Psychosocial Dimensions of Stress in Combat and Support Forces: Integrating Heat Stress, Leadership, and Coping Mechanisms

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***Abstract*—This chapter examines the multifactorial determinants of stress and burnout among military and paramilitary personnel, situated within theoretical frameworks such as McGrath's stress model and the Job Demands–Resources theory. Drawing on contemporary empirical findings, we identify environmental stressors (e.g., extreme heat and humidity), operational pressures (e.g., counter-insurgency deployments, family separation), organizational factors (e.g., weak leadership, low social support), and individual vulnerabilities (e.g., maladaptive coping styles, neuroticism) as key drivers of psychological strain. Advanced intervention strategies—including neurofeedback training, heat-adaptation programs, and digital mental health solutions—demonstrate potential in bolstering cognitive performance, emotional regulation, and resilience. Additionally, robust coping mechanisms, particularly problem-focused and cognitive reappraisal strategies, emerge as critical mediators in reducing distress and enhancing mental well-being. We propose a comprehensive, multi-tiered approach to military mental health that integrates environmental supports, leadership development, digital tools, and resilience training. Future research should empirically evaluate such multifaceted interventions in diverse deployment contexts, emphasizing longitudinal outcomes and scalability to maintain force readiness.**

***Index Terms*—Military stress • Burnout • Environmental stressors • Coping strategies • Resilience training • Neurofeedback • Digital mental health • Organizational support • Operational readiness**

Army personnel frequently operate in high-stress environments, particularly in combat zones, which markedly increases their susceptibility to PTSD, anxiety, depression, and insomnia. Research indicates a strong association between the severity and duration of combat exposure and elevated rates of these disorders (Konyango et al., 2025). Traumatic stress experienced during deployment—such as witnessing death or being threatened—also significantly raises the risk for insomnia among active-duty soldiers, with exposure to both lifetime and deployment-related trauma contributing to poor sleep (Hall Brown et al., 2019).

McGrath (1990) framed stress as arising when environmental demands exceed an individual's capabilities and resources, especially when expected rewards do not justify the effort. This model aptly captures stress dynamics within the Indian Army, where soldiers frequently face intense operational demands—such as frequent deployments and leadership deficiencies—without sufficient support or recognition.his conceptualization resonates strongly within the Indian military, where personnel face persistent counter-insurgency roles alongside base-related stressors and resource shortages. Pflanz and Ogle (2006) noted that while soldiers can endure short-term operational mission stress, chronic pressures at the home base often exceed their tolerance, significantly impairing mental health (Pflanz, 2001; Pflanz & Ogle, 2006).

Recent studies further validate this model. Wankhade (2023) found that officers stationed in field postings reported significantly less social support ($p < .05$) and higher perceived stress than those in peace stations, highlighting how environmental demand-resource imbalances vary by deployment location. Research within Low Intensity Conflict (LIC) deployments revealed elevated scores on stress and trauma measures (GHQ, CRSD, IES, MFI), with moderate to severe impact in around 8.5% of troops, although overall life satisfaction remained robust—demonstrating resilience amid adversity (PMC, 2010). A United Service Institution of India survey in 2024 found over 50% of Army personnel under severe stress, with officers reporting higher cumulative stress

than JCOs and ORs; frequent familial separation was a major contributing factor (USI, 2024).

Additionally, Srinivas (2024) reported that stigma, lack of autonomy, and limited mental health services exacerbate stress in the armed forces and CAPF, especially in high-altitude and isolated postings, which suffer disproportionately from mental illness and suicides. Collectively, these findings affirm McGrath's stress model in modern Indian military life: elevated environmental and occupational demands combined with resource constraints and insufficient rewards lead to chronic stress. Thus, interventions focusing on enhanced organizational support, improved leadership, structured rest, and stigma reduction are essential to restore this balance and enhance both well-being and performance.

Recent studies confirm this imbalance. Sharma (2015) conducted exploratory and confirmatory factor analyses among 415 Indian soldiers, identifying eight key stressors—lack of control at work, role conflict, inadequate awareness of duties, workload pressure, and indifferent organizational attitudes—that mirror McGrath's demand–resource mismatch. Srivastava et al. (2023) additionally highlighted how sleep deprivation, manpower shortages, lack of leave, and low motivation contribute to premature retirements and stress-induced outcomes in Indian forces. Furthermore, Pradhan, Pathak, and Bansal (2020) surveyed 150 male personnel, finding higher occupational stress among officers—who reported frequent role ambiguity and minimal autonomy—which correlated negatively with psychological well-being and quality of life.

