

The Relationship Between Combat Exposure and Psychosocial Wellbeing Among Deployed Military Personnel: A Review of Empirical Literature



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Abstract

Aim: The study aimed to systematically review empirical literature to examine the relationship between combat exposure and psychosocial well-being among deployed military personnel. Several studies have explored the concepts of combat exposure and psychological well-being.

Methods: The study systematically reviewed peer-reviewed empirical studies published between 2013 and 2023, focusing on combat-related mental health outcomes. Despite extensive research, the complex interaction between combat exposure and psychological well-being remains insufficiently understood, necessitating a comprehensive review to inform effective interventions and support systems. The research was founded on the Post-Traumatic Stress Disorders theory and stress response theory. A systematic search was conducted using Google Scholar, PsycINFO, and PubMed. The inclusion criteria considered studies with empirical data, focusing on military populations, and published in English. Exclusion criteria included duplicate studies, abstracts-only papers, and studies without a clear focus on combat exposure and psychosocial wellbeing.

Results: The findings indicate that combat exposure is a significant risk factor for PTSD, anxiety, and depression. Key themes emerging from the review include coping mechanisms and resilience, the impact of combat intensity, the prevalence of psychological disorders, and the effectiveness of intervention and support systems. Combat intensity correlates with higher PTSD rates, while resilience and social support mitigate these effects.

Conclusion: The study concludes that combat exposure significantly increases the risk of PTSD, anxiety, and depression among military personnel, with reported prevalence rates varying based on combat intensity and duration.

Recommendations: Structured resilience training, mental health screening, and evidence-based therapies should be implemented to enhance military mental health. Future research should explore long-term psychological adaptation among combat veterans across different cultural contexts.

Keywords: *Combat exposure, psychological wellbeing, post-traumatic stress disorders, military mental health, military personnel, psychological disorders, anxiety, depression.*

INTRODUCTION

Combat exposure refers to the participation of military personnel in combat situations involving the threat of harm or death. These experiences range from direct engagement with the enemy to witnessing death and destruction (Brewin *et al.*, 2017). The psychological impact of combat exposure has been the subject of extensive research, given its profound implications for the mental health of veterans and active-duty military personnel (Mitchell *et al.*, 2020). Psychological well-being encompasses a range of mental health outcomes, including Post-Traumatic Stress Disorder (PTSD), depression, anxiety, and other stress-related disorders (Hoge *et al.*, 2014). The severity of psychological outcomes varies with the intensity and frequency of combat exposure (Smith *et al.*, 2021). Brenner *et al.* (2019) concluded that frequent exposure to combat situations correlates with higher incidences of PTSD.

The psychosocial well-being of military personnel on international deployment has become a key policy issue (Graham *et al.*, 2019; Shiraz *et al.*, 2014). It is the presence of positive relations with other people, that focus on life's meaning and purpose, personal growth and development, autonomy, and personal mastery (Harms *et al.*, 2013). Psychosocial well-being intersects psychological and social factors that contribute to personal overall mental health and life quality (Seligman, 2011). The concept of psychosocial well-being involves the integration of psychological well-being and social wellness (Ann & Nora, 2012; Bog *et al.*, 2018). It encompasses an individual's emotional and mental state, including factors like happiness, life satisfaction and the ability to cope with stress (Kahneman *et al.*, 1999). On the other hand, social wellness focuses on individual qualities in relationships, social support networks, and the ability to engage positively with others (Diener, *et al.*, 2003). Therefore, psychosocial well-being is a holistic concept that recognizes the interconnectedness of mental and social elements in shaping an individual's overall sense of wellness (Keyes, 2002).

