacked by the locals. They described angry reactions of the locals to the violations of local cultural norms more depressing than their military duties, in some cases. This experience was shared by all the respondents, especially, male soldiers who served on missions in countries like Sudan, South Sudan, and Lebanon.

According to an Air Force Group Captain, "in fact it was a big shock to me; first, to be in a country where alcohol was contraband … and the ladies having themselves all covered, you hardly see them. It was terrible **(P13).** Also, as a Navy Lieutenant Commander narrated:

> *My challenges began even when I arrived in Khartoum, not even Darfur itself…the culture of the people was also different, and the security situation required that you acted in different patterns than we were used to. For instance, walking around talking to a lady was almost a taboo but from our part of the world, it's seen as quite normal. Certain gestures are seen to be 'haram' or out of the culture of the people. All these required constant personal reminders or awareness otherwise you will just slip and attract angry reaction from the populace. The anger from the people was even more daunting than the military job we had in the mission itself* ***(P9).***

He continued his narration by stating that:

> *I remember in Darfur, on some days, it was common to hear gunshots; later we got the understanding that after weddings, the groom would come out and fire some shots after*

> *having an intimate moment with his wife/bride… (laugh). Another is with ladies in Sudan. For instance, we were made to know that generally sharia law prevailed, and we should comply with that; we understood… the locals had a pattern of not being in a room with a woman who isn't their wife... so I had a security guard and a female cleaner. I didn't know that I couldn't be in the same room with her for even 2 seconds; to me, that was a big issue. For instance, I could go into the room when she's cleaning, and I want to pick something. When I enter unknowingly, she rushes out. Initially, I thought it was awkward until I got to know that was their pattern of practice. It took me about 3 months to get used to the culture and their way of life.* ***(P9; Navy; Lieutenant Commander).***

However, in certain mission areas, it is the ladies themselves that end up stressing you because of their outgoing and aggressive behaviours. Sharing his experience, a Naval Captain said that:

> *….and Liberia was just like Ghana to the extent that I even heard some Ghanaian music for the first time in Liberia; I was fully home. I was in Liberia as a military observer. In Liberia, the women were aggressive. If you go to a club and she approaches and then you buy a drink for her, she will go to sit among her friends and tell them that you were the person who bought the drink for her. Before you realise her friends will also come; you will end up buying more than you planned* ***(P8).***

Likewise, a Senior Warrant Officer I agreed and stated that:

> *…. for instance, when you go to Lebanon; they say you don't shake hands with a woman. If it starts that way, then there's no need even talking to the person; avoidance was the best choice. As for the men, they flow with Ghanaian soldiers. It's now that they are changing gradually, socially. Apart from that, they don't go beyond their strict business ethics.*

Another cultural shock some experienced was pure nudity of women in certain villages or communities in a particular mission area. For example, a Naval Captain and medical practitioner recalled that:

> *Another thing that comes to mind readily was when we were deployed in Sierra Leone…we did that by road…it's like a highland that sits a little out of town and you find people that were not polished or urban. I mean, you find that in some communities, all the women will go and gather by some stream or whatever and then bath openly. These are some of the little cultural shocks but not overall negative per se, but these are things that we just took in stride* ***(P16).***

Besides, some cited the situation whereby after helping some local people in the mission area with food, they would, after eating, bring the plate back to you to wash, a practice that is alien or strange into Ghanaian culture. As Warrant Officer Foxtrot recalled:

> *…. When you go to Liberia, they like using their left hand in everything, a complete cultural divergence. Also, if you give a Liberian man food, he will bring back the bowl without washing it. These are considered misnomers in Ghana* ***(P.4).***

For others, it is about how locals in certain mission areas smoke with reckless abandon and how it affects their social life in terms of discouraging them to engage in social activities that are crucial for them to de-stress. For example, a Naval Captain said that:

> *Whatever was happening in La Cote d'Ivoire was very sensitive in terms of their politics. As much as possible, once people knew you as a UN peacekeeper, you tried not to talk about their internal politics. I noticed that the Ghanaian society was conservative whilst the Ivorian society was very much open about social life…. The first shock was the number of people I found smoking cigarettes; the difference is huge because here (Ghana) even those who smoke tend to shy away from it. …It affected me psychologically because, as a young man, sometimes I wanted to go to a club but was forced to stay at home … (laughs)* ***(P12) .***

Cross-culture and mental health of military expatriates

In the light of the above potential cross-cultural triggers of psychological problems, the study sought to determine whether the competence of the deployed soldiers in cross-cultural management alleviate mental health problems or affect their vulnerability to psychological difficulties. The analyses of their responses showed that cross-cultural training and the Ghanaian unique long history in international peacekeeping to a large extent has built the capacity of troops to deal with potential psychological effects of cross-cultural shocks.

Cross-cultural training in peacekeeping

According to the respondents, as part of their pre-ops training during the pre-deployment phase a few lectures are held by way of training them to understand the cultural values, practices, and beliefs of the local people. Others said some seminars are also organised on cross-cultural issues of the mission area during the actual deployment. These trainings are meant to expose them to the dos and don'ts of the people in the mission area. The respondents further acknowledge that

awareness and consciousness of cross-cultural issues is highly prioritised by gambit because it helps in averting hostility from the locals through cross-cultural training, which makes them very careful of what they do and even what to say. As noted earlier, for an Arab country like Lebanon, they are careful about how they go out visiting people or socialising. In effect, it makes them appreciate the popular maxim that: 'if you go to Rome, you do what the Romans do'. They said, sometimes during the pre-ops training, their commanders will go to mission area to study the people, have a working report, and then, come and teach them about how to address cultural divergence issues to ensure compliance with cross-cultural practices.

For instance, as noted by an Army Major:

> *…. that was taken in a dual role during our concentration training; that is, the instructors from ACOTA who conducted the training, trying to expose the troops to it and part of those lessons was also given to those of us who went for the pre-deployment training to let the troops know what they hold in high esteem, what is precious to them and how to relate to them* ***(P1).***

Similarly, a Captain of the Ghana Army stated that:

> *…Not on its own but normally it's fused in the pre-ops training; personally, I did some courses online so that gave me an insight…. It plays an integral part, because most of the countries that we have been to, they are diverse in terms of culture. So, once you read yourselves into their culture, their way of doing things before you are deployed, they guide you in your work and that also limits the stress that comes to you. A typical example is South Sudan; you know most of the people are hostile so once you read about them you get to know their way of doing things, their custom and practices. Once you are deployed and you see certain things you don't get so surprised. You get accustomed to it because you know about it and because you have been briefed about it.* ***(P2).***

Another WO I remarked that:

> *…a short training, maybe once or twice, is conducted in cross-cultural education during pre-ops training. During the 5-week pre-ops training period, you will be educated on the mission area, the do's and don'ts, what to do, what not to do, their religion and other things…. We also attend some lectures (in the mission area during the actual deployment)*

> *that are not taught during the pre-ops training; that affords us the opportunity to meet other nationals…. **(P3).***

WO Foxtrot observed and disagreed that training in the mission area, relating to cross-cultural interactions does enhance their cultural knowledge to be able to deal with the local people or the other contingents. He, however, averred that they are educated to respect culture of the locals and other nationals within the contingent by not putting one culture ahead of theirs. In his own words:

> *…I think when I was preparing to go on the South Sudan mission, we had some training in cross-culture. In Bundase, what we normally do was just to prepare to portray various Ghanaian cultures, playing drums, dancing, and that's all.*

A SWO agreed and stated that violations of the cultural norms of the locals create problems not just for the individual peacekeeper but also the whole contingent. He indicated:

> *…. cross-cultural training is tailored to the specific mission or country. ...During pre-ops training, you are educated, on the parameters required of you as an individual and cautioned that any violations of local cultural norms affect the whole contingent ….. Emphasis is placed on Arabs/Muslim missions. Ultimately, you yourself will be very scared before you enplane for the mission. The focus for cross-cultural education is on first timers. **(P5).***

A female Lieutenant Colonel of the Ghana Army concurred and shed light on her experiences:

> *… When you are deployed in Lebanon, during a 2-week orientation period, cross-culture education is one of the main subjects they touch on. They teach you the religion, community, culture, and language (basic words/sentences and their meanings/ implications) so that you don't offend the locals in any way, shape, or form. I think knowing the culture of the place helps you to settle in very well, be able to blend and know what to do amongst the locals. Because, what one person will do in the mission area, can affect the whole mission **(P7).***

Another respondent, a Lieutenant Commander of Ghana Navy had a similar experience and stated that:

> *…. there was a 2-week training period on cross-cultural issues in Darfur organised by the mission headquarters for all new arrivals; that gave a better view or perspective of what really pertains on the ground; it helped but there are some facts which are usually not spoken of or heard **(P9).***

Additionally, a Colonel, medical and psychiatric doctor, explaining how cross-cultural training helps soldiers to avoid traumatizing or stressful cultural events stated that:

> *… "when you go to Rome, you do what the Romans do". I remember during the UNMIL (Liberia Leone) deployment, we were camped at a place called Tubmanberg. History had it that, one day the natives attacked and killed lots of the peacekeepers who were deployed in that community because the peacekeepers were going after their women. So, when we went there, we were very particular about our interactions with the opposite sex. These kinds of information, about the dos and don'ts, help a lot. During our tour of duty, we never had any situation where the whole community was against the contingent. There could be individual misunderstanding, quarrel and all that but we didn't have any situation where the whole community rose up against the unit…. We also strengthened the relations between the contingent and the local populace through effective civil-military assistance, by winning the heart and minds of the people, using medical outreach programmes, especially if the requirements were within our means. In certain instances, we could evacuate local casualties, from Tubmanberg to Monrovia, a distance comparable to Nkawkaw to Accra.* ***(P17).***

However, many of the respondents were of the view that the kind of cross-cultural training they received was not comprehensive enough. For others, the benefit of learning about cross-cultural management in business schools, and some online courses in cultural management, in different settings, was what helped them to appreciate cross-cultural nuances but not really the training they received at the pre-deployment and during deployment phases. For instance, Group Captain noted that "before we left for the mission, we were taught about some cultural shocks. It prepared my mind only that I think the lecture didn't capture how serious it was… **(P12)**

Beyond cross-cultural trainings, a few were of the view that Ghana's cultural and long heritage in peacekeeping has provided the platform for them to be well prepared for stressful or traumatising cross-cultural events. For instance, a Major noted that:

> *…. I believe, with our extensive peacekeeping roles which predate the 1960's, we have built a certain level of tact… the experiences which have been passed on from generation to generation helped us to be a bit tactical with locals. Ghanaian contingents have been able to handle situations which could have easily escalated into violence. We have been able to manage quite well as compared to other troops or nationalities. I think we have*

> *done quite well. Again, instead of being rather harsh, our culture, which requires us to be hospitable, has really helped us with our mission in South Sudan* ***(P1).***

5.2.6 Resilience and Mental Health of Military Expatriates

It has been suggested that people may react to depressing or traumatic events differently (Bober & Regehr, 2005; Keskinen & Simola, 2016; Loscalzo et al., 2018), and individuals with high level of personal resilience can easily adapt to maintain good health and performance (Hernández-Varas et al., 2019; García Silgo, 2013). Due to this, this study sought to ascertain the levels of resilience of individual soldiers who have participated in recent international peacekeeping missions and whether their personal resilience plays any significant roles in their ability to cope with potential psychological or mental health problems in the theatres during deployment. An analysis of the responses gathered indicated that the troops generally rated their personal resilience level to be quite high and cut across different genders and divisions of the Ghana Armed Forces. When asked how they developed their personal resilience, some said the pre-ops training during the pre-deployment phase, personal experiences, and experiences from previous peacekeeping missions improved their capacities; others said it is natural. They noted that the pre-ops training builds that resilience, aside the fact or belief that Ghanaians, by nature can adapt based on their individual personality. According to the respondents, their personal resilience has contributed significantly to cushioning them against triggers of mental health problems in the operational area.

A female Flight Sergeant stated:

> *…I can say that my personal resilience level is about 9 out of 10 because something happened during the mission area and I had to face it and move on… during the latter phase of the mission, I lost my husband. He died around August, and I was supposed to come in October. That was when I realised that I'm a strong woman; I'm that type - when you see me you may think I'm soft because I'm not an extrovert. I don't know whether that is my nature but within me… (laughs). Everybody was shocked…* ***(P14).***

Similarly, a male Navy SWO remarked that:

> *…. I would grade myself 9.5 for personal resilience on a scale of 1 to 10. Me, naturally, I eat everything, apart from human being (flesh). …I grew up with my grandmother and mother but more closely with my grandmother who was a Makola woman (trader). She told and taught me that life is not easy, so you must suffer. Wherever you find yourself, you have to try and survive. At any point in time, you don't have to complain, you must look at the end results. So, I take pride in that philosophy and, in whatever I'm doing, I do it well. …So, during the rebel attack on our UN camp, all that we had been taught before that day was the time to put it into practice, whether you learnt it properly or not, and it was a life and death situation. Me personally, I don't easily get scared; I adapt to every situation….* ***(P11).***

In the views of male Army Major on resilience, he stated:

> *…I built my resilience overtime. I would say it's 7 out of 10 now. Initially it wasn't. Looking at the nature of the work and the deployment, I had to bring my mind to the fact that I'm not going to get anything like home…so I must be up and doing* ***(P1).***

As a Warrant Officer Foxtrot puts it:

> *…. It's only the living ones that hear a bomb, so if you hear that (i.e., the sound of bombs) from time to time, it toughens you… It depends on the individual. Because what I'll see and not make noise, maybe you will see and talk about it, and it can easily aggravate your stress and anxiety levels* ***(P.4).***

Likewise, a female Lieutenant Colonel revealed her resilience levels as:

> *…. I can give myself 7 out of 10, or probably more than that, as the level of my personal resilience. …I can cope with challenges on mental health issues very well. …If you are able to cope in Ghana, you can cope anywhere* ***(P7).***

Expressing similar opinion, a male Navy Lieutenant Commander said:

> *…. I will give myself 8 out of 10 for resilience. My reason is that before travelling, the impression my family had about Sudan was very negative... however, and with my resilience nature I decided to use other means to reassure myself and always maintained focus because it was not going to last forever. At a point when I was so stressed, I was told to stay off for another 2 months. I decided to exercise more intensely, and used the period to learn the local language; then I got many friends and conditioned my mind to get accustomed to their way of life… It's an experience you need to go through, like others have, and expect that you will recover from it, naturally. When it happens like that you just take it in good stride; in the worst of it, you just smile and say to yourself, another day is coming and it's going to be better. Whenever I had discussions with other officers from other missions, they say that they were ambushed and all that. There and then, I conclude*

> *that mine is better, and I don't dwell on the effect but rather encouraged and keep assuring myself* ***(P9).***

In the same vein, a male Group Captain:

> *… One out of 10, I will put myself at 8 for personal resilience. I didn't give myself 9 or 10 because there are certain things that touched my emotions…I have learnt to speak to myself so much, positively. In peacekeeping, boredom can be one big problem especially when you are not given any assignment and therefore you are alone. Sometimes I tend to speak to myself…. (laughs). It's good but it can be boring* ***(P12).***

Relatedly, a SWO stated:

> *…I will give myself 10 out of 10 for personal resilience. This is because my past Air Force Commanders didn't joke with me because of my performances during EX TIGERS PATH, where l excelled brilliantly; I had always expected me to be part of the Air Force Team. Even, whilst I was on Ministry of Defence (MOD) duties, they 'manoeuvred' to get me to participate in the event. I believe myself and I know I have a lot of endurance. Although I am slim, I can endure a lot...* ***(P15).***

As can be seen from the foregoing, the sampled officers, men, and women have favourable perception or high rating about their personal resilience, which they confirmed was instrumental in their ability to adapt to actual and potential stressful personal situations, such as loss of spouse, depressing or traumatising operational conditions (e.g., rebel attacks). This position was affirmed by the Colonel medical and psychiatric Doctor at the 37 Military Hospital. In shedding further light on the role of resilience in alleviating mental health challenges among troops during deployments, he noted that Ghanaian soldiers are very resilient, and it is the reason why the level of PTSD incidence are relatively not high as it could have been because of the potential traumatising events or conditions they are exposed in their respective mission areas. He, subsequently, attributed it to the personal resilience of troops, the positive impact deployment training has on them, as well as decisions to send soldiers that are very healthy. He admitted that sometimes the growth or development of PTSD in some people could go beyond the normal range of 6 weeks to six months. Additionally, he opined:

…to be honest with you, one of the mental health issues that I had expected to see very much in the system is post-traumatic stress disorders. Why is it that among Ghanaian peacekeeping expatriates, the number of PTSD you see is relatively small? Theoretically, I would say that the pre-deployment training could account for the low PTSD. In these days, there is a conscious effort to send troops who are fit to the theatre, unlike previously, when you go through medical examination without physical training. This time, it's mandatory to pass the battle fitness test before you be deployed; I think this is helpful. I would also say that the Ghanaian is very adaptive, having gone to a rigorous pre-ops training and his/her natural resilience. Even in the face of adversity or difficulty, people can make humour out of nothing. My major concern has to do with an institutionalised medical or counselling program after deployment when troops return home (post-operations). I know if people develop problems in their respective units, they will certainly report and they will end up here (37 Military Hospital); but that is not the case. Some of the problems that we have among troops coming from mission areas are substance abuse disorders, a few depression cases, and symptoms of PTSD little. I also want to indicate that, with PTSD, there's always a time frame - usually, it should manifest itself from 6 weeks to 6 months. However, extant literature has it that a few takes about a year or two. You know mental health issues/studies, in our part of the world, is very low, because of lack of data. Here in the Hospital, we have been collecting a lot of data in the past 2 years now. I am convinced this current study is very good research. ***(P17).***

5.3 Chapter Summary

This chapter presented the qualitative results. It identified a range of stressful and traumatizing events that characterized most international peacekeeping environments and explored how military deployment practices (both pre-deployment and social support during deployment), cross-cultural competence and personal resilience prevent or alleviate mental health or psychological problems among military expatriates. The next chapter (Chapter Six) provides a combined discussion on both the quantitative findings (in Chapter Four) and the qualitative results as presented in this chapter (Chapter Five).

CHAPTER SIX

STUDY DISCUSSIONS

6.0 Introduction

The chapter discusses both the quantitative results and the qualitative findings. It covers the relationship between military deployment practices, cross-culture competence, resilience, and mental health outcomes among military expatriates of the Ghana Armed Forces.

6.1 Research Objective One: Military Deployment and Mental Health of Military Expatriates

The first research objective examined the influence of military deployment practices (pre-deployment selection and training; and social support during deployment) on mental health outcomes (depression and post-traumatic stress disorder) among Ghanaian military expatriates.

6.1.1 Pre-deployment Practices and Mental Health Outcomes

The qualitative empirical results showed that soldiers deployed in international peacekeeping operations tend to face mental health problems of stress, depression, anxiety, and PTSD experiences resulting from inherent challenges of suicide bombs and gun attacks; curtailment of personal freedom; harassment, racism, and discrimination; resources and logistics constraints; work overload; unfavourable weather and natural disasters; enduring stressful conditions back from home, among others.

This is in line with findings by some previous scholars (e.g., Molgjord et al., 2016; Lukey & Tepe, 2008) that military personnel are exposed to multiple sources of chronic, acute and potentially mental health problems including traumatic stress and depression. Hence, exposure to human massacres and atrocities (see Harvey et al., 2017; Keskinen & Simola, 2016; Ghaffarzadegan et

al., 2016; Smith, 2016); harassment and sexual violence (Fisher et al., 2015), among others, during deployment can lead to higher rates of self-reported distress, depression, and PTSD symptoms. This may be explained from the perspectives of the conservation of resources (COR) theory (Hobfoll, 1989). According to this theory, the occurrence of stress from traumatic events is due to three key conditions: the actual loss of personal resources, threat of loss of personal resources, and no gain of personal resources. Relating the COR theory to this study, it indicates that the risks and hazards that are associated with deployment environment increase mental health problems; they deplete or threaten the individual's pool of resources, thereby making them very susceptible to psychological problems resulting from their exposure to traumatic events (Hobfoll, 1989, 2002; Hobfoll & Ford, 2010).

Aside from the above, this study revealed that the pre-deployment practices of nomination, pre-ops training and medical examination (particularly blood pressure check, and HIV/AIDS test, popularly known among Ghanaian troops as 'Kwaku One-on-One' tend to be associated with temporary stress and anxiety among troops. This result is like the findings obtained by Sandweiss et al. (2011) and Bartone (1998) which suggested that mental health challenges like depression, anxiety and PTSD among troops can be high prior to the actual deployment. They attributed this situation to the uncertainty of getting to know their peers, time pressure and conflicts with family responsibilities during the preparatory stages (Bartone, 1998).

The result in this study means that given that nominated troops are coming from different units, integration process at the pre-ops training or concentration training can be stressful for some soldiers. Most importantly, it is so because passing the medical and pre-operational trainings are major consideration in deciding whether a solider is dropped or selected for deployment. Those

who could not make it fear or suffer stigmatisation from their colleagues as they would be perceived as having tested positive for HIV/AIDS, even though it could be due to other ailments like uncontrollable high blood pressure, among other health conditions that are not acceptable for international peacekeeping operations. As a result, those who even claimed that they were confident in their health status still described the medicals as a bit traumatising with some of them claiming that they lose appetite for food while others said they go into prayer mood to seek the intervention of God in passing the medical examinations.