In light of the Job Demands–Resources framework (Demerouti et al., 2001), Balancing high job demands with enhanced job resources—such as organizational support, autonomy, leisure, and clear role definitions—is critical. For instance, Pandey et al. (2025) demonstrated that perceived organizational support and job crafting significantly predicted workplace happiness among 120 Indian Army officers, revealing practical pathways for mitigating stress.

Together, these empirical findings substantiate McGrath's (1990) model within a military context: where high demands and insufficient rewards or resources foster stress, and where interventions—such as increasing autonomy, organizational support, and recovery opportunities—are essential to restore equilibrium, protect well-being, and sustain operational effectiveness.

Active-duty military personnel often demonstrate poorer mental and physical health compared to veterans and reserve members (Boehmer et al., 2003). Leadership behaviors remain critical; Britt et al. (2004) emphasized that supportive leadership can buffer soldiers' stress—findings echoed in recent data showing that leadership-trained interventions significantly improve sleep and resilience among troops (Adler et al., 2021). Peacekeeping deployments under uncontrollable and hazardous conditions contribute to frustration and elevated PTSD risk (Litz et al., 1997), while military suicides often stem from a complex interaction of stressors rather than isolated events (Florkowski, 2001). Enhancing organizational support—by reducing occupational stressors—has been shown to improve psychological well-being and decrease depressive symptoms (Stetz et al., 2007).

Recent reports further highlight this trend: a 40% rise in active-duty diagnoses for anxiety and PTSD was observed between 2019 and 2023, with mental health disorders accounting for over half of hospital bed days (Defense Health Agency, 2024; Shane, 2025). Sleep Leadership Training (SLT) has emerged as an effective intervention; a 2024 study found that platoon leaders who completed SLT saw their subordinates significantly increase nightly sleep to ≥7 hours (Adler et al., 2021).

In turn, sleep disturbances act not only as symptoms of PTSD and depression but also as predictors of these conditions. Studies show that insomnia and sleep fragmentation commonly precede and exacerbate PTSD, depression, and anxiety among service members (Smith et al., 2023). Chronic sleep deprivation impairs cognitive performance, judgment, and decision-making—crucial skills for military operations—while also being linked to long-term health risks, such as cardiovascular disease (Thompson et al., 2018).

Strong unit cohesion and perceived social support serve as potent protective factors. Service members reporting higher levels of cohesion and peer support exhibit fewer symptoms of PTSD, depression, and suicidal ideation following deployment (Grover et al., 2024). A meta-analysis found that individuals with probable PTSD reported significantly lower perceived

social support, indicating its role in recovery (Grover et al., 2024).

The psychosocial health of army personnel reflects a complex interplay of risk factors—such as combat trauma and disrupted sleep—and protective constructs, including robust social support, high unit cohesion, and injected resilience training. Effective intervention strategies should therefore incorporate evidence-based sleep therapies, resilience-building programs, and efforts to strengthen social bonds and unit cohesion to safeguard both mental health and operational readiness.

Army personnel are routinely deployed to high-threat environments—particularly combat zones—where they encounter trauma such as active engagement with the enemy, witnessing casualties, or enduring ongoing danger. Konyango, Kimamo, and Oketch-Oboth (2025) conducted a systematic review demonstrating that both the intensity and duration of combat exposure are strongly associated with increased rates of PTSD, anxiety, and depression. Moreover, persistent exposure to trauma often leads to sleep disturbances—especially insomnia and sleep fragmentation—which further exacerbate psychological distress and undermine resilience (Caldwell et al., 2024; Hall Brown et al., 2019).

A large retrospective cohort study by Caldwell and colleagues (2024) found a 12% increase in insomnia risk and a 48% increase in sleep apnea risk among soldiers with combat exposure. These findings underscore the need for routine screening and targeted sleep interventions in military populations. Behavioral treatments tailored to service members, such as Brief Behavioral Treatment for Insomnia, have been shown to effectively reduce insomnia symptoms and improve recovery (Hall Brown et al., 2019).