Combat exposure can significantly impact psychosocial well-being due to the intense and often traumatic nature of military experiences (Maguen & Litz, 2012). Individuals who have been exposed to combat may face challenges such as post-traumatic stress, anxiety, and depression (Vasterling *et al.*, 2010). The stressors associated with combating expositions can affect one's psychological state leading to difficulties in adjusting to civilian life, maintaining relationships, and finding a sense of purpose (Litz & Schlenger, 2009) and may also affect peoples' psychosocial well-being. Combat exposure may strain interpersonal relationships, as individuals struggle with communication, trust issues, or emotional distance (Hoge & Castro, 2006). Reintegration into society can be challenging, and the stigma surrounding mental health issues may hinder seeking support. The overall linkage between combat exposure and psychosocial well-being underscores the need for comprehensive support systems, including mental health services, social support networks, and programs aimed at aiding the transition from military to civilian life (Porter *et al.*, 2018). Therefore, addressing the psychological and social dimensions is crucial for promoting the overall well-being of individuals who have experienced combat (Dami *et al.*, 2018).

Since 2001 millions of troops have been deployed to various active combat zones. This has in turn created an exceptional call to advance the skills and knowledge on neurobiological consequences related to combat exposure and war zones at the same time investigating potential wellbeing of targets (Kessler *et al.*, 2015). Several scholars established that combat exposure has the potential to impact various organ systems either indirectly or directly through health behaviours. Britt *et al.*

(2017) gave a predicted estimation that the dominance of military personnel experiencing PTSD through combat exposure across the globe was to rise to 25% by the year 2020. It was also postulated that the majority of military officers persistently reported higher physical health functioning levels (Fulton *et al.*, 2015; Porter *et al.*, 2018). The psychosocial well-being of military personnel was found to be influenced directly by their deployment missions (Bøg *et al.*, 2014; Boasso *et al.*, 2015; Booth-Kewlev *et al.*, 2010; Booth-Kewlev *et al.*, 2013; Boulous & Zamorski, 2016). Additionally, the nature of the military operations was found to imply that the risks related to combat exposure are also likely to affect support staff in the military (Cesur *et al.*, 2012; Bramsen *et al.*, 2000; Bray *et al.*, 2010; Breen-Lopez, 2014; Britt *et al.*, 2017). Among studies that focused on the linkage between combat exposure against psychosocial well-being, the aspect of psychological well-being tracked included common mental disorders including anxiety, substance abuse, depression, PTSD, and dependence.

According to Liliana *et al.* (2020), approximately 13% to 32% of combat military personnel experience psychological challenges upon returning from war zones. Research has further indicated that combatants from America, China, Vietnam, Korea, South Africa, Kenya, and Nigerian return from combat zones suffering from posttraumatic stress disorders (Cornell *et al.*, 2013; Dai *et al.*, 2010; Currier *et al.*, 2015; Adams *et al.*, 2016; Davina & Mallory, 2021; Graham *et al.*, 2019; Hansen & Marie, 2020; Julie & Dorthie, 2018). Evidence has also shown that combat exposure negatively influences the Psychosocial well-being of military personnel and manifests in post-traumatic stress disorders (PTSD), depression, and substance abuse and dependence (Al-Turkait & Ohaeri, 2008; Axelrod, 2005; Baggaley, 1999; Benda & House, 2003; Black *et al.*, 2004, Polusney *et al.*, 2011; Schnittker, 2018). A study by Price *et al.* (2004) and Smith (2008) revealed that military personnel who participated in the Vietnam War and World War II were more likely to drink alcohol and other drug substances excessively. Chesney *et al.* (2013) established those military personnel involved in combat in Global War on Terrorism (GWOT) had higher chances of using illegal substances and abusing alcohol.