Despite the above, an overwhelming majority of the respondents in the qualitative study were of the view that pre-deployment practices are instrumental in cushioning them against mental health problems and their triggers. This qualitative finding is consistent with the quantitative empirical results which showed that pre-deployment practices (selection and pre-ops training) has a significant negative influence on the level of PTSD, and depression as mental health outcomes among military expatriates. Thus, together, both the qualitative and the quantitative evidence imply that when pre-deployment practices are effective, incidences of depression and PTSD among military expatriates will be low but the likelihood of troops experiencing depression and PTSD will be high if pre-deployment practices are poorly executed.

This finding is like that of earlier researchers such as Collins et al. (2017), Ciccolo (2016) that pre-deployment preparations reduce the rate of PTSD among military veterans. It could imply that pre-deployment activities increase the readiness and preparedness of the individual service personnel in terms of their health and fitness, as well as the overall readiness of the military unit (Afful, 2017; Mackenzie & Miller, 2017; Military One Source, 2012; Laser & Stephens, 2011; Rotter & Boveja, 1999). This may be possible from the viewpoints of the conservation of resources (COR) theory

(Hobfoll, 1989) and the job demand-resources (JD-R) model because when pre-deployment practices, particularly, selection, training and preparation are done well, it can equip military personnel deployed in peacekeeping assignments with vital resources like skills and knowledge to be in a position to deal with the conditions that lead to depression and PTSD.

Indeed, insights gathered from the qualitative data suggest that pre-operational training involves a series of activities related to the readiness of the nominated troops for the assignment, as troops are taken through physical/battle fitness test, simulated possible attack, simulated possible crashes, and simulated possible ambushes to get them ready for the operation in theatre. This certainly would prepare the troops to be in a better position to deal with psychological problems like depression and PTSD related to their deployment in international peacekeeping theatres. This is because pre-deployment activities improve their abilities via opportunities for retraining and sharpening of skills, their confidence and battle readiness via stronger mental fortitude to cope to stressful, depressing and traumatic events. Moreover, given that the troops are deployed as a team, with members coming from different Services, formations, commands and units, pre-operational training within the pre-deployment phase offers the opportunity for the members to get to know and understand one another, as well as bond well for maximum cooperation and success during the actual mission or operational area, and subsequently, reduces possible interpersonal-related triggers of mental health problems during the actual deployment.

6.1.2 Unit Social Support during Deployment and Mental Health Outcomes

The study tested the effect of unit support during deployment on mental health outcomes (post-traumatic stress disorder, and depression). The quantitative results showed that unit support during deployment can significantly reduce post-traumatic stress disorder and depression. Similarly, the

qualitative results found that social support from unit leaders and colleagues during the actual deployment prevents or alleviates potential psychological problems like depression and PTSD during deployment. This means that mental health problems among troops on international peacekeeping assignment will be low if adequate social support system is present. Thus, socially supportive environment can alleviate PTSD and other mental health difficulties among troops on international peacekeeping.

Moreover, this result may be so because the qualitative interactions with the troops have revealed that soldiers enjoy a lot of support from their unit leaders and colleagues during the actual deployment including counselling and spiritual support from clergymen during deployment. As noted earlier, it is a norm or practice for Ghana Armed Forces to include Pastors and Imams in every international peacekeeping unit. Besides, commanders or unit leaders ensure that there is a cordial relationship among their contingents by bringing them together through social activities like sports and games. Also, although the team usually does not include psychologists, some commanders sometimes identify and select experienced members of the team to provide counselling, encouragement, advice, and other psychological support to soldiers, especially, the young and inexperienced members of the contingent. According to the respondents in the qualitative study, some unit leaders frequently check on their troops to be sure that they are all safe and sound. Due to this, they can see that a particular troops behaviour has changed and try to assist the soldier in question.

This result is consistent with the findings by some earlier researchers (Stanley et al., 2018; Zang et al., 2017; Collins et al., 2017; Gibbons et al., 2012; Harvey et al., 2011) that social support help people to effectively adapt during periods of stressful transition. For instance, Zang et al.'s (2017)

finding among military personnel with PTSD during their deployment in Iraq and Afghanistan indicated that social support from their peers and military unit support significantly reduced the severity of PTSD among the sampled military personnel. Stanley et al.'s (2018) study also reinforced that perception of belongingness and social support attenuate PTSD symptom severity. This suggests that provision of various forms of social support, including informational, emotional, esteem, network, and instrumental social support (Davis et al., 2015; Rossetto, 2015; Wilson et al., 2015; Cutrona & Russell, 1990) during deployment can aid soldiers to effectively deal with symptoms of PTSD and depression (Wilson et al., 2015; Cutrona & Russell, 1990). This means that a feeling and culture of institutional and social support, creating 'a feel-good mentality', and a high sense of belonging and camaraderie, is a panacea for resistance to stress, pain, injury, and trauma (Greenberg et al., 2008; Bolton et al., 2002). Similarly, it could mean that social support assists military personnel to generate meaning from experiences and sacrifices to reduce future risks of PTSD (Gray et al., 2004).

The present findings can be interpreted from the perspectives of the COR theory (Hobfoll, 1989 in the sense that military personnel on peace-keeping mission may consider the social support provided by their unit (and peers) during the deployment as an important resource for boosting their mental health outcomes since it can expand their range in coping with stressful and traumatic events. This is because it has been suggested that social resources of individuals, like social support, tend to increase their ability to cope with stressful situations and traumatic events (Hobfoll et al., 2006; Hobfoll et al, 1990).

6.2 Research Objective Two: The Direct Influence of Cross-cultural Competence on Mental Health of Military Expatriates

The second research objective sought to determine whether cross-cultural competence will have a significant positive effect on mental health outcomes of Ghanaian military expatriates. The quantitative results showed that the influence of cross-cultural competence on mental health outcomes is mixed, showing either a significant positive, or no effect (i.e., insignificant negative and insignificant positive). Specifically, it found that cross-cultural competence consistently showed no effect on PTSD but suggests that it can either have no effect or a positive effect on depression, thus, mixed outcomes. The mixed results mean that the effect of cross-cultural competence of military expatriates on their mental health outcomes is unstable. It could mean that troops' level of cross-cultural competence was not adequate to cope sufficiently with mental health problems that are induced by cultural shocks and cultural-related issues in international peacekeeping theatres. This is important because the participants this study interviewed indicated that problems with language, foods and cultural norms can be depressing, stressing and traumatizing to them. This is like Wesołowska et. al.'s (2018) findings in a non-military setting (i.e., native, and foreign-born nurses) in Finland that out of the cross-cultural competence dimensions of empathy, skills, positive attitudes, and motivation, only cross-cultural empathy provides significant protection against distress, and sleep problems in both native and foreign-born nurses, thereby implying a mixed outcome.

However, the qualitative findings of this study showed that cross-cultural training during concentration/pre-operational training and, sometimes in the operational area, coupled with the Ghanaian long history in international peacekeeping, to a large extent, has built their capacity to cope with potential psychological effects or mental health problems of cross-cultural shocks. Thus,

putting both qualitative and quantitative findings together, it can be cautiously implied that cross-cultural competence is generally useful in avoiding traumatising and depressing experiences related to the culture of the locals or mission areas.

This finding is therefore similar to Wang et al.'s (2015) results in the United States which indicated that cross-cultural competence has a significant positive relationship with subjective wellbeing among international students, and Stockert's (2015) study that cultural intelligence positively predicted military expatriates' adjustment in United States Air Force, as well as Hajjar's (2010) assertion that cross-cultural competence can enhance the success of troops deployed in international peacekeeping theatres. The issue of the role of the Ghana Armed Forces rich experience in international peacekeeping on cultural buffers against potential culturally-inducted mental health problems is consistent with the assertion that it is possible for cultural knowledge to be transferred from one culture to another (Watson et al., 2013), and cross-cultural competence of military personnel enhances the ability of military institutions to develop a cohesive and adaptable force from different cultural settings (Mackenzie & Miller, 2017; Hajjar, 2010) because they gain or preserve vital resources to ensure that they are in a position to cope with stress, depression and PTSD as suggested by the COR theory and the JD-R model (Demerouti et al., 2001; Hobfoll, 1989).

This could mean that training in the culture of the mission areas help troops from violating the cultural norms and practices of the locals which may elicit an attack. As they noted, the training made them become more conscious with the relationships with the opposite sex in Arab countries like Lebanon, Sudan and South Sudan. In these cultures, it is 'haram' (out of the culture of the people) for male troops or foreign men to talk to women; but it is a normal practice in Ghana and

in other societies. Hence, the training they received concerning such cultures requires that they constantly keep such norms in mind because once you slip it attracts angry reaction from the populace. Such angry reactions in the form of violent attacks from the local people, in the view of some of troops, were even more daunting than the military job they had in the mission itself.

Hence, it indicates that troops with adequate level of cross-cultural competence would be more exposed to the dos and don'ts of the people in their mission areas, and subsequently, alleviate the effects of potential cross-cultural triggers of psychological problems. In effect, it makes them appreciate the popular maxim that 'if you go to Rome, you do what the Romans do'. This, as noted in Chapter five, may be possible because during the pre-ops training, some commanders go to mission area to understand the cultural dynamics of the people, have a working report, and then, come and teach them about how to address cultural divergence issues to ensure compliance with cross-cultural practices. The cross-cultural trainings, according to the participants, are offered for just a few days as lectures or seminars as part of their pre-operational training but others were lucky to have received about one to two weeks training in cross-cultural management issues during the deployment in the mission areas.

While all the troops interviewed agreed that such trainings are really useful for their mental wellbeing and the success of their mission as a whole, many of them consider the kind of cross-cultural training they received not to be comprehensive enough. And what has helped some troops to be in position to deal with cultural-induced psychological problems was the benefit of learning about cross-cultural management in business schools, and online courses, and not really the training they received at the pre-deployment and during deployment phases.

6.3 Research Objective Three: Moderating Effect of Cross-cultural Competence on Military Deployment Practices and Mental Health of Military Expatriates

The third objective sought to determine whether cross-cultural competence will moderate the relationship between military deployment practices and mental health outcomes of Ghanaian military expatriates. The empirical results (based only on the quantitative study) showed that the interactive term for cross-cultural competence and pre-deployment selection and training has a significant negative influence on post-traumatic stress disorder and depression. This consequently confirmed that cross-cultural competence moderated the link between pre-deployment practices and mental health outcomes among military expatriates.

This may be possible because as noted, the limited evidence suggests that cross-cultural competence may improve adjustments and mental health-related outcomes (Wesołowska et. al., 2018; Stockert, 2015; Wang et. al., 2015). Similarly, pre-deployment preparation (Collins et al., 2017) may improve the mental health outcomes of military personnel. This suggests that cross-cultural competence and pre-deployment practices may interact to boost the mental health of military expatriates. It implies that pre-deployment activities of selection and training reduce incidences of depression and PTSD among troops deployed in international peacekeeping theaters if a troop possesses a high level of cross-cultural competence, relative to those with weak or low level of cross-cultural competence, thereby revealing a complementary role between pre-deployment interventions and cross-cultural competence in tackling mental health problems among military expatriates.

However, the interactive term for cross-cultural competence and unit support during deployment has insignificant negative influence on post-traumatic stress disorder and depression. Thus, this

empirical evidence did not support the second sub-hypothesis three (H3b) on the issue of moderation. This is a bit surprising given that Ghanaian troops, as indicated earlier, tend to receive reasonable level of social support during the actual deployment in the mission area, and they are also given some level of training in cross-cultural issues. Hence, it was reasonable to expect that both should be able to play complementary roles in addressing mental health challenges among Ghanaian military expatriates. However, the empirical evidence indicates that cross-cultural competence and social support during deployment do interact to boost the mental health of military expatriates. This lack of complementary roles of social support during deployment and cross-cultural competence could partly be attributed to the weak and, sometimes, mixed outcomes (see Chapter Four) of the cross-cultural competence on the selected mental health outcomes, and some troops' feeling that trainings in cross-cultural management is not adequate as it should be. It thus, also opens avenues for future research to explore it further.

6.4 Research Objective Four: The Direct Effect of Resilience on the Mental Health of Military Expatriates

The fourth research objective sought to assess whether resilience will have a significant effect on the mental health outcomes of Ghanaian military expatriates. The quantitative results showed that resilience negatively and significantly predicted post-traumatic stress disorder and depression. This means that soldiers with high personal resilience are less likely to experience depression and PTSD compared to those with low or weak personal resilience. Relatedly, and indeed, the qualitative findings revealed that Ghanaian military expatriates across both genders have favourable perception or high rating about their individual resilience, which they confirmed was instrumental in their ability to adapt to actual and potential stressful personal situations and a

depressing or traumatising operational conditions like rebels' attacks. This means that personal resilience is a useful personal resource for cushioning military officers especially those on international peacekeeping assignments against triggers of mental health problems in the operational area. This may also be so because Ghanaians by nature are able to adapt, based on their individual personality.

This result is consistent with findings of some previous researchers (e.g., Hughes et al., 2018; Zang et. al., 2017; Ojedokun & Balogun, 2015; Lee et al., 2013; Ippolito et al., 2005; Dirkzwager et. al., 2003). For instance, Zang et. al. (2017) found that the trait of resilience significantly reduces the severity level of PTSD among military officers deployed in Iraq and Afghanistan. Relatedly, Lee et al. (2013) suggested that resilience improves the level of mental health by reducing the negative impacts of traumatic events among members of the Canadian Armed Forces who deployed in overseas assignment. This means that resilience can buffer against PTSD and depression in military personnel who are exposed to early-life and combat trauma (Green et. al., 2014; Galatzer et. al., 2013; Pietrzak et. al., 2011). This may be so because resilience provides useful protective mechanisms in the form of internal locus of control, positive-minded and optimism that increase adaptation in environments with significant adversities (e.g., Bartone et al., 2012; Pietrzak et al., 2011; Connor & Davidson, 2003; Werner & Smith, 1992). This give credence to the suggestion of the theory of resilience that soldiers who are resilient are less likely to develop mental health problems such as PTSD and depression when exposed to traumatic events and depressing conditions (Mazzeo et al., 2002; Beckham et al., 2000).

6.5 Research Objective Five: Moderating Effect of Resilience on Military Deployment Practices on Mental Health of Military Expatriates

The fifth and final objective aimed to assess the moderating role of resilience in the relationship between military deployment practices and mental health outcomes of Ghanaian military expatriates. The empirical results (based solely on the quantitative study) showed that the interactive term for resilience and pre-deployment selection and training has a significant negative influence on post-traumatic stress disorder and depression, indicating presence of moderating effect. This implies that personal resilience of military officers enhances the negative effect of pre-deployment practices (selection and training) on incidences of mental health problems among troops. This is consistent with the views of several soldiers that they developed their personal resilience through the pre-operational training aspect of the pre-deployment phase, personal experiences, and experiences from previous peacekeeping missions; although others said it is natural. This implies that pre-operational training and past deployment experiences is a useful way of building soldiers' resilience to cope with traumatising and depressing conditions.

This is similar to the assertion by some scholars (Dunt, 2009; Bowling & Sherman, 2008) that whiles in camp for concentration/pre-operational training, soldiers are educated and given adequate information on the specific activities they are expected to carry out at the operational area, and the intensity of the physical training is increased to make them more physically prepared and resilient. However, the interactive term for resilience and unit support during deployment has insignificant negative influence on post-traumatic stress disorder and depression. This is a suggestion that resilience does not moderate the relationship between military unit social support during the actual deployment and mental health outcomes. This means that the resilience of

military expatriates may not improve or worsen the link between unit social support during deployment and the mental health of military personnel.

CHAPTER SEVEN

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.0 Introduction

This chapter presents the summary, conclusion, recommendations, and future research implications. It begins by providing a brief overview of the motivation for the study, the research methods that were adopted to achieve the research objectives and questions, and then, thematically presented the summarised kinds. The summary of findings presented under the following themes: Effect of military deployment on the mental health of military expatriates; the direct effect of cross-cultural competence on the mental health of military expatriates; moderating effect of cross-cultural competence on military deployment practices on mental health of military expatriates; the direct effect of resilience on the mental health of military expatriates; and moderating effect of resilience on military deployment practices on mental health of military expatriates. Furthermore, the study draws conclusions from the findings, discusses the practical and theoretical implications of the findings, and ends with research limitations and recommendations for future research.

7.1 Summary

International peacekeeping theaters are characterised by stressful events and traumatizing conditions with negative implications for the mental health of deployed troops. Soldiers deployed in international peacekeeping missions are at the risk of experiencing various forms and degrees of mental health problems, ranging from PTSD and depression. As a result, there is a heightened scholarly interest in understanding how military deployment practices contribute towards averting and minimising mental health cases such as PTSD and depression. Similarly, understanding the role of resilience in mental health outcomes and military deployment practices is important as it

can help troops who encounter traumatic and stressful events to easily adapt to maintain good health and performance. Likewise, cross-cultural competence may be critical in dealing mental health problems among troops directly and indirectly by complementing the role of military deployment practices. However, the relationship between military deployment practices, cross-cultural competence, resilience and mental health of military expatriates has been less examined in the literature.

Consequently, anchoring the arguments on the COR theory (Hobfoll et al., 2006; Hobfoll et al., 1990; Hobfoll, 1989), JD-R model (Demerouti et al., 2001), resilience theory (Garmezy, 1970), and extant literature on military deployment practices (e.g., Afful, 2017; Mackenzie & Miller, 2017; Davis et al., 2015; Rossetto, 2015; Wilson et al., 2015; Laser & Stephens, 2011; Rotter & Boveja, 1999) and mental health among military personnel (Harvey et al., 2017; Osório et al., 2017; Ghaffarzadegan et al., 2016; Keskinen & Simola, 2016; Molgjord et al., 2016; Fisher et al., 2015) as its theoretical and conceptual frameworks, this study examined the influence of military deployment practices (pre-deployment selection and training, and unit social support during deployment) on mental health outcomes (PTSD and depression) of Ghanaian contingents with international peacekeeping experience while assessing the moderating roles of resilience and cross-cultural competence.

To achieve this, study adopted the pragmatism paradigm and employed sequential mixed research method. Hence, both qualitative and quantitative approaches were used in data collection to confirm, cross-validate, or corroborate findings across varying situations or phenomena to appropriately answer the research questions. The study targeted military expatriates of the Ghana Armed Forces across various ranks, including serving generals, senior officers in command, senior

officers not in command, junior officers, warrant officers, other ranks, and units (combat, administrative, logistics, communications). It included those who are currently in deployment, just returned from deployment, and those who have had at least one deployment experience in the last six years (that is, from 2016 - 2021) but has again gone through the processes of deployment preparation for impending deployment in international peacekeeping operations.

The study used this target population because, as noted, international peacekeeping activities involve exposure to multiple sources of stressful and traumatic events that can eventually lead to deterioration in the mental health capabilities of the soldiers. Besides, Ghana Armed Forces has consistently been ranked among the top ten countries that contribute personnel for UN operations over the last twenty years. During these periods, the country has had the fourth highest number of fatalities after India, Bangladesh, Nigeria, and Pakistan (see UNDPKO, 2021b).

The total target population was 15,808 troops. This is based on the data available from the Ghana Armed Forces on deployed troops in international peacekeeping missions in the years under consideration. Using Krejcie and Morgan's (1970) sample size formula, a sample of 375 was scientifically adequate. The researcher, however, increased it to 450 respondents for the quantitative study to cater for potential problems of non-response and improper completion of the administered questionnaires.

After the successful retrieval of 434 questionnaires and keying of responses, 405 were found to be usable for analyses. Moreover, the study recruited additional eighteen (18) respondents for the qualitative study. The study applied the stratified and simple random to select the research participants for the quantitative study, and the stratified and purposive sampling methods were used to select the respondents across the various strata based on their experience, knowledge, and

frequency of participation in international peacekeeping operations. The quantitative data were analysed using descriptive statistics, Pearson correlation, and SEM with the aid of SPSS version 22.0 and AMOS version 21.0 software while the qualitative data was analysed using thematic data analysis. The following are summary of the key findings under their respective research objectives:

7.2 Objective One: Effect of Military Deployment and Mental Health of Military Expatriates

The first research objective sought to examine whether military deployment practices (selection, training and preparation, social support during deployment) will have a significant influence on mental health outcomes of Ghanaian military expatriates. The results indicated that prevalence of suicide bombs and gun attacks; curtailment of personal freedom; interactional stressors (harassment, racism, and discrimination); resources and logistics constraints; unfavourable weather and natural disasters; as well as stressful issues back home, in international peacekeeping operations increase the vulnerability of military expatriates' psychological problems such as stress, depression, anxiety and PTSD experiences.

In addition, it found that pre-deployment practices of nomination, pre-ops training and medical examination (particularly blood pressure check, and HIV/AIDS test, popularly known among Ghanaian troops as 'Kwaku One-on-One' tends to be associated with temporary stress and anxiety among troops. That being, overall, both qualitative and quantitative evidence demonstrate that pre-deployment practices (of selection and training) have a significant negative influence on incidences of depression and PTSD among military expatriates. Similarly, the study found that military unit support during deployment can significantly reduce post-traumatic stress disorder and depression. Consequently, the first hypothesis (H1) which argues that military de*ployment practices (pre-deployment selection and training, and unit support during deployment) will*

negatively influence mental health outcomes (post-traumatic stress disorder, and depression) of military expatriates, is confirmed by the empirical evidence, and overall, the first research objective is achieved.