Yet protective factors can buffer adversity. Grover et al. (2024) performed a meta-analysis revealing that personnel who perceive strong social support—from peers, unit leaders, or family—experience significantly lower depression and PTSD post-deployment. Complementing this, longitudinal research conducted during Swiss basic military training showed that high individual resilience—measured upon entry—predicted lower perceived stress, fewer mental distress symptoms, reduced dropout rates, and superior performance at follow-up (Sefidan et al., 2021).

Unit cohesion also plays a pivotal role. Prospective evaluations indicate that soldiers who report high pre-deployment cohesion exhibit lower incidence of post-deployment mental disorders and suicidal ideation (Dempsey et al., 2021). Additionally, team-level factors have been found to foster psychological resilience, thereby enhancing organizational commitment and overall well-being among troops (Frontiers study, 2024).

Military personnel's psychosocial health reflects a nuanced interplay between occupational demands and physiological resilience. Martins and Lopes (2013) found that lower-ranking officers, such as lieutenants, and those experiencing high job stress—characterized by high effort and low reward—engaged in more occupational physical activity ($\beta = .324$, CI [.167, .481] and $\beta = .224$, CI [.098, .351], respectively), yet simultaneously showed decreased participation in sports or exercise during leisure time ($\beta = –.198$, CI [–.384, –.011]). Psychological distress was also associated with reduced leisure-time physical activity ($\beta = –.184$, CI [–.321, –.046]). In the context of military medical personnel deployed to Afghanistan, Adler et al. (2017) reported positive correlations between professional stressors and burnout, with significant negative associations between burnout and dimensions such as self-care, team care, general leadership, and health-promoting leadership; importantly, self-care and team care remained significant predictors of reduced burnout even after controlling for rank, PTSD symptoms, and professional stressors. Complementing these behavioral findings, Mohammad (2012) demonstrated that higher plasma levels of dehydroepiandrosterone sulfate (DHEA-S), and a higher DHEA-S to cortisol ratio, were significantly negatively related to burnout symptoms, suggesting that this neuroendocrine marker may serve as an objective biomarker of resilience under stress. Collectively, these studies illustrate how rank-related stress can influence physical activity patterns, how psychosocial support mechanisms mitigate burnout, and how biological factors underpin psychological resilience within military contexts.

Maslach and Jackson's (1981) seminal model characterizes burnout as comprising three interrelated dimensions: emotional exhaustion (EE), depersonalization (DP), and reduced personal accomplishment (PA). Early descriptions—such as "Old Sergeant Syndrome" among World War II

soldiers mirror this tripartite structure (Sobel, 1947). More recent evidence from the Portuguese Army suggests that 2.3% of service members experienced clinically significant burnout across all dimensions, whereas 25.2% demonstrated engagement (low EE, DP, and PA); notably, high EE, DP, and PA were present in 35.7%, 13.7%, and 45.5% of participants, respectively. Logistic regression revealed that being enlisted, unmarried, or feeling undervalued by superiors significantly increased burnout risk, consistent with the Job Demands–Resources framework (Matias & Rosa, 2025). Secure Base Leadership (SBL)—a leadership style grounded in attachment theory—has been empirically shown to moderate the relationship between emotional demands and burnout among military cadets; in a multilevel study of 398 Spanish officer cadets, Navas-Jiménez et al. (2025) found that higher perceptions of SBL attenuated exhaustion arising from elevated emotional demands. Additionally, Elfenbein (2023) distinguishes between emotional demands—the volume of emotional labor—and emotional dissonance, whereby mismatches between felt and expressed emotions generate psychological strain. Together, these findings underscore a comprehensive model in which structural demands and individual stressors elevate burnout risk, while protective factors—such as secure leadership, supportive units, and emotional regulation—buffer negative outcomes and promote resilience.

The factor analysis of the Arabic Military Burnout Inventory (A-MBI-MP) confirmed the presence of the three core dimensions—emotional exhaustion, depersonalization, and reduced personal accomplishment—as originally identified in the Maslach Burnout Inventory, underscoring its cultural and psychometric validity within Tunisian military personnel (Boussayala et al., 2025) . In a parallel vein, Harel, Reizer, Ben-Shalom, Kanat-Maymon, and Svetlitzky (2025) employed a time-lagged moderated-mediation model in an Israeli combat unit sample. They found that strong organizational identification at the onset of training indirectly reduced turnover intentions via lower emotional exhaustion—and this effect was significantly amplified for individuals with high family support during the initial moderation phase.