Studies have consistently shown that combat exposure is associated with higher rates of PTSD, depression, and anxiety (Fulton *et al.*, 2015; Rutter, 1987; Nguyen *et al.*, 2023; Johnson *et al.*, 2022; Lee & Clark, 2023). Furthermore, the intensity and frequency of combat exposure can exacerbate these mental health issues (Bonanno *et al.*, 2012; Riviere *et al.*, 2018). Research on the linkage between combat exposure and psychological well-being is paramount for developing effective interventions and support systems for affected individuals (Mitchell *et al.*, 2020; Thompson *et al.*, 2016). Combat exposure significantly affects the psychological well-being of military personnel, leading to various mental health disorders such as PTSD, depression, and anxiety. Fulton *et al.* (2015) found that combat exposure was a strong predictor of PTSD, with rates significantly higher among those who experienced intense combat situations. This emphasizes the need for targeted mental health interventions for this population. Combat exposure is also linked to increased rates of depression and anxiety (Engel, 1977). Jones *et al.* (2017) reported that soldiers exposed to high-intensity combat were twice as likely to develop severe depressive symptoms compared to those with lower exposure. Mitchell *et al.* (2020) found that combat exposure is associated with heightened anxiety levels among military personnel. These findings highlight the broader spectrum of psychological disorders resulting from combat exposure.

The research focused on theoretical underpinnings grounded on the PTSD theory and stress response theory. Stress response theory states that combat exposure acts as a significant stressor that can overwhelm an individual's coping mechanisms, leading to psychological disorders (Lazarus & Folkman, 1984). On the other hand, the PTSD theory is a psychological framework that pertains to the development of post-traumatic stress disorder, a common mental health issue among military personnel exposed to traumatic events (Vasterling *et al.*, 2010). It posits that exposure to extreme stress or traumatic experiences can lead to the development of PTSD, a condition characterized by intrusive thoughts, emotional numbing, hyperarousal, and avoidance behaviors (American Psychiatric Association, 2013).

Certain factors confound the linkage between combat exposure and Psychosocial well-being. These include age at trauma (Bøg *et al.*, 2018), gender (Brewin *et al.*, 2000), social support and leadership (Mulligan *et al.*, 2012), personality characteristics (Harms *et al.*, 2013), and deployment length (Schyns & Schilling, 2013). Employment and homelessness were also among the main social wellness outcomes examined (Borg *et al.*, 2018; Gordon *et al.*, 2002; Gray *et al.*, 1999; Gray *et al.*, 1996). There is little formal research into how combat exposure has influenced the psychosocial well-being of military personnel in the KDF (Bearak, 2019).

Statement Problem

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Purpose

This review aims to synthesize empirical research conducted over the past decade to understand the relationship between combat exposure and psychological well-being. This study sought to identify common themes analyzed based on studies conducted between the years 2013 and 2023 highlighting key outcomes while discussing their implications both theoretically and in practice.

THEORETICAL REVIEW

Understanding the relationship between combat exposure and psychosocial well-being in the context of military personnel can be based on two central theories namely, stress response theory and resilience theory. These theories provide the foundation for developing a conceptual framework that examines the relationship between combat exposure and psychosocial well-being.

Stress Response Theory

Stress response theory was introduced by Lazarus *et al.* (1984), and it posits that combat exposure is a significant stressor. This stressor can overwhelm an individual's coping mechanisms and lead to psychological disorders. The theory emphasizes the individual's appraisal of the situation, availability of coping resources and interaction with the stressor. The appraisal of stressors applies

to military personnel in their perceiving situations that significantly influence their combat psychological outcomes (Mitchell *et al.*, 2020).

Stress reduction strategies like mindfulness-based stress reduction and cognitive-behavioral therapy are critical in addressing combat-related stress (Riviere *et al.*, 2018). Effective coping mechanisms, such as mitigating stress-induced disorders, problem-solving and mindfulness influence individuals' psychological well-being (Hoge *et al.*, 2022). Recurrent combat exposure intensifies psychological stress, increasing the likelihood of PTSD, depression and anxiety (Nguyen *et al.*, 2023). This theory has been widely applied in military psychology research (Mitchell *et al.*, 2020; Riviere *et al.*, 2018). Critics argue that it overemphasizes individual coping mechanisms without adequately addressing external support factors.

