

## ORIGINAL RESEARCH

67. **Impact of War on Burnout among Medical Students at Al-Neelain University in Sudan, 2024**Enas Seyed,<sup>1</sup> Mohammed Yhya,<sup>1</sup> Ruaa El.Walid,<sup>1</sup> Assma Gamie,<sup>1</sup> Noha Sofyan.<sup>1</sup><sup>1</sup>Al Neelain University Medical School, Sudan

**Background:** Burnout, characterized by emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment, is relatively frequent among medical students due to the demanding nature of medical education. In conflict zones, such as Sudan, the challenges are exacerbated by war, which disrupts training and increases psychological stress. Despite its potential long-term consequences on individuals and healthcare systems, burnout among medical students in these settings remains underexplored.

**Aim:** This study aimed to assess the prevalence of burnout among medical students at Al-Neelain University in Sudan, with a focus on the impact of war on burnout levels. Additionally, it evaluated the students' coping mechanisms and resilience in overcoming the challenges posed by conflict and academic disruptions.

**Methods:** A cross-sectional study was conducted among 259 medical students at Al-Neelain University, selected using a stratified sampling technique. Data were collected through an online, close-ended questionnaire comprising three sections: sociodemographic and training-related questions, a burnout assessment using the Maslach Burnout Inventory-Student Survey (MBI-SS), and an evaluation of resilience using the Brief Resilient Coping Scale (BRCS). The data collected were analyzed using Microsoft Excel and the Statistical Package for the Social Sciences (SPSS).

**Results:** Of the total of 259 medical students at Al-Neelain University, the prevalence of burnout using the two-dimensional definition was 18.5%, while 8.1% met the criteria for three-dimensional burnout. High emotional exhaustion and cynicism were observed in 31.7% and 32.8% of students, respectively, whereas 30.1% had low academic efficacy. Burnout was significantly associated with poor academic performance, inadequate social support, and limited internet access ( $p < 0.001$ ). The Brief Resilient Coping Scale (BRCS) showed that only 19.3% of students had high resilience coping, while 45.9% had low resilience coping. Resilience showed a statistically significant moderate positive correlation with academic efficacy ( $r = 0.487$ ,  $p < 0.001$ ) and a weak negative correlation with cynicism ( $r = -0.226$ ,  $p < 0.001$ ). While burnout had a limited direct impact on clinical training for fifth-year students, conflict-related disruptions, such as reduced access to hospitals and inconsistent mentorship, posed significant challenges to their educational experiences.

**Conclusion:** Medical students at Al-Neelain University exhibited an alarming prevalence of burnout, compounded by academic and conflict-related challenges. It demonstrated the urgent need for interventions to reduce burnout, enhance resilience, and improve resource access, which are essential to support students' well-being and ensure training continuity, especially in conflict zones like Sudan.

**Table 1.** Prevalence of Burnout, sub-scales, levels among medical students at Al-Neelain University (n=259).

	Frequency (n)	Percent (%)
Emotional Exhaustion (High)	82	31.70%
Cynicism (High)	85	32.80%
Academic Efficacy (Low)	78	30.10%
Burnout status ( $\geq 1$ dimension)	224	86.50%
Burnout status (2 dimensions)	48	18.50%
Burnout status (3 dimensions)	21	8.10%

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ISSN 2076-6327

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