7.3 Objective Two: The Direct Effect of Cross-cultural Competence on the Mental Health of Military Expatriates

The second hypothesis sought to determine whether cross-cultural competence will have a significant effect on mental health outcomes of Ghanaian military expatriates. The study found that although cultural shocks and cultural-related issues induce psychological problems among troops deployed in international peacekeeping theatres, quantitatively, cross-cultural competence showed mixed (mostly insignificant negative in general but one positive result in relation to depression) influence on mental health outcomes of depression and PTSD, but qualitatively, cross-cultural competence reduces potential mental health problems of cross-cultural shocks. Thus, putting both qualitative and quantitative findings together, it can be cautiously implied that cross-cultural competence can be generally useful in reducing mental health problems of depression and PTSD among troops. Thus, hypothesis two (H2) which states that *cross-cultural competence will have significant negative effects on the mental health outcomes (depressions and PTSD) of military expatriates of the Ghana Armed Forces*, is supported.

7.4 Objective Three: The Moderating Effect of Cross-cultural Competence on Military Deployment Practices and Mental Health of Military Expatriates

The third objective sought to determine whether cross-cultural competence will moderate the relationship between military deployment practices and mental health outcomes of Ghanaian military expatriates. The results showed that the interactive effect of cross-cultural competence

and pre-deployment selection and training on mental health outcomes (post-traumatic stress disorder and depression) was negative and statistically significant. However, cross-cultural competence and unit support during deployment has insignificant negative interactive influence on post-traumatic stress disorder and depression. Thus, hypothesis three (***H3)*** which argues that *cross-cultural competence will significantly moderate the relationship between military deployment practices and mental health outcomes of military expatriates,* is partly supported by the empirical evidence.

7.5 Objective Four: The Direct Effect of Resilience on the Mental Health of Military Expatriates

The fourth research objective sought to assess whether resilience will have a significant effect on the mental health outcomes of Ghanaian military expatriates. The results showed that Ghanaian military expatriates generally consider themselves to be resilient. The empirical evidence further revealed that resilience negatively and significantly predicted PTSD and depression. This provided empirical evidence to support hypothesis four ***(H4)*** which states that *resilience will significantly and positively influence the mental health outcomes of military expatriates.*

7.6 Objective Five: Moderating Effect of Resilience on Military Deployment Practices on Mental Health of Military Expatriates

The fifth and final objective aimed to assess the moderating role of resilience in the relationship between military deployment practices and mental health outcomes of Ghanaian military expatriates. The study found that resilience and pre-deployment selection and training have a significant negative interactive effect on mental health outcomes of PTSD and depression.

However, the interactive effect of resilience and unit support during deployment on mental health problems of depression and PTSD was negative but statistically insignificant. Thus, hypothesis five (***H5)*** which suggests that *resilience will significantly moderate the effect of military deployment practices on mental health outcomes (depression and PTSD) of military expatriates*, is partly supported by the empirical evidence.

7.7 Contributions to Research

This research contributes to the literature on military deployment practices and mental health research. It demonstrates from the perspectives of the COR theory (Hobfoll, 1989) that pre-deployment practices of selection and operational training, and unit support during deployment enhances the capacity of military expatriates' resources to deal effectively with mental health outcomes of depression and PTSD. This is a contribution to the literature as this relationship is under-researched because existing studies have examined the influence of military deployment practices on mental health focused mainly on factors such as deployment environment (e.g., Dami et al., 2018; Afful, 2017; Osório et al., 2017), nature of the deployment (MacGregor et al., 2012; De Burgh et al., 2011), social support and unit cohesion prior to deployment (e.g., Zang et al., 2017), social support from family and friends (Collins et al., 2017; Fisher et al., 2015), and military-civilian transition and reintegration experiences (Afful, 2017; Necku, 2015) on PTSD among deployed soldiers.

Furthermore, the extant cross-cultural competence literature is overly focused on psychological distress and adjustments of expatriate managers to the neglect of military expatriates. Military expatriates are different in different ways from mainstream expatriates in international business and international education context. Relatedly, while cross-cultural competence has been a priority

for major military institutions over the years, empirical studies on it within military population and context remains at the infancy stage (Crowley-Henry et. al., 2014; Gallus et. al., 2014; Selmer & Fenner, 2009), and the few studies available were mainly limited to antecedents of cross-cultural competence development in military personnel (e.g., Trejo et. al., 2015; Hajjar, 2010). Accordingly, this study provides new empirical evidence to fill the gap in the literature by showing that cross-cultural competence can help military personnel deployed in international peacekeeping theatres to cope with mental health problems like PTSD and depression.

In addition, the study contributes to the resilience theory among military population by suggesting that resilience can buffer against PTSD and depression in military personnel who are exposed to stressful and traumatizing conditions during deployment. It similarly adds to the literature by indicating that it is possible for the role of military deployment practices at the pre-deployment stage to reduce mental health problems at greater levels of individual resilience. Surprisingly however, it does not affect the link between unit support during deployment and mental health problems of depression and PTSD. Consequently, it extends Afful's (2017) research. Afful (2017) found that while resilience did not significantly moderate the influence combat experience on mental health symptoms, it has significantly moderated the relationship between negative work reintegration experiences and mental health problems (consisting of anxiety, depression as well as PTSD) among post-deployed soldiers of the Ghana Armed Forces. This present study thus, offers original addition by focusing on the pre-deployment and during actual deployment stages of a typical military deployment circle, which was not the case in Afful's (2017) research.

Moreover, it contributes to knowledge by demonstrating that cross-cultural competence of military expatriates can strengthen the negative role of pre-deployment practices of selection and

operational training on depression and PTSD but does not affect the relationship between unit social support during deployment and mental health outcomes of depression and PTSD.

Finally, it makes a contextual contribution by focusing on military expatriates with respect to the topic in Ghana since the African context generally and particularly the Ghanaian military setting has not been given the needed research attention along the line of this research. It similarly adds very useful empirical evidence from a generally less-examined population and context.

7.8 Conclusion

This study, using both qualitative and quantitative data from Ghanaian soldiers with recent international peacekeeping experience, assessed the role of military deployment practices, resilience and cross-cultural competence on mental health outcomes of depression and PTSD. Based on the above findings the study concluded that: First, since there are several triggers of stressful and traumatizing conditions in international peacekeeping theatres, it is inferred that international peacekeeping operations are inherently dangerous to the mental or psychological wellbeing of the deployed troops. However, effective military deployment practices have the capacity to minimise or even prevent incidences of depression and PTSD among troops deployed in international peacekeeping operations. When pre-deployment practices of selection and operational training are effective, incidences of depression and PTSD among military expatriates will be low but the likelihood of troops experiencing depression and PTSD will be high if pre-deployment practices are poorly executed. Likewise, social support from unit leaders during the actual deployment can prevent or alleviate psychological problems like depression and PTSD during deployment among military expatriates. This means that people can utilise their social

networks as a psycho-social resource to improve their mental health outcomes in the face of difficult and traumatic situations.

Second, it is possible for individual soldiers with adequate cross-cultural competence to excel psychologically in different mission areas and diverse cultural settings especially in the context of international peacekeeping operations. Thus, deployed troops with adequate level of cross-cultural competence are less likely to experience PTSD, depression and other mental health problems when exposed to traumatizing and stressful cultural shocks in foreign cultural environments, by applying appropriate cross-cultural skills, knowledge, and behaviours as coping mechanisms. Third, the significant negative effect of pre-deployment selection and training on mental health outcomes of depression and PTSD is stronger among troops with high levels of cross-cultural competence relative to those with low cross-cultural competence. Thus, cross-cultural competence enhances the negative influence of pre-deployment practices of selection and training on incidences of depression and PTSD among Ghanaian military expatriates.

Fourth, personal resilience improves the mental health of people who encounter traumatic and stressful events by reducing the incidence or occurrence of depression and PTSD among soldiers deployed in international peacekeeping operations. This means that soldiers with high personal resilience are less likely to experience depression and PTSD compared to those with low or weak personal resilience. Finally, while the significant negative effect of pre-deployment selection and training on mental health problems of depression and PTSD is stronger among soldiers with high level of personal resilience, the negative effect of social support during deployment on depression and PTSD does not change at differing levels of individual resilience.

7.9 Limitations and Future research

This study may be limited since it used cross-sectional data in understanding mental health problems among military troops. Given that mental health conditions have the tendency to develop or grow over a period; it would be useful for future studies to employ longitudinal research to investigate the topic. In this case, it is recommended that if possible (in terms of resources and cooperation from military personnel and the military high command) the mental health of the troops should be assessed prior to their deployment practices of nomination/selection and during pre-operational training, after pre-deployment practices, during the actual deployment and after the deployment. This will ensure that the incidences of mental health problems are tracked appropriately, and which deployment practices are effective against incidences and prevalence of mental health problems among military officers generally and military expatriates. Again, future research may conduct sub-group analyses of military expatriates by their service categories and duties during deployment.

Moreover, this study may be limited to Ghanaian troops only. So future studies should be extended to military expatriates in other countries. Future researchers may also look at conducting comparative analyses across different national military contingents and units. Besides, this study focused solely on soldiers or military officers and so its application may be limited to other security agencies like the police service/force. Given that Ghana has a tradition of deploying police officers in international peacekeeping, future studies may examine the relationship between police force deployment practices, resilience, cross-cultural management, and mental health outcomes. If possible, there should be a comparative assessment between Ghanaian military contingents and

police service/force that are deployed in similar international peacekeeping environments to enrich the literature and further enhance our understanding of the topic.

Finally, the present study focused on only depression and PTSD as mental health outcomes. Hence, the study recommends that future researchers should explore other mental health challenges like anxiety, stress, etc. in addition to depression and PTSD. Similarly, this study's findings are limited to active military personnel and not retired officers. Future studies may explore the experiences of military veterans and contrast with the active officers, especially with respect to growth in PTSD.

7.10 Recommendations

7.10.1 Practical Implications

First, emphasising effective regime of pre-deployment selection and training, and unit support during the actual deployment would prepare the troops to be in a better position to deal with psychological problems like depression and PTSD. Given that pre-deployment practices of selection and pre-operational training are instrumental in cushioning soldiers against mental health problems and their triggers, the study recommend that military commanders and unit heads leading troops on international peacekeeping missions should build the capacity of the contingents to effectively deal with mental health challenges. This also means encouraging troops to constantly check their health status and avoid risky behaviours that may bring about temporary mental health issues at the initial stages of the deployment process. It further means training selected troops more on stress management as well as enhancing their capacity to effectively identify symptoms of various mental health problems to facilitate early detection and treatment.

Second and relatedly, socially supportive environments can alleviate PTSD and other mental health difficulties among troops on international peacekeeping so military unit support during deployment is necessary to reduce post-traumatic stress disorder and depression among deployed soldiers in international peacekeeping theatres. Hence, commanders and unit leaders should endeavour to provide the necessary psychological counselling, advice and emotional encouragement to troops going through any stressful and traumatizing experience. The spiritual support from clergymen during deployment should be maintained and effectively institutionalised in military deployments.

Third, the study's findings suggest the need to increase the intensity of cross-cultural training to effectively build the cross-cultural competence of military personnel adequately so as to be in a position to fight off psychological problems that may be culturally induced during the deployment. Such training should focus on equipping them with cultural knowledge, effective skills, and behaviours to enhance their ability to understand, adjust and thrive in different cultural environments that are different from their own by making them become more aware and culturally conscious about the dos and don'ts of the people in their mission areas.

Fourth, military personnel should engage in activities that strengthen their own innate characteristics, socialization, and adoption "soldier never dies" mentality, to deliberately build their personal resilience. Military units and commanders can also organise resilience building activities – extreme physical exercises, such as swimming in a full combat gear, mountaineering, and high-grade adventure training for troops intended for or in international peacekeeping theatre to help them acquire or deal with mental health threats.

7.10.2 Policy Recommendations

The findings have major policy implications for key stakeholders in international peacekeeping locally, such as the Ghana Armed Forces and Ministry of Defense, as well as internationally, the UN peacekeeping missions. The findings that international peacekeeping missions are associated with substantial risk for mental health, makes it imperative to prioritise psychological problems among troops in future peacekeeping innovative policy formulation and implementation. This may include policies on recruitment and attachment of professional psychologists to complement the spiritual work of the clergymen (Pastors and Imams) during actual deployment.

Also, policy interventions for future military deployment should recognise and promote the potential facilitating role of resilience and cross-cultural competence in enhancing the negative effect of pre-deployment practices on depression and PTSD among military troops.

Furthermore, policies on recruitment/enlistment, training, welfare, administration should be formulated to promote mental wellbeing of military officers generally and particularly those deployed in international peacekeeping theatres.

Again, policies that encourage harassment, racism and discrimination during deployment should be promoted in all UN missions to prevent interactional-induced mental health challenges.

References:

Aboagye, F. B., & Bah, A. M. (2004). Liberia at a Crossroads: A preliminary look at the United Nations Mission in Liberia (UNMIL) and the protection of civilians. *Institute for Security Studies Papers*, *2004*(95), 20.

Aboagye, Festus. (1999). ECOMOG: A Sub-Regional Experience in Conflict Resolution, Management and Peacekeeping in Liberia. Accra: Sedco Publishing.

Aguinis, H., & Glavas, A. (2019). On corporate social responsibility, sensemaking, and the search for meaningfulness through work. Journal of Management, 45, 1057–1086.

Anyidoho, H. K. (1997). Guns over Kigali: The Rwandese Civil War-1994. 39 Accra: Woeli Publishing Services.

Abbe, A., Gulick, L. M. V., & Herman, J. L. (2008). Cross-*cultural competence in army leaders: a conceptual and empirical foundation.* Virginia: U.S. Army Research Institute for the Behavioral and Social Sciences.

Abi-Hashem, N. (2020). Resiliency and culture: An interdisciplinary approach. *RUDN Journal of Psychology and Pedagogics*, *17*(4), 586-603.

Abou-Hodeib, T. (2011). Taste and class in late Ottoman Beirut. *International Journal,of Middle East Studies*, *43(3)*, 475-493

Abugre, J. B., & Debrah, Y. A. (2019). Assessing the impact of cross-cultural communication competence on expatriate business operations in multinational corporations of a Sub-Saharan African context. *International Journal of Cross-Cultural Management*, *19*(1), 85-104.

Adler, A. B., & Castro, C. A. (2013). An occupational mental health model for the military. *Military Behavioral Health*, *1*(1), 41-45.

Adler, A. B. & Dolan, C. A. (2006). Military hardiness as a buffer of psychological health on return from deployment. *Military Medicine, 171(2)*, 93.

Afful, J. (2017). *The effect of combat and reintegration experiences of post-deployed soldiers of the Ghana Armed forces* (published Doctoral thesis), University of Ghana, Legon.

Agah, N. N. (2019). *The Relationship between Post Deployment Transition, Psychological Well-Being and Family Relationship among Military Personnel in Ghana* (published master's dissertation, University of Ghana, Legon).

Agaibi, C. E., & Wilson, J. P. (2005). Trauma, PTSD, and resilience: A review of the literature. *Trauma, Violence, & Abuse*, *6*(3), 195-216.

Aguinis, H., Gottfredson, R. K., & Joo, H. (2013). Best-practice recommendations for defining, identifying, and handling outliers. *Organizational Research Methods*, *16*(2), 270-301.

Ahiawodzi, A. K. (2011). *Business statistics*. Accra: Sahabia Publications.

Akinsulure-Smith, A. M. (2017). Resilience in the face of adversity: African immigrants' mental health needs and the American transition. *Journal of Immigrant & Refugee Studies*, *15*(4), 428-448.

Alizadeh, S., & Chavan, M. (2016). Cultural competence dimensions and outcomes: a systematic review of the literature. *Health & Social Care in the Community*, *24*(6), e117-e130.

Allday, R. A., Newell, J. M., & Sukouskyy, Y. (2020). Burnout compassion fatigue and professional resilience in caregivers of children with disability in Ukraine. *European Journal of Social Work, 23(1)*, 4-17.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders*. Washington, DC.: American Psychiatric Publishing.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5*. Washington, DC: American Psychiatric Publishing.

Amponsah-Tawiah, K., & Mensah, J. (2016). Occupational health and safety and organisational commitment: evidence from the Ghanaian mining industry. *Safety and Health at work, 7(3)*, 225-230.

Amponsah-Tawiah, K. (2013). Occupational health and safety and sustainable development in Ghana. *International Journal of Business Administration, 4(2)*, 74.

Amponsah-Tawiah, K., & Dartey-Baah, K. (2011). Occupational Health and Safety: Key Issues and Concerns in Ghana. *International Journal of Business and Social Science 2(14.)*

Anderson, W. (2002). The Cultivation of Whiteness: Science, Health and Racial Destiny in Australia. Melbourne University Press.

Ang, S., & Van Dyne, L. (2008). Conceptualization of cultural intelligence: Definition, distinctiveness, and nomological network. *Handbook of cultural intelligence: Theory, measurement, and applications*, 3-15.

Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., & Tay, C. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. *Management & Organization Review, 3*, 335-371.

Aning, K., & Edu-Afful, F. (2013). Unintended Impacts and Consequences of Peacekeeping Economies in Liberia. *International Peacekeeping, 20(1)*, 17-32.

Anku-Tsede, O., & Dedzo, B. Q. (2017). Cross-cultural competence and functional diversity in business negotiations: a developing country's perspective. In *Advances in Cross-Cultural Decision Making* (pp. 85-98). Springer, Cham.

Antonakis, J. (2017). On doing better science: From thrill of discovery to policy implications. *The Leadership Quarterly, 28.* 5–21.

Antonakis, J., Bendahan, S., Jacquart, P., et al. (2010). On making causal claims: A review and recommendations. *The Leadership Quarterly, 21.* 1086–1120.

Applegate, D. (2003). *Lessons learned from the PTSD group action, service personnel board, a paper by the Stress Project Leader*. London, UK, MOD.

Ashkanasy, N. M. (2010). Publishing today is more difficult than ever. *Journal of Organizational Behavior, 31.* 1–3.

Asmundson, G. J. G. (2000). *VAC Canadian Forces Survey analysis*. Regina (SK): Department of Veteran Affairs.

Asmundson, G. J. G., Stein, M. B., McCreary, D. R. (2002). Posttraumatic stress disorder symptoms influence health status of deployed peacekeepers and nondeployed military personnel. *Journal of Nervous Mental Disorder, 190(12),* 807–815.

Atinc, G., Simmering, M. J. & Kroll, M. J. (2012). Control Variable Use and Reporting in Macro and Micro Management Research. *Organisational Research Methods, 15*, 57-74

Atinc, G. & Simmering, M. (2022). Control Variables in Management Research. Oxford Research Encyclopedia of Business Management. (Retrieved 7 Jan 2022 from https://oxfordre.com/business/view/10.1093/acrefore/9780/190224851.001.0001/acrefore-9780190224851-e-221

Atintande, M. (2012). *Ghana Armed Forces -International Peacekeeping as a Tool of Diplomacy* (published master's dissertation, University of Ghana).

Aubyn, F., & Aning, K. (2015). Peacekeeping contributor profile: Ghana. https://www.providingforpeacekeeping.org/2014/04/03/contributor-profile-ghana/ (accessed on 15 April 2020).

Babbie, E. (2008). The *basics of social science research.* New York: Thomson Wadsworth.

Bakker, A. B. (2015). A job demands–resources approach to public service motivation. *Public Administration Review*, *75*(5), 723-732.

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, *22*(3), 309-328.

Bakker, A., Demerouti, E., & Schaufeli, W. (2003). Dual processes at work in a call centre: An application of the job demands–resources model. *European Journal of Work and Organizational Psychology*, *12*(4), 393-417.

Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, *43*(1), 83-104.

Bakker, A. B., Hetland, J., Olsen, O. K., Espevik, R., & De Vries, J. D. (2020). Job crafting and playful work design: Links with performance during busy and quiet days. *Journal of Vocational Behavior*, *122*, 103478.

Bakker, A. B., Van Veldhoven, M., & Xanthopoulou, D. (2010). Beyond the demand-control model. *Journal of Personnel Psychology*, *9*(1), 3-16.

Ballone, E. (2000). Factors Influencing Psychological Stress Levels of Italian Peacekeepers in Bosnia. *Military Medicine*, *65*, 911-915.

Ballone, E., Valentino, M., Occhiolini, L., Mascio, C. D., Cannone, D., & Schioppa, F. S. (2000). Factors influencing psychological stress levels of Italian peacekeepers in Bosnia. *Military Medicine, 165*(12), 911-915.

Banerjee, A., & Chaudhury, S. (2010). Statistics without tears: Populations and samples. *Industrial Psychiatry Journal*, *19*(1), 60.

Baraldi, A. N., & Enders, C. K. (2010). An introduction to modern missing data analyses. *Journal of school psychology*, *48*(1), 5-37.

Bartel-Radic, A., & Giannelloni, J. L. (2017). A renewed perspective on the measurement of cross-cultural competence: An approach through personality traits and cross-cultural knowledge. *European Management Journal*, *35*(5), 632-644.

Bartone, P. T., Hystad, S. W., Eid, J., & Brevik, J. I. (2012). Psychological hardiness and coping style as risk/resilience factors for alcohol abuse. *Military Medicine, 177*(5), 517-524.