Resilience Theory

This theory was developed by Rutter (1987). Resilience theory highlights the ability of individuals to adapt and recover from adverse conditions such as combat exposure. It posits that resilience is a dynamic process influenced by internal and external factors, such as personality traits, coping mechanisms, and social support networks (Rutter, 1987). Resilience focuses on people's adaptive capacity involving the ability to navigate stress and emerge stronger. Such capacity is shaped by personal traits such as emotional regulation, self-efficacy, and optimism (Southwick *et al.*, 2022).

Research has emphasized the role of resilience training in reducing the risk of PTSD, depression, and anxiety among veterans (Williams *et al.*, 2021). It also highlights the factors related to protection whereby pre-deployment training, community networks, and social support, have been shown to reduce the psychological toll of combat exposure (Bonanno *et al.*, 2022). The dynamic aspect of the theory indicates that resilience fluctuates over time, which suggests the need for regular interventions and adaptability to the changing needs of military personnel (Mancini *et al.*, 2020). This theory has been validated in studies on military stress adaptation (Bonanno *et al.*, 2012; Southwick *et al.*, 2022). However, some scholars criticize its applicability, arguing that resilience is context-dependent and influenced by socioeconomic factors.

MATERIAL AND METHODS

This study was based on a review of empirical studies published between 2013 and 2023. The articles' search was done systematically through various databases including Google Scholar, PsycINFO as well as PubMed. Some of the keywords focused on while searching included "psychological well-being," "combat exposure," "PTSD," "veteran mental health" and "military mental health." The entire research materials selection criteria focused on the relationship between combat exposure and psychological well-being, those that were published in peer-reviewed journals, provided empirical data and analysis, and those that employed quantitative, qualitative, or mixed-method approaches.

The study employed a systematic review approach, following PRISMA guidelines for literature selection. Studies were screened based on relevance, methodological rigor, and availability of empirical data. Only peer-reviewed journal articles published between 2013 and 2023 were included. Exclusion criteria comprised duplicate studies, abstracts-only papers, non-English publications, and studies lacking a clear focus on combat exposure and psychosocial wellbeing. In totality, 30 studies were identified initially, from which 10 were chosen for detailed analysis based

on their methodological rigor, relevance to the study, and contribution to understanding of topical issues.

FINDINGS

The findings were categorized into four themes namely, impact of combat intensity which examined how the frequency and severity of combat exposure correlate with mental health outcomes; coping mechanisms and resilience where researchers in this category investigated the role of resilience and coping strategies in mitigating psychological distress post-combat; Intervention and support systems based on this them, research analyzed the effectiveness of therapies such as CBT, mindfulness training, and group therapy in improving mental health outcomes; and Prevalence of psychological disorders from whose studies in this category investigated PTSD, depression, and anxiety prevalence among military personnel as indicated in Table 1 and Table 2.

Table 1: Table of Analyzed Articles

Study	Category/Theme of Findings
Brenner <i>et al.</i> (2019)	Impact of combat intensity concluded that frequent exposure to combat situations correlates with higher incidences of PTSD.
Fulton <i>et al.</i> (2015)	Prevalence of psychological disorders found that combat exposure is a strong predictor of long-term mental health issues.
Nguyen <i>et al.</i> (2023)	Intervention and support systems demonstrated the effectiveness of mindfulness-based stress reduction programs in reducing PTSD and anxiety among veterans.
Jones <i>et al.</i> (2017)	Impact of combat intensity reported that soldiers exposed to high-intensity combat were twice as likely to develop severe depressive symptoms compared to those with lower exposure.
Mitchell <i>et al.</i> (2020)	The prevalence of psychological disorders demonstrated that combat exposure is linked to increased anxiety and depression among military personnel.
Bonanno <i>et al.</i> (2012)	Coping mechanisms and resilience emphasized that resilience training before deployment can mitigate the impact of combat stress.
Johnson <i>et al.</i> (2022)	The impact of combat intensity reported a correlation between the frequency of combat exposure and the severity of anxiety and depressive symptoms.
Riviere <i>et al.</i> (2018)	Intervention and support systems showed that cognitive-behavioral therapy significantly improves psychological outcomes in veterans.

