

ORIGINAL RESEARCH

79. **The Impact Of Nightshifts On Doctors' Cognitive Performance At Kosti Teaching Hospital During War, Sudan, 2024**

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Background: Nightshifts are an integral part of healthcare delivery but are strongly associated with disrupted circadian rhythms, sleep deprivation, and cognitive decline. These challenges may be exacerbated in conflict-affected regions such as Sudan, where physicians face increased workload and stress. This study aimed to evaluate the impact of nightshifts on doctors' cognitive performance at Kosti Teaching Hospital during the ongoing war in Sudan.

Methods: A hospital-based cross-sectional analytic study was conducted at Kosti Teaching Hospital between September 2024 and January 2025. A total of 54 doctors from medicine, pediatrics, surgery, and obstetrics and gynecology departments were enrolled. Data were collected using a self-administered structured questionnaire incorporating the Fatigue Assessment Scale (FAS), Perceived Stress Scale (PSS), and a cognitive performance assessment tool. Analysis was performed using SPSS v22.

Results: Most participants were males (63%), single (91%), and house officers (63%), with the predominant age group being 25–29 years (69%). The majority reported no regular sleep schedule (70%) and attended fewer than two nightshifts per week (66%), sleeping less than 6 hours during shifts (96%).

Overall, 59.3% of doctors demonstrated cognitive impairment. Moderate stress was reported by 77.8% and mild to moderate fatigue by 37%. No significant association was found between cognitive performance and number of nightshifts per week ($p=0.106$), stress level ($p=0.381$), or fatigue level ($p=0.284$). Most doctors coped with nightshifts by consuming caffeine (72.2%) and taking short breaks (57.4%), while structured sleep schedules were the most common long-term coping strategy (57.4%).

Conclusion: The majority of doctors reported cognitive impairment, moderate stress, and fatigue during nightshifts, though no significant associations were observed between cognitive outcomes and workload, stress, or fatigue levels. Coping strategies such as structured sleep schedules and caffeine consumption were widely adopted. These findings highlight the urgent need for interventions, including optimized shift scheduling and supportive workplace policies, to safeguard physician well-being and patient safety in resource-limited, conflict-affected settings.

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ISSN 2076-6327

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