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Work-related musculoskeletal disorders among nuclear medicine professionals in India

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ABSTRACT

Background: Musculoskeletal disorders (MSDs) are a severe occupational health issue among medical radiation practitioners. It is mostly linked to the working posture and tools employed, and it can also be related to ergonomic.

Aim: To identify the musculoskeletal disorders among nuclear medicine professionals in India.

Methods: A cross-sectional study design was used and the standardized Nordic Musculoskeletal Questionnaire, basic demographics questions, and questions to obtain information regarding instruments used in the working area was sent through emails in the form of a google link to nuclear medicine professionals throughout India.

Results: A total of 91 participants were included in the study depending on the basis of inclusion and exclusion criteria. The results from the questionnaire and the information of the instruments used illustrated that, there is a significant association between the following; height of the individual and neck pain ($p < 0.003$), body mass index and elbows pain $p < 0.017$, age and low back pain $p < 0.021$, experience in the current work and upper back pain $p < 0.001$, weight of the individual and knee pain $p < 0.048$, using of mobile lead screens and shoulders $p < 0.040$ and using of lead screens and QC phantoms for gamma camera / PET and wrists/hands pain $p < 0.027$, $p < 0.043$ respectively.

Conclusion: Through this study, we can conclude that work-related musculoskeletal disorders might be resulting from individual demographic variables like age, height, weight, BMI and years of experience in the current work and of using instruments in their work area. Nuclear medicine professionals are persons to be looked more on their work nature and ergonomics to prevent further musculoskeletal discomfort in their years of working.

Keywords: Nuclear medicine professionals, musculoskeletal disorders, work.