Bartone, P. T., Roland, R. R., Picano, J. J., & Williams, T. J. (2008). Psychological hardiness predicts success in US Army Special Forces candidates. *International Journal of Selection and Assessment, 16(1)*, 78-81.

Beckham, G. T., Johnson, C. W., Karp, E. M., Salvachúa, D., & Vardon, D. R. (2016). Opportunities and challenges in biological lignin valorization. *Current opinion in biotechnology, 42*, 40-53.

Beckham, J. C., Moore, S. D., & Reynolds, V. (2000). Interpersonal hostility and violence in Vietnam combat veterans with chronic posttraumatic stress disorder: A review of theoretical models and empirical evidence. *Aggression and Violent Behavior*, *5*(5), 451-466.

Begiato, J. (2016). Between Poise and Power: Embodied Manliness in Eighteenth and Nineteenth Century British Empire. *Transactions of the Royal Historical Sciety, 26,* 125-147. doi:10.1017/S0080440226000086

Belik, S-L., Stein, M. B., Asmundson, J. G., Sareen, J. (2009). Relationship between traumatic events and suicide attempts in Canadian Military personnel, *Canadian Journal of Psychiatry, 54(2),* 93-104.

Bennett, D. A. (2001). How can I deal with missing data in my study? *Australian and New Zealand journal of public health, 25*(5), 464-469.

Bergelson, E. (2020). The comprehension boost in early word learning: Older infants are better learners. *Child development perspectives, 14*(3), 142-149.

Bernerth, J. B., Cole, M. S., Taylor, E. C., & Walker, H. J. (2018). Control variables in leadership research: A qualitative and quantitative review. *Journal of Management, 44*(1), 131-160.

Bernerth, J. B. & Aguinis, H. (2016). A critical review and best-practice recommendations for control variable usage. *Personnel Psychology, 69,* 229-283.

Betancourt, J. R., Green, A. R., Carrillo, J. E., & Park, E. R. (2005). Cultural competence and health care disparities: key perspectives and trends. *Health Affairs, 24*(2), 499-505.

Betancourt, J. R., Green A, Carrillo JE, Ananeh-Firempong O. (2003). Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Rep, 118,* 293-302.

Bhawuk, D. P. S., Sakuda, K. H., & Munusamy, V. P. (2008). Intercultural competence development and triple-loop cultural learning: Toward a theory of intercultural

sensitivity. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications* (pp. 342-355). Armonk, NY: M. E. Sharpe.

Bober, T. & Regehr, C. (2005). *Strategies for reducing secondary or vicarious trauma: Do They Work?* Oxford Universities Press.

Boddy, C. R. (2016). Sample size for qualitative research. *Qualitative Market Research: An International Journal, 19(*4), 426-432.

Boehm-Tabib, E. (2016) Acute stress disorder among civilians during a war and post-traumatic growth six years later: the impact of personal and social resources. *Anxiety, Stress, & Coping, 29*(3), 318-333.

Bolino, M. C. (2007). Expatriate assignments and intra-organizational career success: Implications for individuals and organizations. *Journal of International Business Studies*, *38*(5), 819-835.

Bolton, E., Litz, B., Glenn, D., Orsillo, S. & Roemer, L. (2002). The impact of the homecoming reception and the adaptation of peacekeepers following deployment. *Military Psychology, 14*, 241–251.

Bonanno, G. A., Westphal, M., & Mancini, A. D. (2011). Resilience to loss and potential trauma. *Annual review of clinical psychology*, *7*(1), 511-535.

Boutros, B-G. (1992). *An Agenda for Peace: Preventive Diplomacy, Peacemaking and Peacekeeping: Report of the Secretary-General pursuant to the statement adopted by the Summit Meeting of the Security Council* on 31 January 1992.

Bovin, M. J., Marx, B. P., Weathers, F. W., Gallagher, M. W., Rodriguez, P., Schnurr, P. P., & Keane, T. M. (2016). Psychometric properties of the PTSD Checklist for Diagnostic and Statistical Manual of Mental Disorders–Fifth Edition (PCL-5) in veterans. *Psychological Assessment, 28(11)*, 1379-1391. http://dx.doi.org/10.1037/pas0000254

Bowling, U. B., & Sherman, M. D. (2008). Welcoming them home: Supporting service members and their families in navigating the tasks of reintegration. *Professional Psychology: Research and Practice*, *39*(4), 451.

Bramsen, I., Dirkzwager, A. J., van der Ploeg, H. M. (2000). Pre-deployment personality traits and exposure to trauma as predictors of posttraumatic stress symptoms: A prospective study of former peacekeepers. *American Journal of Psychiatry, 157*, 1115–1119.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101.

Britt, T. W., Adler, A. B., & Bartone, P. T. (2001). Deriving benefits from stressful events: the role of engagement in meaningful work and hardiness. *Journal of Occupational Health Psychology*, *6*(1), 53.

Britt, T. W., Greene-Shortridge, T. M., & Castro, C.A. (2007). The stigma of mental health problems in the Military. *Military Medicine, 172*, 157–161.

Bryan, C., O'Shea, D., & MacIntyre, T. (2019). Stressing the relevance of resilience: a systematic review of Resilience across the domains of sport and work. *International Review of Sports and Exercise Psychology, 12(1)*, 70-111.

Bunniss, S., & Kelly, D. R. (2010). Research paradigms in medical education research. *Medical Education*, *44*(4), 358-366.

Bryne, M. B. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming.* New York: Routledge.

Calhoun, L. G., Cann, A., Tedeschi, R. G., & McMillan, J. (2000). A correlational test of the relationship between posttraumatic growth, religion, and cognitive processing. *Journal of Traumatic Stress: Official Publication of the International Society for Traumatic Stress Studies*, *13*(3), 521-527.

Campbell, D. J., & Nobel, O. B. Y. (2009). Occupational stressors in military service: A review and framework. *Military Psychology*, *21*(sup2), S47-S67.

Campinha-Bacote, J. (2009). A culturally competent model of care for African Americans. *Urologic Nursing*, *29*(1), 49-54.

Caplan, R. (2015). United Nations Interim Administration Mission in Kosovo (UNMIK). In *The Oxford handbook of United Nations peacekeeping operations*. Oxford University Press.

Carlson, K. D. & Wu, J. (2012). The Illusion of Statistical Control: Control Variable Practice in Management Research. *Organisational Research Methods, 15*, 413-435.

Carol, A. & Potter, J. (2015). Working in a world of hurt. Trauma and resilience in the narratives of medical personnel in warzones. Manchester: Manchester University Press.

Castillo, R. J., & Guo, K. L. (2011). A framework for cultural competence in health care organizations. *The Health Care Manager*, *30*(3), 205-214.

Cathomas, F., Murrough, J. W., Nestler, E. J., Ming-HuHan & Russo, S. J. (2019). Neurobiology of resilience: interface between mind and body. *Biological Psychiatry, 86*(6), 410-420.

Cawkill, P. (2002). *A Study into Commanders' Understanding of, and Attitudes to, Stress and Stress-Related Problems*. Report No. DSTL/CR02663. Farnborough, Hants, UK, DSTL.

Chamberlain, S. A., Hoben, M., Squires, J. E., & Estabrooks, C. A. (2016). Individual and organizational predictors of health care aide job satisfaction in long term care. *BMC Health Services Research*, *16*(1), 1-9.

Charuvastra, A., & Cloitre, M. (2008). Social bonds and posttraumatic stress disorder. *Annu. Rev. Psychol.*, *59*, 301-328.

Cherry, K. E., Sampson, L., Nezat, P. F., Cacamo, A., Marks, L. D., & Galea, S. (2015) Long-term psychological outcomes in older adults after disaster: relationships to religiosity and social support. *Aging & Mental Health*, *19*(5), 430-443.

Child, J., Karmowska, J. & Shenkar, O. (2022). The role of context in SME internationalization – A review. *Journal of World Business*, *57(1)*.

Cicchetti, D., & Lynch, M. (1993). Toward an ecological/transactional model of community violence and child maltreatment: Consequences for children's development. *Psychiatry*, *56*(1),96-118.

Clarke III, I., Flaherty, T. B., Wright, N. D., & McMillen, R. M. (2009). Student intercultural proficiency from study abroad programs. *Journal of Marketing Education*, *31*(2), 173-181.

Cohen, L., Manion, L. & Morison, K. (2000). *Research Methods in Education.* London: Routledge Falmer.

Collins, J. J. (1998). The complex context of American military culture: A practitioner's view. *Washington Quarterly*, *21*(4), 213-228.

Collins, C. L., Lee, K. H., & Wadsworth, S. M. M. (2017). Family stressors and resources: Relationships with depressive symptoms in military couples during pre-deployment. *Family Relations, 66*(2), 302-316.

Connell, M. A., Omole, O., Subramaney, U. & Olorunju, S. (2013). Posttraumatic stress disorder and resilience in veterans who served in the South African border war. *African Journal of Psychiatry*, 2 – 7.

Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depression and Anxiety, 18*(2), 76-82.

Constitution of the Republic of Ghana, (1992). p. 140.

Creswell, J. W. (2003). Research design: Qualitative, quantitative, and mixed methods approaches. Thousand Oaks, CA: Sage

Creswell, J. W. (2013). *Steps in conducting a scholarly mixed methods study*. DigitalCommons@University of Nebraska – Lincoln, University of Nebraska – Lincoln. https://digitalcommons.unl.edu/dberspeakers/48/

Creswell, J. W., & Tashakkori, A. (2007). Differing perspectives on mixed methods research. *Journal of Mixed Methods Research, 1*(4), 303-308.

Crouch, S., & Housden, M. (2003). *Marketing research for managers.* Oxford.

Crowley-Henry, M., Heaslip, G., & John, M. (2014). Short-term international assignments. Military perspectives and implications for international human resource management. *European Management Journal, 32*(5), 752–760

Csikszentmihalyi, M., & Seligman, M. (2000). Positive psychology. *American Psychologist, 55*(1), 5-14.

Curran, P. J., West, S. G., & Finch, J. F. (1996). The robustness of test statistics to nonnormality and specification error in confirmatory factor analysis. *Psychological Methods, 1*(1), 16.

Cutrona, C. E., & Russell, D. W. (1990). Type of social support and specific stress: Toward a theory of optimal matching. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 319–366), John Wiley & Sons.

D'Annunzio-Green, N. (2002). An examination of the organizational and cross-cultural challenges facing international hotel managers in Russia. *International Journal of Contemporary Hospitality Management*, 14(6), 266-273.

Dami, B. E., James, A., & Zubairu, D. (2018). Religious affiliation, combat exposure, and PTSD among military combatants in northeast Nigeria. *J Psychol Clin Psychiatry*, *9*(2), 172-178.

Davis, L., Hanson, S. K., Zamir, O., Gewirtz, A. H., & DeGarmo, D. S. (2015). Associations of contextual risk and protective factors with fathers' parenting practices in the post-deployment environment. *Psychological Services*, *12*(3), 250.

Davies, S. E., & Rushton, S. (2015). *Healing or Harming? United Nations Peacekeeping and Health*. New York: International Peace Institute.

Deahl, M., Srinivasan, M., Jones, N., Thomas, J., Neblett & Jolly, A. (2000). Preventing Psychological Trauma in Soldiers: The role of Operational Stress Training and Psychological Debriefing. *British Journal of Medical Psychology,73*, 77-85.

Deardorff, D. K., (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education, 10* (3), 241–266.

De Burgh, H. T., White, C. J., Fear, N. T., & Iversen, A. C. (2011). The impact of deployment to Iraq or Afghanistan on partners and wives of military personnel. *International Review of Psychiatry*, *23*(2), 192-200.

De Fazio, V. J. (1975). The Vietnam era veteran: psychological problems. *Journal of Contemporary Psychotherapy*, *7*, 9–15.

De Groot, M., Auslanden, W., Williams, J. H., Sherraden, M., & Haire-Joshu, D. (2003). Depression and poverty among African American women at risk for type 2 diabetes. *Annals of Behavioral Medicine*, *25*(3), 172-181.

Demers, A. (2011). When veterans return: The role of community in reintegration. *Journal of Loss and Trauma*, *16*(2), 160-179.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, *86*(3), 499.

Deng, M., Zheng, M., & Guinote, A. (2018). When does power trigger approach motivation? Threats and the role of perceived control in the power domain. *Social and Personality Psychology Compass*, *12*(5), e12390.

Denzin, N.K., & Lincoln, Y.S. (2005). Introduction: The discipline and practice of qualitative research. In N.K. Denzin and Y.S. Lincoln (Eds.) The Sage handbook of qualitative research (pp.1-32). Thousand Oaks, CA: Sage

Diehle, J., Brooks, S. K., & Greenberg, N. (2017). Veterans are not the only ones suffering from posttraumatic stress symptoms: what do we know about dependents' secondary traumatic stress? *Social Psychiatry and Psychiatric Epidemiology*, *52*(1), 35-44.

Dinges, N., & Baldwin, K. (1996). Intercultural competence. In D Landis. *Handbook of Intercultural Training London (*106-123), Sage.

Dirkzwager, J. E., Bramsen, I., & van der Ploeg, H. (2003). Predeployment personality traits and exposure to trauma as predictors of posttraumatic stress symptoms: a prospective study of former peacekeepers. *American Journal of Psychology, 157(7),* 1115-1119.

Dunn, T. W., Smith, T. B., & Montoya, J. A. (2006). Multicultural competency instrumentation: A review and analysis of reliability generalization. *Journal of Counseling & Development*, *84*(4), 471-482.

Dunt, D. R. (2009). *Review of mental health care in the ADF and transition through discharge*. Canberra: Department of Defence.

Earley, P. C. (2002). Redefining interactions across cultures and organizations: Moving forward with cultural intelligence. In B. M. Staw & R. M. Kramer (Eds.), *Research in organizational behavior: An annual series of analytical essays and critical reviews*. (pp. 271-299): Elsevier Science/JAI Press.

Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Stanford, CA: Stanford Business Books.

Edu-Afful, F., & Aning, K. (2015). Peacekeeping Economies in a Sub Regional Context: The Paradigmatic Cases of Liberia, Sierra Leone and Cote d'Ivoire. *Journal of Intervention and Statebuilding, 9(3),* 391-407.

Ehlich, P. J., Roemer, L., & Litz, B. T. (1997). PTSD after a peacekeeping mission. *American Journal of Psychiatry, 154*(9), 1319-1320.

Enomoto, R., Hanusz, Z., Hara, A., & Seo, T. (2020). Multivariate normality test using normalizing transformation for Mardia's multivariate kurtosis. *Communications in Statistics-Simulation and Computation*, *49*(3), 684-698.

Etezadi-Amoli, J., & Farhoomand, A. F. (1996). A structural model of end user computing satisfaction and user performance. *Information & Management, 30*(2), 65-73.

Etikan, I., & Bala, K. (2017). Sampling and sampling methods. Bio*metrics & Biostatistics International Journal, 5(*6), 215–217.

Favila, I. Z. (2009). Treatment of Post-Traumatic Stress Disorder in Post-Genocide Rwanda. *Global Grassroots* (http://www.globalgrassroots.org/pdf/PTSD-Rwanda.pdf)

Feder, A., Fred-Torres, S., Southwick, S. M. & Charney, D. S. (2019). The Biology of Human Resilience: Opportunities for Enhancing Resilience Across the Life Span. *Biological Psychiatry*, *86(6)*, 443-453

Feilzer, Y. M. (2010). Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research*, *4*(1), 6-16.

Ferrier-Auerbach, A. G., Erbes, C. R., Polusny, M. A., Rath, C. M., & Sponheim, S. R. (2010). Predictors of emotional distress reported by soldiers in the combat zone. *Journal of psychiatric research*, *44*(7), 470-476.

Fisher, K., Hutchings, K., & Pinto, L. H. (2015). Pioneers across war zones: The lived acculturation experiences of US female military expatriates. *International Journal of Intercultural Relations*, *49*, 265-277.

Flynn, R. J., Ghazal, H., Legault, L., Vandermeulen, G., & Petrick, S. (2004). Use of population measures and norms to identify resilient outcomes in young people in care: An exploratory study. *Child & Family Social Work*, *9*(1), 65-79.

Fokkema, M., & Greiff, S. (2017). How performing PCA and CFA on the same data equals trouble. *European Journal of Psychological Assessment, 33*(6), 399-402.

Fontana, A., Litz, B. & Rosenheck, R. (2000). Impact of combat and sexual harassment on the severity of posttraumatic stress disorder among men and women peacekeepers in Somalia. *Journal of Nervous Mental Disorder, 188(3)*, 163-169.

Forbes, D., O'Donnell, M., Brand, R. M., Korn, S., Creamer, M., McFarlane, A. C., Sim, M. R., Forbes, A. B. & Hawthorne, G. (2016). The long-term mental health impact of peacekeeping: prevalence and predictors of psychiatric disorder. *British Journal of Psychiatry, 2*, 32-37.

Fraenkel, J. R. & Wallen, N. E. (2003). *How to design and evaluate research in education.* Boston: McGraw-Hill Inc.

Garland, N., Harris, B., Moore, T., & Reynolds, A. (2021). Exploring linear earthworks across time and space–introducing the 'Monumentality and Landscape: Linear Earthworks in Britain'Project. *Offa's Dyke Journal*, *3*, 129-150.

Galatzer-Levy, I. R., Brown, A. D., Henn-Haase, C., Metzler, T. J., Neylan, T. C., & Marmar, C. R. (2013). Positive and negative emotion prospectively predict trajectories of resilience and distress among high-exposure police officers. *Emotion, 13*(3), 545.

Gallus, J. A., Gouge, M. C., Antolic, E., Fosher, K., Jasparro, V., Coleman, S., Selmeski, B., & Klafehn, J. L. (2014). *Cross-cultural competence in the department of defense: an annotated bibliography*. United States Army Research Institute for the Behavioral and Social Sciences, Arlington, VA.

Gao, S., Mokhtarian, P. L., & Johnston, R. A. (2008). Nonnormality of data in structural equation models. *Transportation Research Record*, *2082*(1), 116-124.

García Silgo, M. (2013). Review of evidence-based resilience programs in armies. *Military Health, 69* (3), 182-194

Garrett, P.M. (2016). Questioning tales of 'ordinary magic': 'resilience' and neoliberal reasoning. *British Journal of Social Work, 46*, 1909-1925. doi: 10.1093/bjsw/bcv017

Ghaffarzadegan, N., Ebrahimvandi, A. & Jalali, M. S. (2016). A Dynamic Model of Post-Traumatic Stress Disorder for Military Personnel and Veterans. PLoS ONE, 11(10), 1-17.

Gibbons, S. W., Hickling, E. J., & Watts, D. D. (2012). Combat stressors and post-traumatic stress in deployed military healthcare professionals: an integrative review. *Journal of Advanced Nursing*, *68*(1), 3-21.

Glad, B. (1990). *Psychological Dimensions of War*. London: Sage.

Godfrey, P. C., & Hill, C. W. (1995). The problem of unobservables in strategic management research. *Strategic Management Journal*, *16*(7), 519-533.

Gold, M. S., & Bentler, P. M. (2000). Treatments of missing data: A Monte Carlo comparison of RBHDI, iterative stochastic regression imputation, and expectation-maximization. *Structural Equation Modeling*, *7*(3), 319-355.

Gordon, J.R. (2002). *Organisational Behavior: A Diagnostic Approach*. New Jersey: Prentice Hall.

Gould, M. (2006). *Stigma and the Military: Evaluation of a PTSD Psychoeducational Program to Effect Cultural Change in the Naval Service*. Doctoral dissertation, London, UK, University of London.

Gras, M. E., Font-Mayolas, S., Baltasar, A., Patiño, J., Sullman, M. J., & Planes, M. (2019). The Connor-Davidson Resilience Scale (CD-RISC) amongst young Spanish adults. *Clínica y Salud*, *30*(2), 73-79.

Gray, M. J., Bolton, E. E. & Litz, B. T. (2004). A longitudinal analysis of PTSD symptom course: delayed-onset PTSD in Somalia peacekeepers. *Journal of Consult Clinical Psychology, 72*(5), 909–913.

Green, K. T., Beckham, J. C., Youssef, N., & Elbogen, E. B. (2014). Alcohol misuse and psychological resilience among US Iraq and Afghanistan era veterans. *Addictive Behaviors*, *39*(2), 406-413.

Greenberg, N., Iversen, A., Hull, L., Bland, D., & Wessely, S. (2008). Getting a piece of the action: measures of post-traumatic stress in UK military peacekeepers. *Journal of the Royal Society of Medicine*, *101*(2), 78-84.

Greenberg, N., Thomas, S. L., Iversen, A., Unwin, C., Hull, I. & Wessely, S. (2003). Do military peacekeepers want to talk about their experiences: perceived psychological support of UK military peacekeepers on return from deployment, *Journal of Mental Health*, *12*, 565–573.

Greenberg, N., Langston, V., Gould, M. & Psych, D. (2007). Culture: What Is Its Effect on Stress in the Military? *Military Medicine, 172(9)*, 931.

Greenberg, N., Thomas, S. L., Iversen, A., Unwin, C., Hull, I. & Wessely, S. (2003). Do military peacekeepers want to talk about their experiences: perceived psychological support of UK military peacekeepers on return from deployment, *Journal of Mental Health*, *12*, 565–573.