Adding to our understanding of operational demands and performance, Andersen et al. (2024) emphasize that personnel in high-pressure roles—such as combat or medical response—must sustain optimal cognitive (e.g., situational awareness, lethal force decision-making), physiological (e.g., heart-rate recoveries), and emotional functioning. Kirkham et al.'s (2025) systematic review of emotion regulation among active military personnel reinforces this perspective, highlighting the critical role of coping strategies in preserving decision-making and reducing adverse outcomes like attrition or injury.

Collectively, these studies delineate a multilevel framework: (1) burnout is reliably measured across cultural contexts; (2) organizational identity and external support systems serve as vital buffers against emotional exhaustion and turnover; and (3) effective emotion and physiological regulation underpin military performance in high-stress environments.

Kravchenko (2025), in a cross-sectional quantitative study of 120 military psychologists, found that organizational stressors ($\beta = .37$, $p < .01$) and negative affect at work ($\beta = .29$, $p < .05$) were the strongest predictors of fatigue, while professional resilience did not significantly reduce fatigue ($\beta = –.12$, $p = .07$), suggesting that resilience alone may be insufficient without broader organizational change. Neither job search behaviors nor workload intensity significantly predicted fatigue, indicating that psychological stress—not sheer workload—is the primary driver of exhaustion. Complementing these findings, Skomorovsky et al. (2025) examined over 4,300 Canadian Armed Forces personnel and demonstrated that work–life and life–work conflicts predicted both burnout and psychological distress, but that organizational support—especially when extended to families—ameliorated these effects and improved well-being outcomes. Meanwhile, Marmuse et al. (2025) identified an "angry profile" characterized by high trait anger and rumination as a risk factor for elevated burnout and PTSD symptoms; this profile was also associated with reduced parasympathetic flexibility, highlighting a physiological vulnerability to stress. Together, these studies underscore a multi-level model in which organizational dynamics and emotional strain—rather than objective workload—drive fatigue and burnout, while supportive environments and emotional regulation capacities can buffer against adverse mental health outcomes.

Wang et al. (2025) investigated the mediating role of mental health literacy in the association between mental well-being and insomnia among 2,297 young soldiers. Their mediation analysis demonstrated that both mental health awareness and the ability to identify and manage mental illness partly mediated this relationship, accounting for approximately 17–18% and 2–3%, respectively. They further found that individuals with high alcohol consumption, sedentary habits, frequent late nights, low physical activity, existing illnesses, and poor mental-health literacy were at greater risk for insomnia (Wang et al., 2025) . Separately, Kulyk and Maidannyk (2025) conducted clinical and statistical analyses showing that extended combat exposure—even without TBI or PTSD—can lead to a distinct neurocognitive condition they termed "combat-related dementia." This syndrome manifests as deficits in attention, memory, executive functions, and self-monitoring, likely due to cumulative stress, sensory overload, disrupted sleep, and prolonged deployment exceeding 14 months, which triples the risk of dementia progression (Kulyk & Maidannyk, 2025) . Together, these studies underscore the need for multi-pronged interventions in military settings: enhancing mental health literacy to mitigate insomnia and monitoring long-term cognitive health in soldiers with extensive combat experience.

Oluwakemi, Legbeti, Shekwolo, and Fenan (2025) reported that resilience significantly enhances quality of life among military personnel at the Nigerian Defence Academy, with $\beta = -.341$ ($t = 2.952$, $p < .05$), indicating resilience accounts for 2.7% of the variance in quality-of-life scores. This supports earlier assertions that resilience is a critical buffer against the inherent stressors of military life (O'Connor et al., 2019; Vojvodić et al., 2019). Shi et al. (2024) found alarming levels of burnout among soldiers in high-altitude regions of China, with mean scores of 3.37 ± 0.73 overall and severe burnout in 43.2% of participants; age, education, service length, and income were significant predictors. Similarly, Jothipala, Semage, and Balasuriya (2024) identified both personal (e.g., younger age, psychiatric history, smoking) and situational (e.g., dependents, transport issues) risk factors for burnout among Sri Lankan military personnel, while protective factors included child support, relevant training, leave availability, and problem-focused coping. Collectively, these studies underscore that resilience and contextual supports significantly contribute to quality of life and burnout reduction, while demographic and lifestyle factors continuously modulate vulnerability among military personnel.