Lee & Clark (2023)	Coping mechanisms and resilience identified that veterans with access to strong social support networks exhibited better mental health outcomes.
Smith <i>et al.</i> (2015)	Prevalence of psychological disorders found that 30% of veterans with high levels of combat exposure met the criteria for PTSD.
Thompson <i>et al.</i> (2016)	Coping mechanisms and resilience highlighted the importance of social support in reducing combat-related psychological distress.
Brown <i>et al.</i> (2019)	Intervention and support systems found that veterans who participated in structured group therapy showed a 40% reduction in PTSD symptoms.
Smith <i>et al.</i> (2021)	Prevalence of psychological disorders found a significant increase in PTSD rates among veterans exposed to high-intensity combat in the last five years.
Williams & West (2018)	Coping mechanisms and resilience identified that veterans with higher resilience scores demonstrated significantly lower levels of PTSD and depression.

The studies selected as indicated in Table 1 were grouped into four major categorical themes about their focus and findings.

Table 2: Thematic Groupings

Themes	Focus
Coping Mechanisms and Resilience	Research in this category examined how individual differences in coping mechanisms and resilience affected psychological well-being post-combat.
Impact of Combat Intensity	This theme explored how the intensity and frequency of combat exposure influenced psychological outcomes.
Prevalence of Psychological Disorders	Studies in this category investigated the prevalence of psychological disorders such as PTSD, depression, and anxiety among veterans exposed to combat.
Intervention and Support Systems	Studies here focused on the effectiveness of various interventions and support systems in mitigating the psychological impact of combat exposure.

The studies reviewed have jointly highlighted combat exposure as a significant risk factor for a range of psychological disorders. The severity of psychological outcomes was influenced by

individual resilience, intensity of combat, and the availability of effective support systems. Notably, the studies proposed some interventions for reducing the adverse psychological effects of combat exposure such as group therapy, cognitive-behavioral therapy, and resilience training.

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DISCUSSION OF THE STUDY

The findings are aligned with stress response theory, which suggests that repeated combat exposure overwhelms coping capacities, leading to psychological distress (Lazarus *et al.*, 1984). Similarly, resilience theory supports the importance of pre-deployment resilience training in reducing PTSD rates (Bonanno *et al.*, 2012). Contradictions arise in studies that suggest not all combat-exposed personnel develop PTSD, implying that factors such as social support and leadership influence psychological outcomes (Lee *et al.*, 2023). The findings highlighted the critical impact of combat exposure on psychological well-being, with a substantial proportion of affected individuals experiencing PTSD, depression, and anxiety. The role of resilience as a moderating factor is particularly noteworthy. Veterans with higher resilience levels tend to exhibit better psychological outcomes, indicating that resilience-building interventions could be crucial in mitigating the adverse effects of combat exposure. This supports the resilience theory, which emphasizes the capacity to adapt and recover from stress. The variations in psychological outcomes based on combat intensity suggest that more severe and frequent exposure leads to greater mental health challenges.

This aligns with the Stress Response Theory, which posits that more intense stressors are more likely to overwhelm coping mechanisms. This theory was introduced by Lazarus *et al.* (1984) and has been widely applied in military psychology research (Mitchell *et al.*, 2020; Riviere *et al.*, 2018). Critics argue that it overemphasizes individual coping mechanisms without adequately addressing external support factors. This theory, developed by Rutter (1987), has been validated in studies on military stress adaptation (Bonanno *et al.*, 2012; Southwick *et al.*, 2022). However, some scholars criticize its applicability, arguing that resilience is context-dependent and influenced by socioeconomic factors.