Groves, C. (2015). Exploring Issues Related to PTSD Versus Personality Disorder Diagnoses With Military Personnel. *Journal of Human Behavior in the Social Environment, 25(7),* 731-745, DOI: 10.1080/10911359.2015.1032645

Grover, S. L., Teo, S. T., Pick, D., Roche, M., & Newton, C. J. (2018). Psychological capital as a personal resource in the JD-R model. *Personnel Review*, *47*(4), 968-984.

Guba, E., & Lincoln, Y. (1994). Competing paradigms in qualitative research. In Denzin, N.K. and Y. Lincoln (ed), *Handbook of Qualitative Research*. Sage, Newbury Park.

Guthrie, G. (2010). *Basic research methods: An entry to social science research*. SAGE Publications India.

Hair, J. F., Black, W. C., Balin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis*. New York, NY: Maxwell Macmillan International Editions.

Hair Jr, J. F., & Sarstedt, M. (2021). Data, measurement, and causal inferences in machine learning: opportunities and challenges for marketing. *Journal of Marketing Theory and Practice*, *29*(1), 65-77.

Hajjar, R. M. (2010). A new angle on the US military's emphasis on developing cross-cultural competence: Connecting in-ranks' cultural diversity to cross-cultural competence. *Armed Forces & Society*, *36*(2), 247-263.

Harvey, A. G., Murray, G., Chandler, R. A., & Soehner, A. (2011). Sleep disturbance as transdiagnostic: consideration of neurobiological mechanisms. *Clinical psychology review*, *31*(2), 225-235.

Halbesleben, J. R., Neveu, J. P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the "COR" understanding the role of resources in conservation of resources theory. *Journal of Management*, *40*(5), 1334-1364.

Hall, D. P. (2004). Stress, suicide, and military service during Operation Uphold Democracy. *Military Medicine, 161*, 159–162.

Hall, B. J., Tol, W. A., Jordans, M. J., Bass, J., & de Jong, J. T. (2014). Understanding resilience in armed conflict: Social resources and mental health of children in Burundi. *Social Science & Medicine*, *114*, 121-128.

Hammer, M. R., Bennett, M., J., & Wiseman, R. (2003). Measuring intercultural sensitivity: The Intercultural Development Inventory. *International Journal of Intercultural Relations, 27*, 421- 443.

Han, S.C., Castro, F., Lee, L.O., Charney, M.E., Marx, B.P., Brailey, K., Proctor, S.P. and Vasterling, J.J. (2014). Military unit support, post deployment social support, and PTSD symptoms among active duty and National Guard soldiers deployed to Iraq. *Journal of Anxiety Disorders*, *28*(5), pp.446-453.

Hansen-Schwartz, J., Jessen, G., Andersen, K. & Jørgensen, H. O. (2002). Suicide after deployment in UN peacekeeping missions—a Danish pilot study. *Crisis, 23*, 55–58.

Harvey, A. G., Murray, G., Chandler, R. A., & Soehner, A. (2011). Sleep disturbance as transdiagnostic: consideration of neurobiological mechanisms. *Clinical psychology review*, *31*(2), 225-235.

Harbertson, J., Grillo, M., Zimulinda, E., Murego, C., Cronan, T., May, S., Brodine, S., Sebagado, M., Araneta, M. R. G. & Shaffer, R. (2013). Prevalence of PTSD and depression, and associated sexual risk factors, among male Rwanda Defense Forces military personnel, *European Journal of Tropical Medicine and International Health, 18(8)*, 925–933.

Harms, P. D., Krasikova, D. V., Vanhove, A. J., Herian, M. N. & Lester, P. B. (2013). Stress and Emotional Well-Being in Military Organizations. *Publications of Affiliated Faculty: Nebraska Public Policy Center*. Paper 31. http://digitalcommons.unl.Edu/publicpolicyfacpub/31

Harvey, J.S. (1996). Stress: Attitudes and Experiences of British Army Personnel. Report No. DRA/LS3/CR96103/1.0, October. Farnborough, UK, DRA.

Harvey, S. B., Modini, M., Joyce, S., Milligan-Saville, J. S., Tan, L., Mykletun, A., Bryant, R. A., Christensen, H., Mitchell, P. B. (2017). Can work make you mentally ill? A systematic meta-review of work-related risk factors for common mental health problems. *Occupational Environment Medicine, 74*, 301–310.

Headley, M. G., & Plano Clark, V. L. (2020). Multilevel mixed methods research designs: Advancing a refined definition. *Journal of Mixed Methods Research*, *14*(2), 145-163.

Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-based Nursing*, *18*(3), 66-67.

Healy, M., & Perry, C. (2000). Comprehensive criteria to judge the validity and reliability of qualitative research within the realism paradigm. *Qualitative Market Research – an International Journal, 3*(3), 118-126.

Hennink, M., Hutter, I., & Bailey, A. (2020). *Qualitative research methods*. Sage.

Heppner, P. P., Wang, K. T., Heppner, M. J., & Wang, L.-F. (2012). From cultural encapsulation to cultural competence: The cross-national cultural competence model. In N. A. Fouad, J. A. Carter, & L. M. Subich (Eds.), *APA handbook of counseling psychology (Vol. 2). Practice, interventions, and applications* (pp. 433–471). American Psychological Association.

Hernández Varas, E., Labrador Encinas, F. J., & Méndez Suárez, M. (2019). Psychological capital, work satisfaction and health self-perception as predictors of psychological wellbeing in military personnel. *Psicothema*, *31*(3) 277-283.

Hoelzle, J. B., & Meyer, G. J. (2013). Exploratory factor analysis: Basics and beyond. In J. A. Schinka, W. F. Velicer, & I. B. Weiner (Eds.), *Handbook of psychology: Research methods in psychology* (pp. 164–188). John Wiley & Sons, Inc.

Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I. & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine 351*, 13–22.

Hoge, C.W., Lesikar, S. E., Guevara, R., et al. (2002). Mental disorders among U.S. military personnel in the 1990s: association with high levels of health care utilization and early military attrition. *American Journal of Psychiatry, 159*, 1576–1583.

Hobfoll, S. E. (1989). Conservation of resources: a new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513-524.

Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, *6*(4), 307-324.

Hobfoll, S. E., Canetti-Nisim, D., & Johnson, R. J. (2006). Exposure to terrorism, stress- related mental health symptoms, and defensive coping among Jews and Arabs in Israel. *Journal of Consulting and Clinical Psychology*, *74*(2), 207.

Hobfoll, S. E., Freedy, J., Lane, C., & Geller, P. (1990). Conservation of social resources: Social support resource theory. *Journal of Social and Personal Relationships*, *7*(4), 465-478.

Hobfoll, S. E., & Ford, J. S. (2010). Conservation of resources theory. *Encyclopedia of Stress (*pp. 562-567), Academic Press.

Hoge, E. A., Austin, E. D., & Pollack, M. H. (2007). Resilience: Research evidence and conceptual considerations for posttraumatic stress disorder. *Depression and Anxiety*, *24*(2), 139-152.

Holger, A. (ed). (2015). The purpose of the First World War. War aims ad military strategies. Berlin: De Gruyter.

Hong, C. & Efferth, T. (2016). Systematic Review on Post-Traumatic Stress Disorder Among Survivors of the Wenchuan Earthquake. *Trauma, Violence & Abuse, 17(5)*, 542-561.

Hotopf, M., Hull, L., Fear, N.T., Browne, T., Horn, O., Iversen, A., Jones, M., Murphy, D., Bland, D., Earnshaw, M., & Greenberg, N. (2006). The health of UK military personnel who deployed to the 2003 Iraq war: a cohort study. *The Lancet*, *367*(9524), 1731-1741.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55.

Hu, T., Zhang, D., & Wang, J. (2015). A meta-analysis of the trait resilience and mental health. *Personality and Individual Dfferences*, *76*, 18-27.

Hughes, J. M., Ulmer, C. S., Hastings, N., Gierisch, J. M., The VA Mid-Atlantic Mental Illness Research, Education, Clinical Center (MIRECC) Workgroup, Howard, M. O. (2018). Sleep and Resilience and psychological distress in United States military veterans. *Military Psychology, 30(5)*, 404-414.

Ikin, J. F., Sim, M. R., Creamer, M. C., Forbes, A. B., McKenzie, D. P., Kelsall, H. L., Glass, D. C., McFarlane, A.C., Abramson, M. J., Ittak, P., Dwyer, T., Blizzard, L., Delaney, K. R., Horsley, K. W. A., Harrex, W. K., Schwarz, H. (2004). War-related psychological stressors and risk of psychological disorders in Australian veterans of the 1991 Gulf War. *British Journal of Psychiatry, 185*, 116–126.

Ilies, R., Johnson, M. D., Judge, T. A., & Keeney, J. (2011). A within-individual study of interpersonal conflict as a work stressor: Dispositional and situational moderators. *Journal of Organizational Behavior*, *32*(1), 44-64.

Inbar, D., Solomon, Z., Aviram, U., Spiro, S. & Kotler, M. (1989). Officers' attitudes toward combat stress reaction: responsibility, treatment, return to unit and personal distance. *Military Medicine, 154*, 480–486.

Infurna, F. J., & Luthar, S. S. (2017). The multidimensional nature of resilience to spousal loss. *Journal of Personality and Social Psychology, 112*(6), 926.

Infurna, F. J., & Luthar, S. S. (2018). Re-evaluating the notion that resilience is commonplace: A review and distillation of directions for future research, practice, and policy. *Clinical psychology review*, *65*, 43-56.

Ippolito, J., Adler, A. B., Thomas, J. L., Litz, B. T. & Holzl, R. (2005). Extending the Demand-Control Model: The Role of Soldiers' Coping on a Peacekeeping Deployment. *Journal of Occupational Psychology, 10(4)*, 452-464.

Ippoliti, F., Corbosiero, P., Canitano, N., Massoni, F., Ricciardi, M. R., Ricci, L., Archer, T., Ricci, S. (2017). Work-related stress, over-nutrition and cognitive disability. *Clinical Therapeutics, 168(1)*, 177-163.

Ivankova, N., & Wingo, N. (2018). Applying mixed methods in action research: Methodological potentials and advantages. *American Behavioral Scientist, 62*(7), 978-997.

Iversen, A.C., Fear, N.T., Ehlers, A., Hughes, J.H., Hull, L., Earnshaw, M., Greenberg, N., Rona, R., Wessely, S. and Hotopf, M. (2008). Risk factors for post-traumatic stress disorder among UK Armed Forces personnel. *Psychological Medicine, 38*(4), 511-522.

Jakobsen, M. & Jensen, R. (2015). Common method bias in public management studies. *International Public Management Journal, 18.* 3–30.

Johnson, J. P., Lenartowicz, T., & Apud, S. (2006). Cross-cultural competence in international business: Toward a definition and a model. *Journal of International Business Studies*, *37*(4), 525-543.

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher, 33*(7), 14-26.

Jones, N., Roberts, P. & Greenberg, N. (2003). Peer-group risk assessment: a post-traumatic management strategy for hierarchical organizations. *Occupational Medicine, 53,* 469–475.

Jonker, J., & Pennink, B. (2010). *The essence of research methodology: A concise guide for master and PhD students in management science*. Springer Science & Business Media.

Jutras, M. (2017). Historical perspectives on the theories, diagnosis, and treatment of mental Illness. *British Columbia Medical Journal, 59(2),* 86-88.

Kaihlanen, A. M., Hietapakka, L., & Heponiemi, T. (2019). Increasing cultural awareness: qualitative study of nurses' perceptions about cultural competence training. *BMC Nursing*, *18*(1), 1-9.

Kaiser, H. F. (1958). The varimax criterion for analytic rotation in factor analysis. *Psychometrika*, *23*(3), 187-200.

Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement*, *20*(1), 141-151.

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, *39*(1), 31-36.

Karakurt, G., Christiansen, A. T., Wadsworth, S. M. M., & Weiss, H. M. (2013). Romantic relationships following wartime deployment. *Journal of Family Issues*, *34*(11), 1427-1451.

Keane, T. M., Marshall, A. D., & Taft, C. T. (2006). Posttraumatic stress disorder: etiology, epidemiology, and treatment outcome. *Annu Rev Clin Psychol.*, *2*, 161–97.

Kelle, U. (2006). Combining qualitative and quantitative methods in research practice: purposes and advantages. *Qualitative Research in Psychology*, *3*(4), 293-311.

Keller, T. (2005). Soldier Peer Mentoring Care and Support: Bringing Psychological Awareness for the Front. *Military Medicine, 1(7),* 355-363.

Keller, R.T., Greenberg, N., Bobo, W.V., Roberts, P., Jones, N. & Orman, D.T. (2005). Soldier peer mentoring care and support: bringing psychological awareness to the front. *Military Medicine, 170*, 355–361.

Keskinen, J. & Simola, P. (2016). The effect of job demands and social support on peacekeepers' stress and sense of coherence after deployment. *Journal of Military Studies*, *6*(2), 59-81.

Kessler, R. C., Sonnega, A., Bromet, E., & Nelson, C. B. (1995). Posttraumatic stress disorder in the National Comorbidity Study. *Archives in General Psychiatry,* 52, 1048-1060.

Kettner, B. (1972). Introduction. Combat strain and subsequent mental health. A follow-up study of Swedish soldiers serving in the United Nations forces 1961–62. *Acta Psychiatrica Scandinavica Supplementary Journal, 230,* 1–112.

Kilgore, W. D., Cotting, D. I., Thomas, J. L., Cox, A. L., McGurk, D., Vo, A. H., … Hoge, C. W. (2008). Post-combat invincibility: Violent combat experiences are associated with increased risk-taking propensity following deployment. *Journal of Psychiatric Research, 42(13),* 1112–1121.

Kim, Y. K., & Cranley, C. (2020). Acculturative stress and binge drinking among international students in the United States: Resilience and vulnerability approaches. *Journal of American College Health, 68(2),* 207-218.

Kitchenham, B., & Brereton, P. (2013). A systematic review of systematic review process research in software engineering. *Journal of Information and Software Technology, 55(12),* 2049-2075.

Kline, R. B. (2005). *Principles and practice of structural equation modeling.* New York, NY: Guilford Press.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3), 607-610.

Kroenke, K., & Spitzer, R. L. (2002). The PHQ-9: A new depression diagnostic and severity measure. *Psychiatric Annals, 32*(9), 509–515.

Kulka, R. A., Schlenger, W. E., Fairbank, J. A., Hough, R. L., Jordan, B. K. & Marmar, C. R. (1988). National Vietnam Veterans Readjustment Study (NVVRS): description, current status, and initial PTSD prevalence estimates. Research Triangle Park, NC, Research Triangle Park Institute.

Kwon, K., & Kim, T. (2020). An integrative literature review of employee engagement and innovative behavior: Revisiting the JD-R model. *Human Resource Management Review*, *30*(2), 100704.

Labuc, S. (1991). *Cultural and societal factors in military organizations. In: The Handbook of Military Psychology*, pp 471–89. (ed.). Gal, R. & Mangelsdorff, D. New York, Wiley.

Lamerson, C. D. & Kelloway, E. K. (1996). Towards a Model of Peacekeeping Stress: Traumatic and Contextual Influences. *Canadian Psychology, 37(4)*, 195-204.

Lamond, A. J., Depp, C. A., Allison, M., Langer, R., Reichstadt, J., Moore, D.J., Golshan, S., Ganiats, T. G., & Jeste, D. V. (2008). Measurement and predictors of resilience among community-dwelling older women. *Journal of Psychiatric research*, *43*(2), 148-154.

Laser, J. A., & Stephens, P. M. (2011). Working with military families through deployment and beyond. *Clinical Social Work Journal*, *39*(1), 28-38.

La Torre, G., Sestili, C., Mannocci, A., Sinopoli, A., De Paolis, M., De Francesco, S., Rapaccini, L., Barone, M., Iodice, V., Lojodice, B., Sernia, S., De Sio, S., Del Cimmuto, A. & De Giusti, M. (2018). Association between work related stress and health related quality of life: the impact of socio-demographic variables. a cross sectional study in a region of central Italy. *International Journal of Environmental Research and Public Health, 15*, 159-168.

Lee, D., Yu, E-S., & Kim, N. H. (2020). Resilience as a mediator in the relationship between post-traumatic stress and posttraumatic growth among adult accident or crime victims: the moderated mediating effect of childhood trauma. *European Journal of Psychotraumatology, 11(1)*.

Lee, J-S. (2019). Perceived social support functions as a resilience in buffering the impact of trauma exposure on PTSD symptoms via intrusive rumination and entrapment in firefighters. *PLoS ONE 14*(8): e0220454.

Lee, J. S., Ahn, Y. S., Jeong, K. S., Chae, J. H., & Choi, K. S. (2014). Resilience buffers the impact of traumatic events on the development of PTSD symptoms in firefighters. *Journal of Affective Disorders, 162*, 128-133.

Lee, J. E., Sudom, K. A., & Zamorski, M. A. (2013). Longitudinal analysis of psychological resilience and mental health in Canadian military personnel returning from overseas deployment. *Journal of Occupational Health Psychology*, *18*(3), 327.

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

Leung, K., Ang, S., & Tan, M. L. (2014). Intercultural competence. *Annual Review of Organizational Psychology and Organizational Behavior*, *1*(1), 489-519.

Little, T. D. (2013). *Longitudinal structural equation modeling*. Guilford press.

Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling*, *9*(2), 151-173.

Litz, B. T., King, L. A., King, D. W., Orsillo, S. M. & Friedman, M. J. (1997). Warriors as Peacekeepers: Features of the Somalia Experience and PTSD. *Journal of Consulting*

and Clinical Psychology, 65, 1001-1010.

Livian, Y. F. (2012). Is the concept of intercultural competence a useful concept? In *Annales des Mines-Gerer et understand* (No. 1, pp. 87-94). ESKA.

Lloret, S., Ferreres, A., Hernández, A., & Tomás, I. (2017). The exploratory factor analysis of items: guided analysis based on empirical data and software. *Anales de Psicología, 33*(2), 417-432.

Long, T., & Johnson, M. (2000). Rigour, reliability and validity in qualitative research. *Clinical Effectiveness in Nursing, 4*(1), 30-37.

Lonner, W. J., & Hayes, S. A. (2004). Understanding the cognitive and social aspects of intercultural competence. In R. J. Sternberg & E. L. Grigorenko (Eds.), *Culture and competence: Contexts of life success* (pp. 89–110), American Psychological Association.

Loscalzo, Y., Giannini, M., Gori, A., & Fabio, A. D. (2018). The wellbeing of Italian peacekeeper military: Psychological resources, quality of life and internalizing symptoms. *Frontiers in Psychology, 9*, 103, 1 – 8.

Lukey, B. J. & Tepe, V. (2008). (eds.). *Biobehavioral Resilience to Stress*. Victoria Press.

Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development, 71*(3), 543-562.

MacGregor, A. J., Han, P. P., Dougherty, A. L., & Galarneau, M. R. (2012). Effect of dwell time on the mental health of US military personnel with multiple combat tours. *American Journal of Public Health, 102*(S1), S55-S59.

Mackenzie, L., & Miller, J. W. (2017). Intercultural training in the United States military. *The International Encyclopedia of Intercultural Communication* (1-10), Wiley Online Library.

Maguen, S., Litz, B. T., Wang, J. L., & Cook, M. (2004). The stressors and demands of peacekeeping in Kosovo: Predictors of mental health response. *Military Medicine, 169*(3), 198-206.

Maleku, A., Kim, Y. K., Kagotho, N., & Lim, Y. (2021). Expanding the transformative explanatory sequential mixed methods design archetype in a cross-cultural context: The polemics of African refugee livelihoods in places of resettlement. *Journal of Mixed Methods Research, 15*(2), 212-239.

Malhotra, N. K., & Birks, D. (2007). *Marketing research, an applied approach.* Essex: Pearson.

Mark, G. M. & Smith, A. P. (2008). Stress models: A review and suggested new direction. *Journal of Occupational Health Psychology, 3,* 111-144.

Marshall, V. W. (2005). *Economic Effects of PTSD: A Review*. (Review Prepared for the Research Directorate of Veterans Affairs, Canada 11 January 2005); (accessed 9 January 2018).

Masten, A. S. (2007). Resilience in developing systems: Progress and promise as the fourth wave rises. *Development and Psychopathology, 19*(3), 921-930.

Mazzeo, S. E., Beckham, J. C., Witvliet, C. V., Feldman, M. E., & Shivy, V. A. (2002). A cluster analysis of symptom patterns and adjustment in Vietnam combat veterans with chronic posttraumatic stress disorder. *Journal of Clinical Psychology, 58*(12), 1555-1571.

McMillan, J. H., & Schumacher, S. (2006). *Research in education: evidence-based inquiry.* Cape Town: Pearson.

McPhail, R., Fisher, R., Harvey, M., & Moeller, M. (2012). Staffing the global organization: Cultural nomads". *Human Resource Development Quarterly*, *23*(2), 259-276.

Mehlum, L., Koldsland, B. O. & Loeb, M. E. (2006). Risk factors for long-term posttraumatic stress reactions in unarmed UN military observers: a four-year follow-up study. *Journal of Nervous Mental Disorder, 194*, 800–804.

Mehlum, L. & Weisæth, L. (2002). Predictors of Posttraumatic Stress Reactions in Norwegian U.N. Peacekeepers 7 Years after Service. *Journal of Traumatic Stress,* 15(1), 17–26.

Meredith, L. S., Sherbourne, C. B., Gaillet, S. J., Parker, A. M., Wrenn, G. & Ritschard, H. V. (2011). Promoting Psychological Resilience in the US Military. Rand Corporation.