Recent empirical investigations illuminate additional dimensions of occupational stress among uniformed personnel. Zhang et al. (2024) explored how extreme heat and humidity (WBGT > 35 °C) acutely impair advanced cognitive functions—such as situational awareness and working memory—in operational settings, while simple reaction times initially improved, highlighting environmental factors as critical stressors affecting decision-making. In a cross-sectional study of 353 non-gazetted CRPF jawans in Uttar Pradesh, Singh, Srivastava, Srivastava, Srivastava, and Srivastava (2025) found that approximately 72% reported moderate stress, with 1.7% experiencing high stress; key stressors included physical separation from family, hazardous duties, and marital strain, underscoring the impact of organizational and social support structures. Complementing these findings, Stegerhoek, Schaufeli, and van Hooff (2024) conducted a synthesis of meta-analyses across military and law enforcement populations, identifying maladaptive coping, neuroticism, and poor social support as the most prevalent modifiable risk factors driving diverse health outcomes—ranging from PTSD and insomnia to suicidal ideation. Collectively, these studies emphasize the role of environmental**,** organizational**,** and individual-level stressors, and point to critical intervention targets like climate mitigation, family- and peer-based support, and coping-skills training to enhance cognitive performance, reduce stress, and promote resilience.

Coping styles play a pivotal role in mediating military stress and supporting resilience. A longitudinal study by Zou et al. (2024) found that early reliance on negative coping styles (e.g., avoidance, denial) among Chinese military personnel significantly predicted lower psychological resilience and fewer positive coping behaviors three months later ($\gamma = -0.26$, $p < .001$); in contrast, higher baseline resilience forecasted greater use of positive coping styles over time and facilitated recovery from negative coping ($\gamma = 0.22$, $p < .01$). Complementing this, Cao et al. (2023) studied 1,110 Chinese personnel during the COVID-19 pandemic and determined that "mature" coping

styles (problem-solving, cognitive reappraisal) mediated the relationship between resilience and reduced psychological symptoms; this effect was particularly potent for individuals with promotion-focused regulatory orientation. Among U.S. military personnel, research reveals that maladaptive coping strategies—such as behavioral disengagement, venting, and self-blame—are strongly correlated with PTSD and depression, whereas active coping and emotional regulation tactics are associated with better mental health outcomes (Forscher et al., 2023). Collectively, these findings demonstrate that promoting positive, problem-focused coping and strengthening resilience through self-regulation and cognitive reframing constitute effective intervention points for enhancing mental well-being in high-stress military settings.

In conclusion, recent research highlights the critical importance of multifaceted coping and resilience strategies in maintaining military mental health and operational effectiveness. Emerging technologies such as neurofeedback, including EEG and fMRI-based approaches, have shown substantial promise in reducing PTSD symptoms and enhancing emotion regulation (systematic review: Noohi et al., 2024; Nicholson et al., 2020), suggesting innovative avenues for mental strength training. Environmental interventions, especially heat-adaptation programs, mitigate cognitive impairment under extreme conditions common in field settings (Zhang et al., 2024). Core coping styles—particularly problem-focused methods and mature reappraisal—have been consistently linked to reduced psychological distress and stronger resilience across military populations (Cao et al., 2023; Zou et al., 2024). Additionally, the rise of digital mental health interventions (DMHIs), such as mobile apps and online resource platforms, offers scalable, accessible support for resilience and well-being (Dunne et al., 2025). Taken together with established frameworks like McGrath's imbalance model and the Job Demands–Resources theory, these developments underscore the need for integrated, layered strategies: deploying environment-specific tools, cultivating adaptive coping, leveraging brain-based treatments, and delivering digital support. Future research must rigorously assess these combined interventions in longitudinal, real-world military contexts to bolster psychological health, unit readiness, and performance sustainability.

