

Occupational Stress, Quality of Life, and Musculoskeletal Disorders in Nurses at the Armed Forces Hospital in the South, Saudi Arabia, 2025: A Cross-Sectional Study

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Sample Background: Nursing is a physically and emotionally demanding profession that often exposes healthcare workers to occupational stress, impacting their quality of life and increasing their risk of developing musculoskeletal disorders (MSDs). The aim of this study was to assess the prevalence of MSDs, occupational stress and its effect on the quality of life (QoL) in Nurses in AFHSR.

Method: This study is a cross-sectional study conducted in Armed Forces Hospital in southern, Saudi Arabia. The Data were collected using convenience sampling technique by sending electronic questionnaire link through WhatsApp to Nurses in Armed Forces Hospital in southern. Inclusion criteria are nurses currently employed in the Armed Forces Hospital in the South, Saudi Arabia. Nurses with less than 6 months of experience were excluded. The sample size is 300. self-administered questionnaires were used to collect data to prevalence of Occupational stress, MSDs and quality of life also to identify the association between prevalence of Occupational stresses, MSDs and quality of life among nurses, which are The Nordic Musculoskeletal Questionnaire (NMQ), Short-Form Health Survey (SF-12) and Depression Anxiety Stress Scale (DASS).

Results: A total of 300 nurses participated in the study. The majority were female (88.96%) and married (53.85%), with a mean age of 29.4 ± 5.7 years. The prevalence of musculoskeletal disorders (MSDs) in the past seven days was high, with neck pain (34.5%), shoulder pain (35.6%), and upper back pain (32.8%) being the most frequently reported sites, followed by wrist/hand (19.7%) and elbow (13.7%) pain. Female nurses reported significantly higher MSD symptoms compared to males ($p < 0.05$). Smoking was not significantly associated with MSDs, as the majority of participants were non-smokers (89.6%). Quality of life scores were found to be lower among those reporting MSDs and higher stress levels, indicating a negative impact of occupational stress and musculoskeletal problems on both physical and mental health domains.

Conclusion: The findings from this study show that the prevalence of musculoskeletal disorders among nurses in Armed Forces Hospital in southern Saudi Arabia considerably high. And there is significant association between Occupational stress, MSDs and low quality of life among Armed Forces Hospital in southern Saudi Arabia.

Index Terms—Occupational Stress, Musculoskeletal Disorder, Work Related Musculoskeletal Disorders, Pain, Nurses, Quality of Life