Messick, S. (1989). Validity. In R.L. Linn (Ed.), Educational measurement (3rd ed.), pp. 13-103. New York: Macmillan

Mitchell, M. M., Gallaway, M. S., Millikan, A. & Bell, M. R. (2011). Combat stressors predicting perceived stress among previously deployed soldiers. *Military Psychology, 23(6),* 573–586.

Mikhaylov, N. S. (2014). International business students' cross-cultural competence development: The influence of the educational environment. *Sage Open, 4*(4), 2158244014564352.

Moldjord, C., Laberg, J. C. & Rundmo, T. (2016). Stressors, social support and military performance in a modern war scenario. *Journal of Military Studies, 6(1),* 1-18.

Molendijk, T., Kramer, E. H., & Verweij, D. (2016). Conflicting notions on violence and PTSD in the military: institutional and personal narratives of combat-related illness. *Culture, Medicine, and Psychiatry*, *40*(3), 338-360.

Morgan, D. L. (2014). Pragmatism as a paradigm for social research. *Qualitative Inquiry*, *20*(8), 1045-1053.

Morse, J. M. (2015). Data were saturated... *Qualitative Health Research*, *25*(5), 587-588.

Munce, S. E., Guetterman, T. C., & Jaglal, S. B. (2021). Using the exploratory sequential design for complex intervention development: Example of the development of a self-management program for spinal cord injury. *Journal of Mixed Methods Research*, *15*(1), 37-60.

Mustapha, A. (2014). Introduction. *International Journal of Middle East Studies*, *46(4)*, 653-656.

Nadinloyi, K. B., Sadeghi, H., & Hajloo, N. (2013). Relationship between job satisfaction and employee's mental health. *Procedia - Social and Behaviour Sciences*, *84*, 293–297.

Navinés, R., Martín-Santos, R., Olivé, V., Valdés, M. (2016). Work-related stress: Implications for physical and mental health. *Clinical Medicine*, *146*, 359–366.

Necku, C. S. (2015). *The relationship between military-civilian transition, psychological well-being and social adjustment among retired military personnel in Ghana* (published master's thesis), University of Ghana, Legon.

Nkolimwa, D., Jani, D., & Dominic, T. (2019). The Influence of Safety Training on Practices of Occupational Health and Safety in Small Scale Mining Firms. *The International Journal of Business & Management, 7(7)*, 181- 188.

Noble, H., & Smith, J. (2015). Issues of validity and reliability in qualitative research. *Evidence-based Nursing*, *18*(2), 34-35.

Nsereko, N. (2020). Conditional resource and social entrepreneurial action: the mediating role of social entrepreneurial intent. *Journal of Entrepreneurship in Emerging Economies*, DOI 10.1108/JEEE-05-2020-0106.

Ojedokun, O., & Balogun, S. K. (2015). The costs of policing: psychosocial capital and mental health outcomes in a Nigeria police sample. *The Spanish Journal of Psychology, 18.*

Okraku, O. O. (2017). *Resilience and coping strategies of liberian former girl child soldiers living in Ghana* (published doctoral thesis), University of Alberta.

Olga, A. (2018). Experiencing war. Chinese workers in Russia during the First World War. *The Chinse Historical Review, 25(1),* 46-66.

Onwuegbuzie, A. J., & Corrigan, J. A. (2014). Improving the quality of mixed research reports in the field of human resource development and beyond: A call for rigor as an ethical practice, *Human Resource Development Quarterly*, *25*(3), 273-299.

Osório, C., Jones, N. O., Jones, E., Robbins, I., Wessely, S., & Greenberg, N. (2017). Combat experiences and their relationship to post-traumatic stress symptom clusters in UK military personnel deployed to Afghanistan. *Behavioral Medicine*, *44*(2), 131-140.

Patton, M. Q. (2002). Two decades of developments in qualitative inquiry: A personal, experiential perspective. *Qualitative Social Work*, *1*(3), 261-283.

Patton, M. Q. (2002). Qualitative research and evaluation methods (3rd ed.). Thousand Oaks, CA: Sage. Pawson, R.

Pearn, J. (2000). Traumatic stress disorders: A classification with implications for prevention and management. *Military Medicine, 165*, 434–440.

Perry, C. & Smith, A. C. (2013). *Trends in Uniformed Contributions to UN Peacekeeping: A New Dataset, 1991-2012. Providing for Peacekeeping, 3*, New York: International Peace Institute.

Petty, N. J., Thomson, O. P., & Stew, G. (2012). Ready for a paradigm shift? Part 2: Introducing qualitative research methodologies and methods. *Manual therapy*, *17*(5), 378-384.

Pflanz, S. & Sonnek, S. (2002). Work stress in the military: prevalence, causes, and relationship to emotional health. *Military Medicine, 167*, 877–882.

Pietrzak, R. H., Russo, A. R., Ling, Q., & Southwick, S. M. (2011). Suicidal ideation in treatment-seeking veterans of operations enduring freedom and Iraqi freedom: The role of coping strategies, resilience, and social support. *Journal of Psychiatric Research*, *45*(6), 720-726.

Pietrzak, B., Dunaj, A., & Piątkowska, K. (2011). The role of the cannabinoid system in the pathogenesis and treatment of alcohol dependence. *Postepy Higieny i Medycyny Doswiadczalnej (Online)*, *65*, 606-615.

Pincus, S. H., House, R., Christenson, J., & Adler, L. E. (2001). The emotional cycle of deployment: A military family perspective. *US Army Medical Department Journal*, *4*(5), 6.

Pino, A & Giorgio, C. (eds). (2018). Nationalism and terror. Ante Pavelic and Ustashe terrorism from facism to the Cold War. Budapest: Central European University Press.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879.

Pollock, A., Campbell, P., Cheyne, J., Cowie, J., Davis, B., McCallum, J., ... & Maxwell, M. (2020). Interventions to support the resilience and mental health of frontline health and social care professionals during and after a disease outbreak, epidemic or pandemic: a mixed methods systematic review. *Cochrane Database of Systematic Reviews*, (11).

Pols, H., & Oak, S. (2007). War & military mental health: The US psychiatric response in the 20th century. *American Journal of Public Health*, *97*(12), 2132-2142.

Prince-Embury, S. (2013). Resiliency scales for children and adolescents: theory, research, and clinical application. In *Resilience in children, adolescents, and adults* (pp. 19-44). Springer, New York, NY.

Prince-Embury, S. (2013). Translating resilience theory for assessment and application with children, adolescents, and adults: Conceptual issues. *Resilience in children, adolescents, and adults*, 9-16.

Raju, M. S. V. K. (2014). Psychological aspects of peacekeeping operations. *Industrial Psychiatry Journal, 23(2)*, 149-156.

Rasmussen, L. J., & Sieck, W. R. (2015). Culture-general competence: Evidence from a cognitive field study of professionals who work in many cultures. *International Journal of Intercultural Relations*, *48*, 75-90.

Richardson, J. D., Naifeh, J. A., & Elhai, J. D. (2007). Posttraumatic stress disorder and associated risk factors in Canadian peacekeeping veterans with health-related disabilities. *The Canadian Journal of Psychiatry*, *52*(8), 510-518.

Roberts, N. P., Kitchiner, N. J., Kenardy, J., Robertson, L., Lewis, C., & Bisson, J. I. (2019). Multiple session early psychological interventions for the prevention of post-traumatic stress disorder. *Cochrane Database of Systematic Reviews*, (8).

Robinson, S. L. (2004). *Hidden Toll of the War in Iraq: Mental Health and the Military.* Washington, DC, Centre for American Progress.

Rogers, J. I. & Kennedy, C. (2014). Dying for peace? Fatality trends for United Nations peacekeeping personnel. *International Peacekeeping, 21(5)*, 658–672.

Rolf, J. E., & Glantz, M. D. (2002). Resilience. In *Resilience and Development* (pp. 5-14). Springer, Boston, MA.

Rose, S., Bisson, J. & Wessley, S. (2001). *Psychological Debriefing for Preventing Posttraumatic Stress Disorder (PTSD).* Cochrane Review in the Cochrane Library 2003(1). Oxford, UK, Update Software.

Rossetto, K. R. (2015). Evaluations of supportive and unsupportive responses during spousal deployment. *Communication Monographs*, *82*(3), 291-314.

Rutter, M. (2006). Implications of resilience concepts for scientific understanding. *Annals of the New York Academy of Sciences*, *1094*(1), 1-12.

Ryngaert, C., & Schriver, N. (2015). Lessons Learned from the Srebrenica Massacre: From UN Peacekeeping Reform to Legal Responsibility. Netherlands International Law Review, 62, 219-227.

Sackett, D. L., Strauss, S. E. & Richardson, W. (2000). Evidence-Based Medicine: How to practice and teach evidence-based medicine. (2nd ed.). Churchill Livingstone: Edinburgh

Salmela-Aro, K., & Upadyaya, K. (2018). Role of demands-resources in work engagement and burnout in different career stages. *Journal of Vocational Behavior*, *108*, 190-200.

Sampasa-Kanyinga, H., Zamorski, M. A. & Colman, I. (2018). Mental Disorder, Psychological Distress, and Functional Status in Canadian Military Personnel. *The Canadian Journal of Psychiatry/La Revue Canadienne de Psychiatrie*, 1-9.

Sandweiss, D. A., Slymen, D. J., Leardmann, C.A., Smith, B., White, M. R., Boyko, E. J., Hooper, T. I., Gackstetter, G. D., Amoroso, P. J., Smith, T. C., & Millennium Cohort Study Tea. (2011). Preinjury psychiatric status, injury severity, and postdeployment posttraumatic stress disorder. *Archives of General Psychiatry*, *68*(5), 496-504.

Sareen, J., Cox, B. J., Afifi, T. O., et al. (2007). Combat and peacekeeping operations in relation to prevalence of mental disorders and perceived need for mental health care: findings from a large representative sample of military personnel. *Archives of General Psychiatry, 64*, 843–852.

Sareen, J., Stein, M. B., Thoresen, S., Belik, S-L., Zamorski, M., Asmundson, G. J. G. (2010). Is Peacekeeping Peaceful? A Systematic Review. *The Canadian Journal of Psychiatry, 55(7)*, 464–472.

Sarris, J., & Byrne, G. J. (2011). A systematic review of insomnia and complementary medicine. *Sleep medicine reviews*, *15*(2), 99-106.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Pearson education.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: exploring its conceptualization and operationalization. *Quality & Quantity*, *52*(4), 1893-1907.

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational*

Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, *25*(3), 293-315.

Schneider, K. G. (2016). The impact of Deployment Transition Centre on Post-deployment Mental Health Outcomes. *Military Psychology, 28(2)*, 89-103.

Schrauf, R. W. (2018). Mixed methods design for making cross-cultural comparisons. *Journal of Mixed Methods Research*, *12*(4), 477-494.

Schreinemacher, L. (2016). Manliness in Late Victorian Novels. "The Picture of Dorian Gray" by Oscar Wilde and Bram Stoker's "Dracula", Munich, GRIN Verlag. https://www.grin.com/document/496134

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology—An introduction. American Psychologist, 55(1), 5–14. doi:10. 1037//0003-066x.55.1.5.

Selmer, J., & Fenner, C.R. (2009). Spillover effects between work and non-work adjustment among public sector expatriates. *Personnel Review*, 38(4), 366-379.

Selmeski, B. R. (2007). *Military cross-cultural competence: Core concepts and individual development*. Centre for Security, Armed Forces & Society, Royal Military College of Canada.

Senyshyn, R. M. (2002). *Cross-cultural competencies in international management curricula: A Delphi study of faculty perspectives*. The University of Tennessee.

Sheerin, C. M., Amstadter, A. B., Kurtz, E. D., Bountress, K. E., Stratton, K. J., McDonald, S. D., & The VA Mid-Atlantic Mental Illness Research, Education, Clinical Center (MIRECC) Workgroup. (2019). The Association of Resilience on psychiatric, substance use, and physical health outcomes in combat trauma-exposed military service members and veterans. *European Journal of Psychotraumatology, 10(1)*.

Sheerin, C. M., Stratton, K. J., Amstadter, A. B., The VA Mid-Atlantic Mental Illness Research, Education, Clinical Center (MIRECC) Workgroup, & McDonald, S. D. (2018). Exploring Resilience Models in a sample combat exposed military service members and veterans: a comparison and commentary. *European Journal of Psychotraumatology, 9(1)*.

Sheppard, S. C., Malatras, J. W., & Israel, A. C. (2010). The impact of deployment on US military families. *American Psychologist*, *65*(6), 599.

Shepherd, S. M., Willis-Esqueda, C., Newton, D., Sivasubramaniam, D., & Paradies, Y. (2019). The challenge of cultural competence in the workplace: perspectives of healthcare providers. *BMC Health Services Research*, *19*(1), 1-11.

Shigemura, J. & Nomura, S. (2002). Mental health issues of peacekeeping workers. *Psychiatry and Clinical Neurosciences, 56*, 483–491.

Smith, M. G. (2016). Review of the UN high-level independent panel on peace operations, uniting our strength for peace: politics, partnership and people. *Global Governance, 22*, 179–187.

Smith, J. L. & Hollinger-Smith, L. (2015). Savoring, resilience, and psychological well-being in older adults. *Aging & Mental Health, 19(3)*, 192–200.

Southwick, S. M., Bonanno, G. A., Masten, A. S., Panter-Brick, C., & Yehuda, R. (2014). Resilience definitions, theory, and challenges: interdisciplinary perspectives. *European Journal of Psychotraumatology*, *5*(1), 25338.

Southwick, S. M., Sippel, L., Krystal, J., Charney, D., Mayes, L., & Pietrzak, R. (2016). Why are some individuals more resilient than others: the role of social support. *World Psychiatry*, *15*(1), 77.

Spector, P. E., Rosen, C. C., Richardson, H. A., et al. (2019). A new perspective on method variance: A measure-centric approach. *Journal of Management 45*. 855–880.

Spini, D., Bernardi, L., & Oris, M. (2017). Toward a life course framework for studying vulnerability. *Research in Human Development*, *14*(1), 5-25.

Spitzberg, B. H., & Changnon, G. (2009). Conceptualizing intercultural competence. *The SAGE Handbook of Intercultural Competence*, *2*, 52.

Stahl, G. K., Miller, E. L., & Tung, R. L. (2002). Toward the boundaryless career: A closer look at the expatriate career concept and the perceived implications of an international assignment. *Journal of World Business*, *37*(3), 216-227.

Stanley, I. H., Hom, M. A., Chu, C., Dougherty, S. P., Gallyer, A. J., Spencer-Thomas, S., Shelef, L., Fruchter, E., Comtois, K. A., Gutierrez, P. M., & Sachs-Ericsson, N. J. (2019). Perceptions of belongingness and social support attenuate PTSD symptom severity among firefighters: A multistudy investigation. *Psychological Services*, *16*(4), 543.

Stanley, T. D., Carter, E. C., & Doucouliagos, H. (2018). What meta-analyses reveal about the replicability of psychological research. *Psychological bulletin*, *144*(12), 1325.

Stith, B. A., Panzer, A.M. & Goldfrank, L. R. (2003). (eds.). *Preparing for the psychological consequences of terrorism: a public health strategy*. Institute of Medicine (US) Committee on Responding to the Psychological Consequences of Terrorism. Washington (DC): National Academies Press (US).

Stockert, J. P. (2015). Expatriate adjustment of US Military on foreign assignment: the role of personality and cultural intelligence in adjustment (published master's thesis), Minnesota State University Mankato, Minnesota.

Stokes, P., Smith, S., Wall, T., Moore, N., Rowland, C., Ward, T., & Cronshaw, S. (2019). Resilience and the (micro-)dynamics of Organisational ambidexterity: Implications for strategic Human Resource Management. *The International Journal of Human Resource Management, 30(8),* 1287-1322.

Sytine, A.. I, Britt, T. W., Pury, C. L. S. & Rosopa, P. J. (2018). Savouring as a moderator of the combat exposure–mental health symptoms relationship. *Stress and Health, 34,* 582–588. https://doi.org/10.1002/smi.2822

Tabachnick, B. G., & Fidell, L. S. (2001). *SAS for windows workbook for Tabachnick and Fidell using multivariate statistics*. Allyn and Bacon.

Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). *Using multivariate statistics.* (Vol. 5, pp. 481-498). Boston, MA: Pearson.

Tarka, P. (2018). An overview of structural equation modeling: its beginnings, historical development, usefulness and controversies in the social sciences. *Quality & quantity*, *52*(1), 313-354.

Tashakkori, A., & Teddlie, C. (Eds.). (2003). *Handbook of mixed methods in social & behavioral research.* Thousand Oaks, CA: Sage.

Taylor, P. C., & Medina, M. (2011). Educational research paradigms: From positivism to pluralism. *College Research Journal*, *1*(1), 1-16.

Taylor, P. C., Taylor, E. L., & Luitel, B. C. (2012). Multi-paradigmatic transformative research as/for teacher education: An integral perspective. In *Second international handbook of science education* (pp. 373-387). Springer, Dordrecht.

Tedeschi, R. G. (1999). Violence transformed: Posttraumatic growth in survivors and their societies. *Aggression and Violent Behavior*, *4*(3), 319-341.

Terzungwe, A. S., Awopetu, R. G., Aumbur, I. D. & Dooember, T. R. (2016). An Assessment of posttraumatic stress disorder among retired military personnel in Makurdi Metropolis, Nigeria, SSRG *International Journal of Humanities and Social Science (SSRG-IJHSS, 3(2)*, 1-6.

Tharenou, P. (2010). Women's self-initiated expatriation as a career option and its ethical issues. *Journal of Business Ethics*, *95*(1), 73-88.

Thoresen, S. & Mehlum, L. (2006). Suicide in Peacekeepers: Risk Factors for Suicide Versus Accidental Death. *Suicide and Life-Threatening Behavior,* 36*(4)*, 432–442.

Thoresen, S. & Mehlum, L. (2008). Traumatic stress and suicidal ideation in male peacekeepers. *Journal of Nervous Mental Disorder, 196*, 814–821.

Tosh, J. (2002). Gentlemanly Politeness and Manly Simplicity in Victorian England. *Transaction of the Royal Historical Society, 12*, 455-472.

Tosh, J. (2005). Masculinities in an Industrialising Society: Britain, 1800-1914. *Journal of British Studies, 44(2)*, 330-342. http:doi.org/10.1088/427129; (accessed 24 December 2020)

Tourunen, A., Siltanen, S., Saajanaho, M., Koivunen, K., Kokko, K., & Rantanen, T. (2019) Psychometric properties of the 10-item Connor–Davidson resilience scale among Finnish older adults, Aging & Mental Health, DOI: 10.1080/13607863.2019.1683812

Trejo, B. C., Richard, E. M., van Driel, M., & McDonald, D. P. (2015). Cross-cultural competence: The role of emotion regulation ability and optimism. *Military Psychology*, *27*(5), 276-286.

Trotter II, R. T. (2012). Qualitative research sample design and sample size: Resolving and unresolved issues and inferential imperatives. *Preventive Medicine*, *55*(5), 398-400.

Ungar, M. (2008). Resilience across cultures. *The British Journal of Social Work, 38*(2), 218-235.

van Breda, A. D. (2018). A Critical Review of Resilience Theory and its Relevance for Social Work. *Social Work/Maatskaplike Werk, 54(1)*, 1-18.

van Breda, A. D. (2016). Building Resilient Human Service Organisations. *Human Service Organisations, 40(1)*, 62-73.

van Dyk, G. A. J. (2009). The Role of Military Psychology in Peacekeeping Operations: The South African National Defence Force as an Example. *Scientia Militaria, South African Journal of Military Studies, 37(1)*, 113-135.

Vogt, D., Smith, B. N., King, D. W., & King, L. A. (2012). *Manual for the deployment risk and resilience inventory-2 (DRRI-2): A collection of measures for studying deployment-related experiences of military veterans.* Boston, MA: National Center for PTSD

Vitzthum, K., Mache, S., Joachim R., Quarcoo, D. & Groneberg, D. A. (2009). Psychotrauma and effective treatment of post-traumatic stress disorder in soldiers and peacekeepers, *Journal of Occupational Medicine and Toxicology, 4*, 21.

Wahyuni, D. (2012). The research design maze: Understanding paradigms, cases, methods and methodologies. *Journal of Applied Management Accounting Research*, *10*(1), 69-80.

Wald, J., Taylor, S., Asmundson, G. J. G., Jang, K. L., & Stapleton, J. (2006). *Literature review of concepts final report: Psychological resilience*. Toronto, ON: DRDC

Wang, K. T., Heppner, P. P., Wang, L., & Zhu, F. (2015). Cultural intelligence trajectories in new international students: Implications for the development of cross-cultural competence. *International Perspectives in Psychology*, *4*(1), 51-65.

Watkins, M. W. (2018). Exploratory factor analysis: A guide to best practice. *Journal of Black Psychology, 44*(3), 219-246.

Watson, J. C. (2017). Establishing evidence for internal structure using exploratory factor analysis. *Measurement and Evaluation in Counseling and Development, 50*(4), 232-238.

Watson, J. R., Siska, P., & Wolfel, R. L. (2013). Assessing gains in language proficiency, cross-cultural competence, and regional awareness during study abroad: A preliminary study. *Foreign Language Annals*, *46*(1), 62-79.