REFERENCES

[1] Adler, A. B., Adrian, A. L., Hemphill, M., Scaro, N. H., Sipos, M. L., & Thomas, J. L. (2017). Professional stress and burnout in U.S. military medical personnel deployed to Afghanistan. Military Medicine, 182(3–4), e1669–e1676.

[2] Adler, A. B., Yu, B., Cooper, C., DaLomba, E., Gregg, B., Barefield, M., & Umlauf, J. (2021). The effect of Sleep Leadership Training on U.S. Army human performance team members. Frontiers in Sleep, 3, Article 1351691. https://doi.org/10.3389/frsle.2024.1351691

[3] Andersen, L. L., et al. (2024). Emotion regulation and coping in high-pressure occupations: implications for cognitive, physiological, and affective performance [systematic review].

[4] Boehmer, T. K., Magennis, P. M., & Kruse, D. W. (2003). Physical and mental health status of active-duty personnel compared with veterans and civilians. Military Medicine, 168(8), 589–594.

[5] Boussayala, G., Tannoubi, A., Hagan, J. E., Amoadu, M., Srem-Sai, M., Bonsaksen, T., … Azaiez, F. (2025). Is it time to address burnout in the military? Initial psychometric validation of the Maslach Burnout Inventory among Tunisian military personnel (A-MBI-MP). Behavioral Sciences, 15(3), 385.

[6] Britt, T. W., Adler, A. B., & Bartone, P. T. (2004). Deriving benefits from stress: The role of leadership. Military Psychology, 16(1), 1–26.

[7] Caldwell, J. A., Knapik, J. J., Kusumpa, S., Roy, T. C., Taylor, K. M., & Lieberman, H. R. (2024). Insomnia and sleep apnea in the entire population of US Army soldiers: associations with deployment and combat exposure 2010–2019. Sleep Health, 1–10.

[8] Cao, F., Li, J., Xin, W., Yang, Z., & Wu, J. (2023). The impact of resilience on the mental health of military personnel during the COVID-19 pandemic: Coping styles and regulatory focus. Frontiers in Public Health, 11, Article 1240047. https://doi.org/10.3389/fpubh.2023.1240047

[9] Cao, F., Li, J., Xin, W., Yang, Z., & Wu, J. (2023). The impact of resilience on the mental health of military personnel during the COVID-19 pandemic: Coping styles and regulatory focus.

Frontiers in Public Health, 11, Article 1240047. https://doi.org/10.3389/fpubh.2023.1240047

[10] Defense Health Agency. (2024). Mental health diagnosis trends among active-duty service members, 2019–2023. Armed Forces Health Surveillance Division, Medical Surveillance Monthly Report.

[11] Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The Job Demands–Resources model of burnout. Journal of Applied Psychology, 86(3), 499–512.

[12] Dempsey, C. L., et al. (2021). Social closeness and unit cohesion as protective factors against suicide among U.S. service members. Suicide and Life-Threatening Behavior.

[13] Dunne, E., et al. (2025). Digital mental health interventions for military members and veterans: An environmental scan. JMIR Mhealth and Uhealth, 13(1), e64098. https://doi.org/10.2196/64098

[14] Elfenbein, H. A. (2023). Emotion in organizations: Theory and research. Annual Review of Psychology, 74(1), 489–517.

[15] Florkowski, G. (2001). Suicide in the military: Risk factors and prevention. Military Psychology, 13(4), 303–319.

[16] Forscher, E., et al. (2023). Relations between veterans' coping strategies and symptoms of PTSD and depression. Psychology Research and Behavior Management.

[17] Grover, L. E., Williamson, C., Burdett, H., Palmer, L., & Fear, N. T. (2024). Level of perceived social support, and associated factors, in combat-exposed military personnel: A systematic review and meta-analysis. Social Psychiatry and Psychiatric Epidemiology.

[18] Hall Brown, T. A., et al. (2019). Trauma type as a risk factor for insomnia in a military population. Journal of Affective Disorders, 245, 234–240.

[19] Harel, T., Reizer, A., Ben-Shalom, U., Kanat-Maymon, Y., & Svetlitzky, V. (2025). "I as part of we": A time-lagged study of turnover intentions from combat units as a function of organizational identification and emotional exhaustion in the military. International Journal of Stress Management.

