**Mental Health Literacy Interventions for Coping and Resilience Across Populations**

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# Abstract

This report critically reviews the contributions of mental health literacy and education to enhancing resilience and well-being among adolescents, healthcare workers, and soldiers. Four studies were reviewed to assess interventions for early detection of symptoms, reduction of burnout, coping, and insomnia. In Indonesia, interactive workshops greatly improved teenagers' identification of mental health concerns such as stress and irritability. Sudanese mental health workers reported excessive stress (mean=10.9) and burnout (49.4%), and 32.9% planned career transition owing to stigmatization by society. Portuguese adults applied religious coping most often, followed by emotional support attached to literacy among all ages. Chinese servicemen with sedentary lifestyles had 1.3x increased risk of insomnia, though awareness of mental health alleviated 17.41% of sleep problems. These results highlight the necessity for culturally sensitive programs and policy reformation. Future studies need to emphasize longitudinal designs and technology-based solutions in order to address scalability gaps and diversity limitations.

# Introduction

Mental health literacy is central to addressing increasing worldwide levels of anxiety, depression, and insomnia. Vulnerable populations—teens facing peer pressure, healthcare providers coping with vicarious trauma, and soldiers exposed to high-stress situations—need specialized interventions. School-based interventions in Indonesia, for example, lowered stigma by educating on symptom identification, while Sudanese professionals identified systemic underfunding as a burnout driver. Likewise, Chinese soldiers' insomnia was associated with low mental health literacy, highlighting the importance of literacy in sleep hygiene. This report integrates results from four studies to promote evidence-based policy and innovative technologies, including wearable sleep monitors, to close gaps in mental health care across populations.

# Literature Review

[1] Daulay and Safira (2024) carried out a study in Indonesia, North Sumatra, to assess an  
education program in mental health among vocational students. With pre- and post-testing of 70 participants, interactive workshops were seen to enhance teens' capacity for identifying symptoms such as stress and excessive use of gadgets (page 2), with significant rises in post-test knowledge scores (p<0.05). The Wilcoxon Signed Rank Test also asserted the effectiveness of the program, especially in reducing stigma on peer pressure (Table 1).

[2] Abdelhadi et al. (2025) mailed questionnaires to 164 Sudanese mental health professionals and reported high stress (mean=10.9) and personal burnout (49.4%) with the DASS-21 and Copenhagen Burnout Inventory. From their research, 32.9% of professionals had thought about leaving work because of the stigma of society (page 4), and lower levels of anxiety (p<0.005) were reported by older professionals (Figure 2).

[3] Carvalho and Vale-Dias (2021) contrasted coping strategies in 419 Portuguese participants and concluded that emotional support was cross-sectionally associated with mental health literacy (r=0.38, p<0.01). Religious coping was employed by adults twice as frequently as by adolescents (page 6, Table 1), emphasizing age differences in managing stress.

[4] Wang et al. (2025) examined insomnia among 2,297 Chinese soldiers and found that sedentary lifestyle raised the risk of insomnia by 1.3x (p<0.001) (page 5). Mental health knowledge mediated 17.41% of sleep problems, as indicated in their bootstrap mediation analysis (95% CI: 0.174–0.318) (page 6, Table 4).

# Scope for Future Work

* **Longitudinal Tracking:** Track adolescents after intervention to determine knowledge retention of mental health.
* **Cultural Adaptation:** Pilot literacy interventions in underrepresented areas (e.g., Sub-Saharan Africa) using local coping strategies.
* **Digital Tools:** Create AI-based apps for instant stress management for soldiers and professionals.
* **Policy Integration:** Impose mental health check-ups in high-risk environments, such as Sudan's understaffed hospitals.
* **Holistic Metrics:** Blend wearable sleep measures (e.g., Fitbit) with self-reports to provide sound insomnia analysis.

# Conclusion

Mental health literacy interventions greatly enhance symptom recognition in adolescents at an early stage, reduce burnout in professionals, and improve soldiers' sleep quality. Workplace stigma reported by the Sudanese study and religious coping among the Portuguese adults underscore the necessity for culturally attuned interventions. The insomnia among soldiers, fueled by inactive lifestyles, necessitates the inclusion of wearable technology into military health training. Future efforts should focus on scalable, technology-based solutions and systemic inequities tackled through policy change. These actions will build resilient communities able to withstand contemporary mental health issues.

# References

[1] Daulay, W., & Safira, A. (2024). The Effect of Mental Health Education on Teenagers’ Capacity for Early Detection of Mental Health. *Caring: Indonesian Journal of Nursing Science*.

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[3] Carvalho, M. M., & Vale-Dias, M. L. (2021). Is mental health literacy related to different types of coping? Comparing adolescents, young-adults and adults correlates. *INFAD Revista de Psicología*.

[4] Wang, M., et al. (2025). Association between mental health and insomnia in young soldiers: a mediation analysis of mental health literacy. *BMC Public Health*.

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