Weathers, F. W., Bovin, M. J., Lee, D. J., Sloan, D. M., Schnurr, P. P., Kaloupek, D. G., Keane, T. M., & Marx, B. P. (2018). The Clinician-Administered PTSD Scale for DSM–5 (CAPS-5): Development and initial psychometric evaluation in military veterans. *Psychological Assessment, 30*(3), 383-395.

Weathers, F. W., Litz, B. T., Herman, D. S., Huska, J. A., & Keane, T. M. (1993). The PTSD Checklist (PCL): Reliability, validity, and diagnostic utility. Annual Conference of the International Society for Traumatic Stress Studies, San Antonio, TX. Vol 462.

Werner, E.E., & Smith, R.S. (1992). Overcoming the odds: High risk children from birth to adulthood. Ithaca, NY: Cornell University Press.

Wiens, T. W., & Boss, P. (2006). Maintaining family resiliency before, during and after military separation. In C. A. Castro, A. B. Adler, & C. A. Britt (Eds.), Military life: The psychology of serving in peace and combat (Vol. 3, pp. 13–38). Bridgeport, CT: Praeger Security International

Wesołowska, K., Hietapakka, L., Elovainio, M., Aalto, A-M., Kaihlanen, A-M., Heponiemi, T. (2018). The association between cross-cultural competence and well-being among registered native and foreign-born nurses in Finland. PLoS ONE 13(12): e0208761. https://doi.org/10.1371/journal.pone.0208761

Whitworth, J. W., & Ciccolo, J. T. (2016). Exercise and post-traumatic stress disorder in military veterans: a systematic review. *Military Medicine*, *181*(9), 953-960.

Wiens, T. W., & Boss, P. (2006). Maintaining family resiliency before, during, and after military separation. In C. A. Castro, A. B. Adler, & T. W. Britt (Eds.), *Military life: The psychology of serving in peace and combat: The military family* (pp. 13–38). Praeger Security International.

Williamson, V., Murphy, D., Stevelink, S. A. M., Allen, S., Jones, E., & Greenberg, N. (2020). The impact of trauma exposure and moral injury on UK military veterans: a qualitative study, European Journal of Psychotraumatology, 11(1), 1704554, DOI: 10.1080/20008198.2019.1704554

Willis, J. W. (2007). *Foundations of qualitative research: Interpretive and critical approaches*. Thousand Oaks, CA: Sage Publications.

Wilson, S. R., Gettings, P. E., Hall, E. D., & Pastor, R. G. (2015). Dilemmas families face in talking with returning US military service members about seeking professional help for mental health issues. *Health Communication*, *30*(8), 772-783.

Wilson, J., Ward, C., & Fischer, R. (2013). Beyond culture learning theory: What can personality tell us about cultural competence? *Journal of Cross-Cultural Psychology*, *44*(6), 900-927.

Wong, A., Escobar, M., Lesage, A., Loyer, M., Vanier, C. & Sakinofsky, I. (2001). Are UN Peacekeepers at Risk for Suicide? *Suicide and Life-Threatening Behavior* 31*(1)*,103–112.

World Health Organization (WHO). (2005). *Promoting mental health: Concepts, emerging evidence, practice*. WHO.

World Health Organization (WHO). (2019). *Mental health in the workplace: Information sheet*. https://www.who.int/mental_health/in_the_workplace/en/

Wright, K. M., Cabrera, O. A., Eckford, R. D., Adler, A. B., & Bliese, P. D. (2012). The impact of pre-deployment functional impairment on mental health after combat. *Psychological Trauma: Theory, Research, Practice, and Policy*, *4*(3), 260.

Wright, B. K., Kelsall, H. L., Sim, M. R., Clarke, D. M., & Creamer, M. C. (2013). Support mechanisms and vulnerabilities in relation to PTSD in veterans of the Gulf War, Iraq War, and Afghanistan deployments: a systematic review. *Journal of Traumatic Stress*, *26*(3), 310-318.

Xue, C., Ge, Y., Tang, B., Liu, Y., Kang, P., Wang, M., et al. (2015). A Meta-Analysis of Risk Factors for Combat-Related PTSD among Military Personnel and Veterans. *PLoS ONE 10(3);* e0120270. https://doi.org/ 10.1371/journal.pone.0120270

Yin, R. K., (2014). *Case study research: design and methods.* Beverly Hills, Calif: Sage Publications.

Yigit, A. (2018). *When the war came home. The Ottomans' Great War and the devastation of an Empire.* Stanford: Stanford University Press.

Yigit, A. (2014). War and women and the state. The politics of sacrifice in the Ottoman Empire during the First World War. *Journal of Women History, 26(3),* 12-35.

York, R. (2018). Control Variables and Causal Inference: a question of balance. *International Journal of Social Research Methodology, 21(6),* 675-684.

Zang, Y., Gallagher, T., McLean, C. P., Tannahill, H. S., Yarvis, J. S., Foa, E. B., & Strong Star Consortium. (2017). The impact of social support, unit cohesion, and trait resilience on PTSD in treatment-seeking military personnel with PTSD: The role of posttraumatic cognitions. *Journal of Psychiatric Research, 86,* 18-25.

Zimmermann, P., Biesold, K.H., Barre, K. & Lanczik, M. (2007). Long-term course of post-traumatic stress disorder (PTSD) in German soldiers: Effects of inpatient eye movement desensitization and reprocessing therapy and specific trauma characteristics in patients with non-combat-related PTSD. *Military Medicine, 172,* 456-460.http://www.providingforpeacekeeping.org/2014/04/03/contributor-profile-ghana/ (accessed 15 April 2018). http://www.un.org/en/peacekeeping/fatalities/ documents /stats_2apr.pdf (accessed 15 April 2018).

Zwaan, K. & Gerber, A. (2016). The battle for meaning. A cross-national film reception analysis of the Battle Cry of Peace in Switzerland and the Netherlands during World War I. *Early Popular Visual Culture, 14(2),* 168-187.

UNDPKO. 2017. Policy: Peacekeeping intelligence. Approved by: USG DPKO USG DFS Effective date: 2 May 2017. DPKO-DFS/DPET/PBPS Policy Planning Team Review date: 2 May 2019.

UNDPKO (UN Department of Peace Operations). (2021a). Troop and police contributors as of 31st March 2021. UN.

https://peacekeeping.un.org/en/troop-and-police-contributors (accessed on 21 April 2021).

UNDPKO (UN Department of Peace Operations). (2021b). Total fatalities since 1948. UN. https://peacekeeping.un.org/en/fatalities (accessed on 21 April 2021).

APPENDICES

Appendix A: LIST OF MAJOR INTERNAL SECURITY OPERATIONS CONDUCTED BY THE GAF

The GAF continued to be deployed in several internal security operations, either independently or jointly with other security agencies, in the country as part of its constitutional mandate. These include:

- OP CALM LIFE. Operations to combat violent crimes and illegal acts in metropolitan, municipal and districts.
- OP GONGONG. Operations in areas where there are tribal or ethnic conflicts such as in the Volta and Oti (Kete-Krachi, Kpassa, Alavanyo and Nkonya), North East (Bunkpurugu), and Upper East (Bawku) Regions.
- OP HALT. The operations to aid the civil authorities under the auspices of the National Security Committee on Lands and Natural Resources to stop illegal chainsaw lumbering, illegal artisanal mining (Galamsey), encroachment on government lands and pollution of water bodies.
- OP HUNTER. GAF and National Security Task Force personnel deployed to check the smuggling of cocoa and fuel along Ghana's borders with its neighbouring countries in areas such as Aflao (Volta Region), Osei Kojokrom, Akatiso and Debiso (Western Region).
- OP ROADSTAR. Road construction activities led by the 48 Engineer Regiment, with appreciable level of equipment support from foreign governments.
- OP BOAFO. Disaster management operations aimed at timely and punctilious response to disaster situations in the country.

- OP EVERGREEN. This operation aimed at contributing to re-afforestation of the country and getting units involved in agricultural enterprises.
- OP CITADEL. Operations in support of National Security Secretariat, including training and eventual deployment of personnel earmarked for deployment at the Presidency.
- OP SITDOWN LOOK. Operations to observe and report on significant acts at Ghana's borders.
- OP JUBILEE. Operations to provide security for the land-based infrastructure and off-shore activities of the oil industry.
- OP AHODWO. Operations to maintain peace during chieftaincy disputes; Units continued to monitor and on red-alert to intervene in dispute prone-areas.
- OP FLY OVER. Assistance to the Ministry of Roads and Highways for the enforcement of restrictions on usage of bridges by heavy-duty vehicles, especially the Adomi Bridge.
- OP MERCURY. Special operations in support of national security.
- OP COWLEG. Operations to counter the Fulani herdsmen menace.
- OP ASOMDWEE NHYIRA. Contingency plans for the security of key and vulnerable points (e.g., Dams, ECG, GWC installations and facilities).
- OP PEACE TRAIL. GAF assistance to civil authorities to maintain law and order during presidential and parliamentary elections.

Appendix B: Quantitative Study Research Questionnaire

UNIVERSITY OF GHANA

A Research Questionnaire for Ghanaian Peacekeepers

I humbly invite you to serve as a participant in this study which seeks to ***examine military deployment, cross-culture competence, resilience, and mental health of Ghanaian military expatriates.*** The researcher is a final year student pursuing Doctor of Philosophy (PhD) in Human Resource Management at the Department of Organisation and Human Resource Management at the University of Ghana Business School, Legon. The project is intended to provide information for a thesis for the award of an academic degree. Participation in this study is completely voluntary, and all information shall be treated with the strictest of confidentiality. Your participation and cooperation in this study is highly appreciated and valued.

Researchers Contact: In case of any ethical concerns, before, during and after completing the questionnaire, please contact the researcher: SAMPSON KUDJO ADETI, skadeti@yahoo.com, 0244312698, Dept of OHRM, University of Ghana (UG), Legon, Accra, Ghana

Researcher's Supervisors:
Professor Kwesi Amponsah-Tawiah, Head of Dept, Dept of OHRM, UGBS, UG; Professor Joseph Osafo, Head of Dept, Dept of Psychology, UG; Professor Kwasi Dartey-Baah, Senior Lecturer, Dept of OHRM, UGBS, UG.

Do you agree to participate in the survey: 1. Yes [ ] 2.No [ ]

SECTION A: SOCIO-DEMOGRAPHIC (Please *only tick ONE OPITON under each question)*

1. Sex: 1. Male [ ] 2. Female [ ]

2. Age:

1. 20 – 29 [ ] 2. 30 – 39 [ ] 3. 40 -49 [ ]
4. 50 -59 [ ] 5. 60 - 69 [ ]

3. Marital Status:

1. Single [ ] 2. Married [ ] 3. Cohabiting [ ]
4. Divorced [ ] 5. Separated [ ] 6. Widowed [ ]

4. Educational Level:

1. Secondary/Vocational/A/O-level [ ] 2. Diploma/Higher National Diploma [ ]
3. Bachelor Degree [ ] 4. Post-Graduate [ ]

5. Religion:

1. Christian [ ] 2. Muslim [ ]

3. African Traditional [ ] 4.Other [ ] (Specify)…….. ……

6. Service Category: 1. Army [ ] 2. Navy [ ] 3. Air Force [ ] 4. Civilian Employee [ ]

7. Rank Category:

1. Very Senior Commissioned Officer (Cols and above [ ]

2. Senior Commissioned Officer (Lt Col – Major [ ]

3. Junior Commissioned Officer (Capt – 2/Lt) [ ]

4. Senior Warrant Officer/Warrant Officer (SWO – WO) [ ]

5. Senior Non-commissioned Officer (SSgt – Sgt) [ ]

6. Non-commissioned Officer (Cpl – Pte [ ]

8. How long have you been in the Service?

(1) 1 to 5 years [ ] (2) 5 to 10 years [ ] (3) 10 to 15 years [ ]

(4) 15 to 20 years [ ] (5) 20 years and beyond [ ]

9. Which Trade Section are you usually assigned at your Unit?

1. Core Military Duties [ ] 2. Administrative Duties [ ]

3. Other Supporting Services [ ]

10. How many UN operations have you served on?

1. One [ ] 2. Two [ ] 3. Three [ ] 4. Four [ ] 5. Five or more [ ]

11. Indicate the operation/s you have served on.

1. UNIFIL (Lebanon) [ ] 2. UNMIL (Liberia) [ ]

3. MINUSMA (Mali) [ ] 4. UNMISS (South Sudan) [ ]

5. UNOCI GHAV (Cote D'Ivoire) [ ] 6. MONUSCO (Congo) [ ]

7. UNAMIR (Rwanda) [ ] 8. UNAMID (Darfur) [ ]

9. ECOMOG (Liberia) [ ] 10. UNAMSIL (Sierra Leone) [ ]

11. UNOCI GHAV (Cote D'Ivoire) [ ] 12. MINURSO (Western Sahara) [ ]

13. Other [ ]

12. What was your last operational area?

1. UNIFIL (Lebanon) [ ] 2. UNMIL (Liberia) [ ]

3. MINUSMA (Mali) [ ] 4. UNMISS (South Sudan) [ ]

5. UNOCI GHAV (Cote D'Ivoire) [ ] 6. MONUSCO (Congo) [ ]

7. UNAMIR (Rwanda) [ ] 8. UNAMID (Darfur) [ ]

9. ECOMOG (Liberia) [ ] 10. UNAMSIL (Sierra Leone) [ ]

11. UNOCI GHAV (Cote D'Ivoire) [ ] 12. MINURSO (Western Sahara) [ ]

13. Other [ ]

13. What was the nature of your service in your predominant mission(s)?

(1) Commander [ ] (2) Contingent Member [ ]

(3) Staff Officer [ ] (4) Military Observer [ ]

14. What was the duration of your last UN operation?

(1) Up to 6 months [ ] (2) 7 - 12 months [ ]

(3) 13 - 18 months [ ] (4) beyond 19 months [ ]

15. When did you return from your last operational area?

(1) 1- 12 months ago [ ] (2) 13- 24 months ago [ ]

(3) 25- 36 months ago [ ] (4) More than 36 months ago [ ]

Section B: Military Deployment Practices

Below are statements about deployment practices by the military for ***your most recent deployment***.

Please mark how much you agree or disagree with each statement by any one of the following:

1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree;

4 = Agree; 5 = Strongly agree

MD1: I was given sufficient notification of the intended deployment.	1	2	3	4	5
MD2: I was medically and dentally examined and deemed fit for deployment	1	2	3	4	5
MD3: I was required to attend counseling after being selected for deployment	1	2	3	4	5
MD4: I was required to attend counseling post-deployment	1	2	3	4	5
MD5: I was accurately informed about the role we were expected to play in the deployment.	1	2	3	4	5
MD6: I had all the supplies and equipment needed to get my job done.	1	2	3	4	5
MD7: The training I received made me feel confident in my ability to use my equipment.	1	2	3	4	5
MD8: The training I received prepared me to deal with the deployment climate	1	2	3	4	5
MD9: I received enough training to protect myself in case of an attack.	1	2	3	4	5
MD10: I received appropriate training for the nature of the deployment I experienced	1	2	3	4	5
MD11: The training I received made me feel confident in my ability to perform tasks assigned to me during deployment.	1	2	3	4	5
MD12: The training I received taught me everything I needed to know for deployment.	1	2	3	4	5
MD13: My unit was like family to me during my most recent deployment	1	2	3	4	5
MD14: People in my unit were trustworthy during my most recent deployment	1	2	3	4	5
MD15: My fellow unit members appreciated my efforts in the deployment	1	2	3	4	5
MD16: I felt valued by my fellow unit members during in the deployment	1	2	3	4	5
MD17: Members of my unit were interested in my wellbeing	1	2	3	4	5

MD18: My fellow unit members were interested in what I thought and how I felt about things during my most recent deployment.	1	2	3	4	5
MD19: My unit leader(s) were interested in what I thought and how I felt about things during my most recent deployment.	1	2	3	4	5
MD20: I felt like my efforts really counted to the leaders in my unit	1	2	3	4	5
MD21: My service was appreciated by the leaders in my unit	1	2	3	4	5
MD22: I could go to unit leaders for help if I had a problem or concern	1	2	3	4	5
MD23: The leaders of my unit were interested in my personal welfare	1	2	3	4	5
MD24: I felt valued by the leaders of my unit	1	2	3	4	5

Section C: Mental Health of Military Expatriate

Below is a list of problems and complaints that people sometimes have in response to stressful military experiences. Please read each one carefully, and then circle one of the numbers to the right to indicate how much you have been bothered by that problem ***during/after your most recent deployment.***

0 = Not at all true; 1 = rarely true; 2 = Sometimes true; 3 = Often true; 4= Always True

PT1: Repeated, disturbing memories, thoughts, or images of a stressful experience from the operations?	0	1	2	3	4
PT2: Repeated, disturbing dreams of a stressful experience from the past?	0	1	2	3	4
PT3: Suddenly acting or feeling as if a stressful experience were happening again (as if you were reliving it)?	0	1	2	3	4
PT4: Feeling very upset when something reminded you of a stressful experience from the past?	0	1	2	3	4
PT5: Having physical reactions (e.g., heart pounding, trouble breathing, or sweating) when something reminded you of a stressful experience from the past?	0	1	2	3	4

PT6: Avoid thinking about or talking about a stressful experience from the past or avoid having feelings related to it?	0	1	2	3	4
PT7: Avoid activities or situations because they remind you of a stressful experience from the past?	0	1	2	3	4
PT8: Trouble remembering important parts of a stressful experience from the past?	0	1	2	3	4
PT9: Loss of interest in things that you used to enjoy?	0	1	2	3	4
PT10. Feeling distant or cut off from other people?	0	1	2	3	4
PT11. Feeling emotionally numb or being unable to have loving feelings for those close to you?	0	1	2	3	4
PT12. Feeling as if your future will somehow be cut short?	0	1	2	3	4
PT13. Trouble falling or staying asleep?	0	1	2	3	4
PT14. Feeling irritable or having angry outbursts?	0	1	2	3	4
PT15. Having difficulty concentrating?	0	1	2	3	4
PT16. Being "super alert" or watchful on guard?	0	1	2	3	4
PT 17. Feeling jumpy or easily startled?	0	1	2	3	4
PT 18. Little interest or pleasure in doing things?	0	1	2	3	4
PT 19. Feeling down, depressed or hopeless?	0	1	2	3	4
PT 20. Trouble falling or staying asleep or sleeping too much?	0	1	2	3	4
PT 21. Feeling tired or having little energy?	0	1	2	3	4
PT 22. Poor appetite or overeating?	0	1	2	3	4
PT 23. Feeling bad about yourself or that you are a failure or have let yourself or family down?	0	1	2	3	4
PT 24. Trouble concentrating on things such as reading or watching TV?	0	1	2	3	4
PT 25. Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3	4

Section D: Personal Resources (Resilience and Cross-cultural Intelligence)

Please indicate the extent to which you agree or disagree with each statement by ticking any one of the following responses that applies to you.

1 = Strongly disagree; 2 = Disagree; 3 = Neutral 4 = Agree; 5 = Strongly agree

RS1: I am able to adapt to change	1	2	3	4	5
RS2: I can deal with whatever comes	1	2	3	4	5
RS3: I try to see the humorous side of things	1	2	3	4	5
RS4: I know coping with stress can strengthen me	1	2	3	4	5
RS5: I tend to bounce back after illness or hardship	1	2	3	4	5
RS6: I can achieve goals despite obstacles	1	2	3	4	5
RS7: I can stay focused under pressure	1	2	3	4	5
RS8: I am not easily discouraged by failure	1	2	3	4	5
RS9: I think of myself as a strong person	1	2	3	4	5
RS10: can handle unpleasant feelings	1	2	3	4	5

Cross-cultural Intelligence

CC1: I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	1	2	3	4	5
CC2: I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.	1	2	3	4	5
CC3: I am conscious of the cultural knowledge I apply to cross–cultural interactions.	1	2	3	4	5
CC4: I check the accuracy of my cultural knowledge as I interact with people from different cultures	1	2	3	4	5
CC5: I know the legal and economic systems of other cultures.	1	2		4	5
CC6: I know the rules (e.g., vocabulary, grammar) of other languages.	1	2	3	4	5
CC7: I know the cultural values and religious beliefs of other cultures.	1	2	3	4	5
CC8: I know the marriage systems of other cultures.	1	2	3	4	5

CC9: I know the arts and crafts of other cultures.	1	2	3	4	5
CC10: I know the rules for expressing non-verbal behaviors in other cultures	1	2	3	4	5
CC11: I enjoy interacting with people from different cultures.	1	2	3	4	5
CC12: I am confident that I can socialize with locals in a culture that is unfamiliar to me.	1	2	3	4	5
CC13: I am sure I can deal with the stresses of adjusting to a culture that is new to me.	1	2	3	4	5
CC14: I enjoy living in cultures that are unfamiliar to me.	1	2	3	4	5
CC15: I am confident that I can get accustomed to the shopping conditions in a different culture	1	2	3	4	5
CC16: I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.	1	2	3	4	5
CC17: I use pause and silence differently to suit different cross-cultural situations.	1	2	3	4	5
CC18: I vary the rate of my speaking when a cross-cultural situation requires it.	1	2	3	4	5
CC19: I change my non-verbal behavior when a cross-cultural situation requires it.	1	2	3	4	5
CC20: I alter my facial expressions when a cross-cultural interaction requires it	1	2	3	4	5

Your participation and cooperation in this study is highly appreciated and valued.

Thank you.