[20] Jothipala, D., Semage, S., & Balasuriya, A. (2024). Correlates of burnout among military personnel of Sri Lanka Army: A nested case-control study. Ceylon Medical Journal, 68. https://doi.org/10.4038/cmj.v68i3.9836

[21] Kirkham, R., Liu, C., Wulundari, T., Aidman, E., Yucel, M., Wiley, J., & Albertella, L. (2025). Emotion regulation and coping in active military personnel: A systematic review. Stress and Health, 41(3), e70036.

[22] Konyango, B. A., Kimamo, C., & Oketch-Oboth, J. (2025). The relationship between combat exposure and psychosocial outcomes among military personnel: A systematic review. International Journal of Psychology & Counselling Education, 8(1), 45–60.

[23] Kravchenko, K. (2025). Experience of military psychologists working with service members affected by combat-related psychological trauma. European Journal of Trauma & Dissociation.

[24] Kulyk, O., & Maidannyk, O. (2025). Combat dementia in military personnel: A novel neurocognitive profile of relentless war. [Preprint].

[25] Litz, B. T., Orsillo, S. M., Friedman, M. J., Ehlich, P., & Batres, A. (1997). PTSD resulting from peacekeeping: Frustration and failure in morally ambiguous situations. Journal of Traumatic Stress, 10(1), 115–125.

[26] Marmuse, A., Billaud, J. B., Jacob, S., Vigier, C., Ramdani, C., & Trousselard, M. (2025). 'Hidden' anger as a risk factor for operational health: An exploratory approach among French military personnel. Military Psychology, 37(2), 148–158.

[27] Martins, L. C. X., & Lopes, C. S. (2013). Rank, job stress, psychological distress and physical activity among military personnel. BMC Public Health, 13(1), 716. https://doi.org/10.1186/1471-2458-13-716

[28] Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. Journal of Occupational Behaviour, 2(2), 99–113.

[29] Matias, M. A., & Rosa, P. J. (2025). Prevalence of burnout syndrome in the Portuguese Army. Military Psychology, 1–13.

[30] McGrath, J. E. (1990). Stress and the social environment. In H. Pickren (Ed.), Encyclopedia of Psychology, Vol 8 (pp. 79–84). American Psychological Association.

[31] McGrath, J. E. (1990). Stress and the social environment. In H. Pickren (Ed.), Encyclopedia

of Psychology, Vol. 8 (pp. 79–84). American Psychological Association.

[32] Mohammad, A. A. A. (2012). Resilience, burnout, and role stress among military personnel. Middle East Current Psychiatry, 19(2), 123–129.

[33] Navas-Jiménez, M. C., Laguia, A., Recio, P., García-Guiu, C., Edú-Valsania, S., Molero, F., & Moriano, J. A. (2025). Secure base leadership, emotional demands, and burnout in military officer cadets: A multilevel study. Acta Psychologica.

[34] Nicholson, A., Ros, T., Densmore, M., Frewen, P. A., Neufeld, R. W. J., Théberge, J., et al. (2020). A randomized, controlled trial of alpha-rhythm EEG neurofeedback in posttraumatic stress disorder: A preliminary investigation. Neuroimage, 28, 102490.

[35] Noohi, S., Miraghaie, A., Arabi, A., & Nooripour, R. (2024). Systematic review and meta-analysis of neurofeedback and its effect on reducing PTSD symptoms. Frontiers in Psychiatry. https://doi.org/10.3389/fpsyt.2024.1323485

[36] Oluwakemi, K. R., Legbeti, G. O., Shekwolo, D. M., & Fenan, N. V. (2025). Influence of resilience on quality of life among military personnel in Nigerian Defence Academy Kaduna. African Journal of Social and Behavioural Sciences, 15(5).

[37] Pandey, A., Patel, R., & Singh, S. (2025). Examining happiness at work in the Indian Army: A survey-based analysis. Journal of Informatics Education and Research, 5(1), 1505–1515.

[38] Pflanz, S. E. (2001). Psychiatric illness and the workplace: perspectives for occupational medicine in the military. Military Medicine, 166(6), 457–462.

[39] Pflanz, S. E., & Ogle, A. D. (2006). Job stress, depression, work performance, and perceptions of supervisors in military personnel. Military Medicine, 171(9), 861–865.

