14. The Effect of Post Conflict Educational Disruption on Patient Safety Competence Among Senior Medical Students at the University of Khartoum: Cross-Sectional Study.

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BACKGROUND: Patient harm remains a significant global health challenge, especially in low- and middle-income countries, highlighting the importance of strengthening patient safety competence among future healthcare providers. Although undergraduate medical education is essential for developing these competencies, gaps in students' knowledge and confidence persist, particularly in applying patient safety principles in clinical settings. In Sudan, the armed conflict since April 2023 has disrupted both theoretical and clinical medical training, potentially compromising the development of essential patient safety competencies among senior medical students. This study aimed to assess the impact of educational disruption on patient safety competence. **METHODS:** A cross-sectional analytical study was conducted among 298 senior medical students at the University of Khartoum. Systematic stratified sampling (k=3) with proportional allocation for the final three academic years were used to reach the final sample, and Senior medical students who have been studying during the time when conflict-related educational disruptions occurred were included. data were collected through a validated self-administered online questionnaire measuring patient safety competence across both classroom and clinical settings using Health Professional Education in Patient Safety Survey, and educational disruption was measured through combined objective- subjective approach using multiple choice questions and adapted pre-tested 12 items scale assessing both theoretical and clinical disruption. Data were analyzed using Statistical Package for the Social Sciences (SPSS) version 26. Scores were categorized using modified Bloom's cutoff points as follows: low (<50%), moderate (50–75%), and high (>75%). Correlations and associations using non parametric tests and multiple linear regression were performed to identify the predictors of the overall patient safety competence. **RESULTS:** A total of 298 senior medical students participated. Most students (81.2%) reported experiencing post-conflict educational disruption, predominantly lasting 6–12 months (33.9%). The majority of students were classified as having moderate disruption (64.1%). Overall patient safety competence was also moderate (59.2%). Classroom competence scores were significantly higher than clinical competence scores (median 47 vs. 45.5). A strong positive correlation was found between classroom and clinical competence (ρ = 0.739, p < 0.001), although a significant gap existed (Z = -5.702, p < 0.001). Educational disruption showed a weak negative correlation with clinical competence (ρ = -0.134, p = 0.020). Multiple regression demonstrated a negative border-line predictive trend of educational disruption for overall competence (p = 0.057). prior patient safety education was the only significant positive predictor of overall competence (p < 0.001). **CONCLUSION:** Senior medical students in a post-conflict setting experience substantial educational disruption, particularly on clinical training. Despite this, overall patient safety competence remained moderate.However, a persistent gap between theoretical and clinical competence was identified, with weaker competence in clinical practice. Educational disruption showed a weak negative influence on patient safety competence, particularly in clinical domains, while prior patient safety education was the only significant positive predictor. These findings underscore the need to incorporate longitudinal, simulation-based patient safety training within the medical curriculum to bridge the theory–practice gap and mitigate the effect of conflict-related disruption in medical education.

Key Words: Patient safety, medical education, armed conflict, medical students, Sudan.

Figure (1). Distribution of Overall Patient Safety Competence level among Senior Medical Students at the University of Khartoum (n=298)