Appendix C: Qualitative Study Semi-Structured Interview Guide

Military Deployment, Cross-Cultural Competence, Resilience and Mental Health Outcomes of Ghanaian Military Expatriates

Introduction

I am Sampson Kudjo ADETI. I humbly invite you to serve as a participant in this study which seeks to *examine military deployment, cross-culture competence, resilience, and mental health of Ghanaian military expatriates.* The project is intended to provide information for a PhD thesis for the award of an academic degree at the University of Ghana, Legon. Participation in this study is completely voluntary, and all information shall be treated with the strictest of confidentiality. Your participation and cooperation in this study is highly appreciated and valued.

Section A: Questions on Demographic Particulars

1. Sex
2. Age
3. Educational level
4. Service Category
5. Rank Category
6. Mission Area
7. Duration of mission
8. Time of departure to Mission area
9. Time of return from Mission area
10. Number of missions

Section B: Questions on Military Deployment and Mental Health

11. Could you recount your experiences at the operational area (challenges, achievements)?

12. Would you say your pre-deployment experience to operational areas was stressful or exciting and why?

13. Describe traumatic events and stressful situations you were exposed as a group or as an individual during international peacekeeping operations.

14. How did your exposure to traumatic events and stressful events affect you?

15. Describe the deployment practices/activities and process of GAF. What is your view about practices?

16. Do pre-deployment practices and preparations affect the (a) health and wellbeing of personnel, and (b) their ability to cope with traumatic events and stressful events?"

17. What kind social support did you receive from your unit leaders and colleagues in your international peacekeeping assignments?

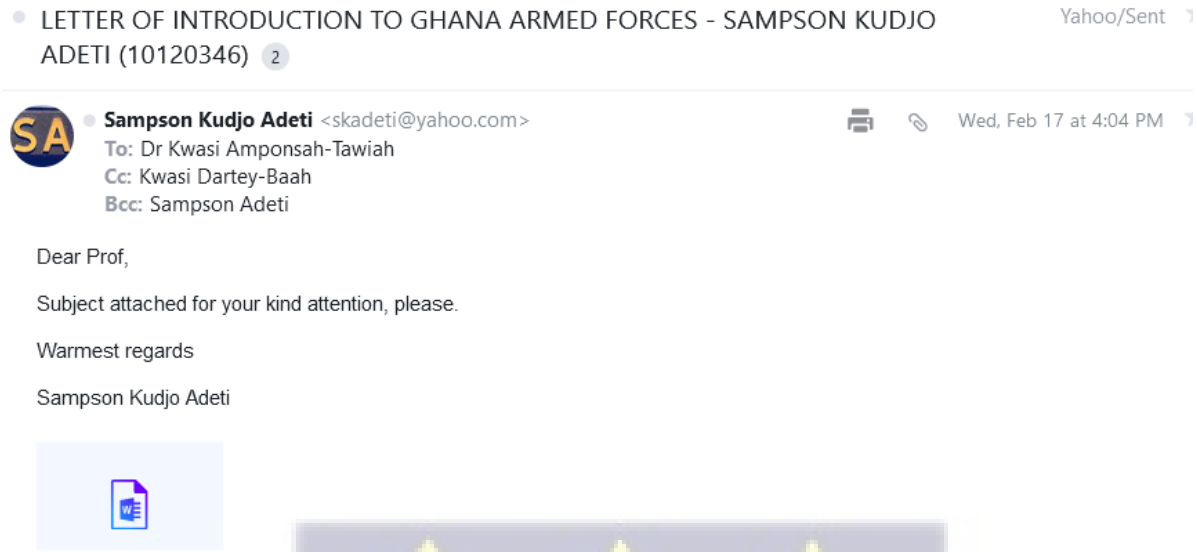
18. How did these social support from your colleagues and leaders) help you in coping with traumatic events and stressful events?"

19. Have you received any training as an international peacekeeper in how to conduct yourself in the cultural environments of your mission areas?

20. How did your experience with the cultural practices of the mission area affect your mental health?

21. How has your personal resilience made you cope with mental health issues at pre-deployment and during deployment phases of your international peacekeeping assignments?

Appendix D: Request from Researcher to Head of Department (HOD), OHRM, for Letter of Introduction to Chief of the Defence Staff



LETTER OF INTRODUCTION TO GHANA ARMED FORCES - SAMPSON KUDJO ADETI (10120346) 2

Yahoo/Sent

Sampson Kudjo Adeti <skadeti@yahoo.com>
To: Dr Kwasi Amponsah-Tawiah
Cc: Kwasi Dartey-Baah
Bcc: Sampson Adeti

Wed, Feb 17 at 4:04 PM

Dear Prof,

Subject attached for your kind attention, please.

Warmest regards

Sampson Kudjo Adeti

Sampson Kudjo Adeti
c/o Department of Organisation and Human Resources Management
University of Ghana Business School
University of Ghana
LEGON
Accra
skadeti@yahoo.com

17 February 2021

Professor K Amponsah-Tawiah
Head of Department
Department of Organisation and
Human Resources Management
University of Ghana Business School
University of Ghana
LEGON

Dear Sir,

LETTER OF INTRODCUTION TO GHANA ARMED FORCES
SAMPSON KUDJO ADETI (10120346) – PhD 4
ETHICAL CLEARANCE - ECH/151/19-20

I wish to respectfully request a Letter of Introduction to seek approval from the Chief of the Defence Staff to enable me administer questionnaire and collect information from personnel of the Ghana Armed Forces for my thesis.

The title of my thesis is:
MILITARY DEPLOYMENT, CROSS-CULTURAL COMPETENCE, RESILIENCE AND MENTAL HEALTH OUTCOMES OF GHANAIAN MILITARY EXPATRIATES

The survey questionnaire (sample to be attached to the Letter of Introduction) will be administered to about 350 – 500 personnel.

The letter should be addressed as follows:

The Chief of the Defence Staff
General Headquarters
Ghana Armed Forces
BURMA CAMP
ACCRA

Respectfully submitted for further action, please.

SAMPSON KUDJO ADETI
Student

Appendix E: Application for Ethical Clearance from Researcher to ECH

Sampson Kudjo Adeti <skadeti@yahoo.com>
To: ech@ug.edu.gh

Mon, Mar 2, 2020 at 5:09 PM

Dear Sir/Madam,

Attached please find soft copy in respect of my application.

Warmest regards

Sampson Kudjo Adeti
Department of Organisation & HRM
University of Ghana Business School
P.O. Box LG 78
Legon

Appendix F: Ethical Clearance (ECH 151 /19-20) Title of Protocol: Pre-Deployment and Post-Operational Interventions for Mental Health Among Peacekeepers of the Ghana Armed Forces

UNIVERSITY OF GHANA
ETHICS COMMITTEE FOR THE HUMANITIES (ECH)
P. O. Box LG 74, Legon, Accra, Ghana

My Ref. No...ECH 151 /19-20 ...

June 22nd, 2020

Mr. Sampson Kudjo Adeti
Department of Organisation & HR Management
University of Ghana
Legon

ETHICAL CLEARANCE
(ECH 151 /19-20)

The protocol tittle below has been reviewed and approved by the ECH Committee.

TITLE OF PROTOCOL: **PRE-DEPLOYMENT AND POST-OPERATIONAL INTERVENTIONS FOR MENTAL HEALTH AMONG PEACEKEEPERS OF THE GHANA ARMED FORCES**

PRINCIPAL INVESTIGATOR: **MR. SAMPSON KUDJO ADETI**

Please note that the final review report must be submitted to the Committee at the completion of the study. Your research records may be audited at any time during or after the implementation. Any modification of this research project must be submitted to ECH for review and approval prior to implementation.

Please report all serious adverse events related to this study to ECH within seven (7) days verbally and in writing within fourteen (14) days.

This certificate is valid till June 21st, 2021. You are to submit annual reports for continuing review.

Please accept my congratulations.

Yours Sincerely,

Professor C. Charles Mate-Kole
ECH Chair

Cc: Professor Kwesi Amponsah-Tawiah, University of Ghana Business School, UG
Professor Joseph Osafo, Department of Psychology, UG
Dr. Kwasi Dartey-Baah, University of Ghana Business School, UG

Appendix G: Letter of Introduction from HOD to Chief of the Defence Staff

UNIVERSITY OF GHANA
BUSINESS SCHOOL
DEPARTMENT OF ORGANISATION AND HUMAN RESOURCE MANAGEMENT

UGBS
University of Ghana Business School

Ref. No.: .....

1st April, 2021

The Chief of the Defence Staff
General Headquarters
Ghana Armed Forces
Burma Camp
Accra.

Dear Sir,

LETTER OF INTRODUCTION:
SAMPSON KUDJO ADETI - ID: 10120346 (0244312698)

This is to introduce to you the above-named PhD Candidate of the University of Ghana Business School.

As part of the requirements for the award of the degree, he is expected to write a thesis for which he has chosen the topic "*Military Deployment, Cross-Cultural Competence, Resilience and Mental Health Outcomes of Ghanaian Military Expatriates*".

He has intentions to gather data from your institution as his study organisation, which would require the administration and collection of questionnaires, as well as conducting interviews as part of the data gathering process. This is to enable him meet the objectives of his research.

I should be very grateful if you could provide the necessary information and assistance required for the successful completion of his thesis. I must emphasize that this information is for academic purposes only.

Thank you for your kind cooperation.

Yours faithfully,

Prof. Kwesi Amponsah-Tawiah
Head of Department / Supervisor
Kamponsah-Tawiah@ug.edu.gh

COLLEGE OF HUMANITIES
P.O. Box LG 73, Legon, Accra, Ghana
• Telephone: +233 (0) 303 963 756 • Email: ughumcom@ug.edu.gh • Website: ughs.ug.edu.gh

Appendix H: Explanatory Letter of Introduction from Researcher to Chief of the Defence Staff on Methodology for Data Collection

Sampson Kudjo Adeti
Department of Organisation and
Human Resources Management
University of Ghana Business School
University of Ghana
LEGON
Accra

skadeti@yahoo.com

Tel: 0244312698

SKAD/UGBS/10120346/21

April 2021

The Chief of Defence Staff
General Headquarters
Ghana Armed Forces
Burma Camp

Dear Sir,

REQUEST TO CONDUCT SURVEY IN GHANA ARMED FORCES
SAMPSON KUDJO ADETI (10120346) – PhD 4

I am in the final of my 4-year PhD program at the University of Ghana Business School.

As part of prog.am, I am required to submit a thesis on the following topic:

"MILITARY DEPLOYMENT, CROSS-CULTURAL COMPETENCE, RESILIENCE AND MENTAL HEALTH OUTCOMES OF GHANAIAN MILITARY EXPATRIATES"

Literature review so far has concluded that I am the first student to undertake search a study. Consequently, Ethical Clearance has been given by the University of Ghana Ethics Committee on Humanities for the study.

Subject to approval, the survey will be conducted in four stages (see Annex A attached) as follows:

a. Stage I - Administer questionnaire to stated number of randomly selected respondents.

b. Stage II - Administer questionnaire to respondents selectively by rank (purposively).

c. Stage III - Conduct oral interviews with respondents selected by rank amongst Stage II respondents

d. Stage IV - Conduct focused interviews with respondents in Stage III.

A copy of the questionnaire is attached as Annex B. The survey is expected to be concluded within one (1) month after GAF approval.

Respectfully submitted for further action, please.

SAMPSON KUDJO ADEFI
Researcher

Information:

The Chief of Army Staff
Army Headquarters
Burma Camp

The Chief of Naval Staff
Naval Headquarters
Burma Camp

The Chief of Air Staff
Air Force Headquarters
Burma Camp

The Commandant
Ghana Armed Forces Command and Staff College

Appendix I: Letter of Approval from Ghana Armed Forces

Personnel Administration
General Headquarters
Ghana Armed Forces
BURMA CAMP

Accra 776474

GHQ/6383/PS1

21 June 2021

Sampson Kudjo Adeti
Department of Organisation and
Human Resources Management
University of Ghana Business School
University of Ghana
LEGON
Accra

REQUEST TO CONDUCT SURVEY IN THE GHANA ARMED FORCES
MAJOR GENERAL SAMPSON KUDJO ADETI (RETIRED)

1. I am to convey the approval of your request to conduct a survey on the topic; **"Military Deployment, Cross-Cultural Competence, Resilience and Mental Health Outcomes of Ghanaian Military Expatriates"**. You are to contact the relevant Command(s)/Unit(s) for your required information.

2. Additionally, I am to convey that you should be guided by military regulations which spell out information or materials whose unauthorized disclosure could be detrimental to the interest of the Ghana Armed Forces and the nation as a whole. Furthermore, I am to request that a copy of your completed research work should be forwarded to this Department for retention.

3. Respectfully submitted, please.

E AWARIBEY
Colonel
for Director General

Appendix 4A: Percentage of Missing Values

Univariate Statistics

	N	Mean	Std. Deviation	Missing		No. of Extremes[a]	
				Count	Percent	Low	High
MD8	429	3.7576	1.12821	5	1.2	34	0
MD9	429	3.9114	1.04639	5	1.2	41	0
MD10	429	3.8578	1.04828	5	1.2	51	0
MD11	429	3.9068	1.07246	5	1.2	49	0
MD12	428	3.6893	1.04654	6	1.4	22	0
MD13	429	3.7040	1.04054	5	1.2	23	0
MD14	429	3.6037	1.03742	5	1.2	23	0
MD15	429	3.8695	1.00546	5	1.2	42	0
MD16	429	3.7902	1.04916	5	1.2	22	0
MD17	428	3.6963	1.01339	6	1.4	19	0
MD18	429	3.5641	1.02479	5	1.2	25	0
MD19	429	3.6457	1.03462	5	1.2	21	0
MD20	429	3.8392	1.05004	5	1.2	0	0
MD21	429	3.8834	1.01642	5	1.2	0	0
MD22	429	3.9021	1.00686	5	1.2	0	0
MD23	428	3.6986	1.08871	6	1.4	28	0
MD24	427	3.8220	1.07519	7	1.6	1	0
PT1	428	1.7196	1.35705	6	1.4	0	0
PT2	429	1.3776	1.31741	5	1.2	0	0
PT3	429	1.4312	1.37503	5	1.2	0	0

PT4	427	1.5105	1.33630	7	1.6	0	0
PT5	427	1.1710	1.26205	7	1.6	0	0
PT6	426	1.4366	1.29505	8	1.8	0	0
PT7	427	1.3747	1.31089	7	1.6	0	0
PT8	427	1.2904	1.31976	7	1.6	0	0
PT9	425	1.3718	1.32222	9	2.1	0	0
PT10	425	1.3600	1.35626	9	2.1	0	0
PT11	426	1.1995	1.34780	8	1.8	0	0
PT12	426	1.0892	1.33779	8	1.8	0	0
PT13	426	1.2793	1.38544	8	1.8	0	0
PT14	425	1.2188	1.34116	9	2.1	0	0
PT15	427	1.3255	1.38888	7	1.6	0	0
PT16	425	1.8447	1.43717	9	2.1	0	0
PT17	426	1.31690	1.385826	8	1.8	0	0
PT18	425	1.4000	1.39236	9	2.1	0	0
PT19	426	1.1643	1.33240	8	1.8	0	0
PT20	426	1.3028	1.37193	8	1.8	0	0
PT21	427	1.4637	1.36195	7	1.6	0	0
PT22	427	1.3630	1.38971	7	1.6	0	0
PT23	427	1.1663	1.36797	7	1.6	0	0
PT24	426	1.2042	1.36961	8	1.8	0	0
PT25	426	1.0986	1.35113	8	1.8	0	0
RS1	425	3.9271	1.04016	9	2.1	38	0
RS2	426	3.9131	.94531	8	1.8	0	0
RS3	428	3.7336	1.01469	6	1.4	20	0

RS4	427	3.7635	1.04490	7	1.6	23	0
RS5	428	3.8692	.97830	6	1.4	0	0
RS6	428	3.9720	.94542	6	1.4	31	0
RS7	427	3.9087	1.01565	7	1.6	43	0
RS8	427	4.0422	.99676	7	1.6	38	0
RS9	428	4.1472	.93303	6	1.4	30	0
RS10	426	3.9531	.95924	8	1.8	38	0
CC1	427	3.9555	.98123	7	1.6	37	0
CC2	426	3.9225	.90547	8	1.8	.	.
CC3	427	3.9344	.89883	7	1.6	.	.
CC4	427	3.8876	.88626	7	1.6	.	.
CC5	427	3.3607	.99584	7	1.6	19	0
CC6	424	3.1392	1.03917	10	2.3	0	0
CC7	425	3.4329	1.00510	9	2.1	20	0
CC8	426	3.2653	1.07706	8	1.8	30	0
CC9	427	3.2295	1.04084	7	1.6	31	0
CC10	427	3.3021	1.05709	7	1.6	25	0
CC11	426	3.8756	.92851	8	1.8	.	.
CC12	427	3.8852	.92612	7	1.6	.	.
CC13	427	3.8033	.97320	7	1.6	.	.
CC14	427	3.5855	1.03419	7	1.6	20	0
CC15	425	3.6612	.96301	9	2.1	18	0
CC16	426	3.4883	1.08730	8	1.8	30	0
CC17	427	3.5878	.93630	7	1.6	14	0
CC18	427	3.7143	.92328	7	1.6	12	0

CC19	427	3.6674	.96022	7	1.6	17	0
CC20	426	3.6221	.97758	8	1.8	14	0
MD1	431	3.9884	1.15431	3	.7	51	0
MD2	430	4.2233	1.03389	4	.9	34	0
MD3	432	2.3704	1.25676	2	.5	0	0
MD4	429	2.3753	1.27757	5	1.2	0	0
MD5	429	3.9091	1.06720	5	1.2	49	0
MD6	429	3.4662	1.20237	5	1.2	44	0
MD7	429	3.8858	1.07151	5	1.2	50	0
SD1	434			0	.0		
SD2	434			0	.0		
SD3	434			0	.0		
SD4	432			2	.5		
SD5	432			2	.5		
SD6	432			2	.5		
SD7	432			2	.5		
SD8	432			2	.5		
SD9	430			4	.9		
SD10	424			10	2.3		
SD13	425			9	2.1		
SD14	427			7	1.6		
SD15	427			7	1.6		

Appendix 4B: Assessment of Outliers - Observations farthest from the centroid (Mahalanobis distance)

Observation number	Mahalanobis d-squared	p1	p2
99	32.108	.001	.417
404	29.162	.004	.446
113	27.858	.006	.418
380	26.732	.008	.446
348	26.653	.009	.276
84	26.136	.010	.239
135	26.094	.010	.133
64	25.816	.011	.095
70	25.500	.013	.074
179	25.136	.014	.066
355	24.883	.015	.052
170	24.803	.016	.029
68	24.471	.018	.029
351	24.429	.018	.015
131	23.778	.022	.035
307	23.384	.025	.046
303	23.163	.026	.043
343	22.939	.028	.042
194	22.604	.031	.055
269	22.084	.037	.111
190	21.604	.042	.196
46	21.430	.044	.196
130	20.954	.051	.330
22	20.907	.052	.277
107	20.710	.055	.298
53	20.514	.058	.324
384	20.431	.059	.295
270	20.354	.061	.265
301	20.254	.062	.249
365	20.252	.062	.192
358	20.011	.067	.244
162	19.986	.067	.199
382	19.853	.070	.205
6	19.733	.072	.207
209	19.687	.073	.177
323	19.684	.073	.135
356	19.576	.076	.134
383	19.550	.076	.108

Observation number	Mahalanobis d-squared	p1	p2
173	19.383	.080	.128
285	19.251	.083	.139
59	19.092	.086	.163
195	19.087	.086	.127
34	18.887	.091	.170
126	18.818	.093	.159
287	18.813	.093	.125
145	18.773	.094	.107
344	18.687	.096	.106
33	18.518	.101	.137
115	18.476	.102	.120
109	18.340	.106	.141
106	18.256	.108	.142
350	18.112	.112	.171
89	18.008	.115	.185
160	17.946	.117	.177
122	17.869	.120	.178
73	17.861	.120	.146
243	17.837	.121	.124
151	17.826	.121	.101
289	17.822	.121	.079
274	17.713	.125	.090
18	17.576	.129	.114
188	17.549	.130	.098
193	17.546	.130	.077
127	17.358	.137	.120
373	17.284	.139	.123
104	17.281	.139	.098
361	17.196	.142	.106
378	17.078	.147	.129
214	17.048	.148	.114
247	16.871	.155	.170
152	16.721	.160	.225
20	16.699	.161	.200
259	16.654	.163	.192
233	16.645	.163	.163
112	16.640	.164	.136
353	16.619	.164	.118
245	16.546	.167	.125
368	16.487	.170	.126
375	16.370	.175	.158

Observation number	Mahalanobis d-squared	p1	p2
281	16.297	.178	.168
224	16.159	.184	.221
153	16.084	.187	.236
132	16.003	.191	.257
114	15.936	.194	.269
202	15.916	.195	.244
391	15.881	.197	.232
141	15.846	.198	.220
149	15.819	.200	.203
282	15.806	.200	.179
35	15.703	.205	.215
16	15.674	.207	.200
232	15.587	.211	.228
181	15.573	.212	.203
271	15.178	.232	.515
93	15.131	.234	.515
117	15.071	.238	.530
294	15.015	.241	.540
234	14.951	.244	.559
85	14.901	.247	.564
96	14.816	.252	.605