[40] PMC. (2010). Psychological effects of low intensity conflict (LIC) operations. Indian Journal of Medical Research, NCBI PMC2915592.

[41] Pradhan, J., Pathak, V. N., & Bansal, D. (2020). Occupational stress, psychological well-being and quality of life among Indian Army personnel. Defence Life Science Journal, 5(3), 211–216. https://doi.org/10.14429/dlsj.5.15427

[42] Sefidan, S., Pramstaller, M., La Marca, R., Wyss, T., Sadeghi-Bahmani, D., Annen, H., & Brand, S. (2021). Resilience as a protective factor in basic military training: A longitudinal study of the Swiss Armed Forces. International Journal of Environmental Research and Public Health, 18(11), Article 6077.

[43] Shane, L. III. (2025, January 3). 40 % rise in mental health diagnoses among troops, report finds. Military Times.

[44] Sharma, S. (2015). Occupational stress in the armed forces: An Indian Army perspective. IIMB Management Review, 27(3), 211–223.

[45] Shi, L., Ren, F., Xin, S., Sun, Q., Li, D. N., Li, K., & Wang, Y. (2024). Prevalence of burnout among military personnel in the plateau region of China: A cross-sectional survey. BMC Public Health, 24(1), 1897.

[46] Singh, G., Srivastava, M., Srivastava, M., Srivastava, P., & Srivastava, P. (2025). Exploring the interplay between occupational stress, social support, and work-life balance in CRPF Jawans. Indian Journal of Preventive & Social Medicine, 55(4), 408–414.

[47] Skomorovsky, A., Charanek, N., Campbell, A., Reeves, K., & Norris, D. (2025). Well-being among Canadian Armed Forces men and women: The roles of poor work-life balance and organizational support. Journal of Military, Veteran and Family Health, 11(2), 152–167.

[48] Smith, J. D., et al. (2023). The nexus between sleep disturbances and mental health outcomes in military staff. Brain Sciences, 11(10), 1310.

[49] Sobel, R. (1947). The “old sergeant” syndrome. Psychiatry, 10(3), 315–321.

[50] Srinivas, S. (2024). Mental health in the Indian Armed Forces and CAPF. Social & Political Research Foundation Discussion Paper.

[51] Srivastava, M., Singh, G., Kharwar, P. S., & Jaiswal, S. (2023). Occupational stress among armed forces and police personnel: A review. International Journal of Community Medicine and Public Health, 10(3), 1280–1284.

[52] Stegerhoek, A., Schaufeli, W. B., & van Hooff, M. L. (2024). Risk factors for adverse health outcomes in military and law enforcement personnel: An umbrella review. BMC Public Health, 24, Article 20553. https://doi.org/10.1186/s12889-024-20553-2

[53] Stetz, M. C., et al. (2007). Organizational support and soldier well-being: Reducing occupational stressors and depressive symptoms. Military Medicine, 172(8), 834–840.

[54] Thompson, P. Q., et al. (2018). Sleep in the United States military: Prevalence and health impact. Sleep Medicine Reviews, 40, 103–114.

[55] U.S. India Strategic Review Institute (USI). (2024). Rising stress in India's defence forces. Drishti IAS.

[56] Wang, M., Ni, H., Sun, P., Liang, X., Huang, M., Xu, S., & Ni, C. (2025). Association between mental health and insomnia in young soldiers: A mediation analysis of mental health literacy. BMC Public Health, 25(1), 1010.

[57] Wankhade, D. (2023). Stress and adaptability among Indian Army officers posted in different locations. Unpublished master's thesis, NSHM Knowledge Campus, Kolkata.

[58] Zhang, Y., Jia, M., Li, M., Wang, J., Hu, X., Xu, Z., & Chen, T. (2024). Operators' cognitive performance under extreme hot–humid exposure: A neuroergonomics study with ECG, fNIRS, and eye tracking. ArXiv. https://doi.org/10.48550/arXiv.2403.00020

[59] Zou, M., Liu, B., Ji, J., Ren, L., Wang, X., & Li, F. (2024). The relationship between negative coping styles, psychological resilience, and positive coping styles in military personnel: A cross-lagged analysis. Psychology Research and Behavior Management, 17, 13–21. https://doi.org/10.2147/PRBM.S447096