The severity and frequency of combat exposure strongly correlate with the risk of developing psychological disorders. Studies revealed that high-intensity combat increases the likelihood of PTSD, depression, and anxiety (Brenner *et al.*, 2019; Johnson *et al.*, 2022). This is consistent with Stress Response Theory, which posits that severe stressors overwhelm coping capacities, resulting in mental health challenges. This theory was introduced by Lazarus and Folkman (1984) and has been widely applied in military psychology research (Mitchell *et al.*, 2020; Riviere *et al.*, 2018). Critics argue that it overemphasizes individual coping mechanisms without adequately addressing external support factors.

Findings further emphasized that individual resilience is pivotal in determining psychological outcomes post-combat. Veterans with strong coping mechanisms and access to social support

networks exhibit better mental health outcomes, supporting Resilience Theory (Bonanno *et al.*, 2012; Williams & West, 2018). For instance, veterans with high resilience scores reported significantly lower rates of PTSD and depression compared to their less resilient counterparts (Lee & Clark, 2023). This theory, developed by Rutter (1987), has been validated in studies on military stress adaptation (Bonanno *et al.*, 2012; Southwick *et al.*, 2022). However, some scholars criticize its applicability, arguing that resilience is context-dependent and influenced by socioeconomic factors.

Effective interventions, such as cognitive-behavioral therapy (CBT), resilience training, and mindfulness-based stress reduction, show promise in mitigating combat-related psychological issues. For example, Riviere *et al.* (2018) demonstrated the efficacy of CBT in improving veterans' mental health. Furthermore, structured group therapies reduced PTSD symptoms by up to 40% (Brown *et al.*, 2019).

The prevalence of disorders like PTSD, depression, and anxiety is significantly higher among combat-exposed veterans. For instance, Smith *et al.* (2021) found that 30% of veterans with intense combat exposure met the criteria for PTSD. Similarly, Johnson *et al.* (2022) documented high rates of anxiety and depression in combat veterans. Nguyen *et al.* (2023) emphasized the effectiveness of tailored mental health interventions, corroborating the study's emphasis on evidence-based therapies. Research by Hoge and Castro (2014) highlights the role of social support in alleviating combat-related psychological stress, echoing the importance of support systems emphasized in the study. Fulton *et al.* (2015) reported that combat exposure significantly predicts PTSD, aligning with the current study's findings.

IMPLICATIONS OF THE STUDY

The results have significant implications for both theory and practice. In practice, the findings highlight the need for comprehensive mental health support systems for military personnel. This includes post-deployment screening for psychological disorders, and pre-deployment resilience has been affirmed by the studies through their emphasis on the relevance of the stress response theory, and resilience theory in understanding the psychological impact of combat exposure.

CONCLUSION

This study concludes that combat exposure significantly affects the psychological well-being of military personnel, increasing the risk of PTSD, depression, and anxiety. However, resilience, support systems, and intervention programs are crucial in moderating these effects. Effective interventions/strategies and support systems can help mitigate the adverse effects and promote mental health among military personnel. Structured resilience-training programs as part of pre-deployment preparation and post-deployment reintegration to equip military personnel with effective coping mechanisms. Post-deployment screening by military officers regularly enables early detection and intervention for PTSD, anxiety, and depression.

RECOMMENDATIONS

Governments should enhance mental health policies supporting veterans, focusing on psychological rehabilitation and social reintegration. There is a need to implement structured post-deployment mental health screening and resilience training programs. Future studies should

explore the long-term psychological adaptation of combat veterans across different cultural contexts.

Social support systems should be strengthened to help reduce the stigma around seeking mental health care. Also, evidence-based therapies like mindfulness training and CBT should be implemented. Furthermore, the research suggests that future research be conducted to explore the mechanisms underlying these relationships and develop targeted interventions to support the psychological well-being of those exposed to combat (for instance, neurobiological factors, cultural influences, and long-term effects).

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