Descriptive Epidemiology of Unintentional Musculoskeletal Injuries among Naval Special Warfare Combatant-Craft Crewmen

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Background/Purpose: Naval Special Warfare Combatant-Craft Crewmen (SWCC) Operators specialize in the operation of small craft for rapid mobility in shallow water, while also executing land based tactical strategies when not operating on the water. The aim of this study was to describe unintentional musculoskeletal injuries among a sample of SWCC Operators.

Methods: Self-reported injury data were obtained from 104 SWCC Operators (age = 27.5 ± 5.4 years (mean ± SD)). Musculoskeletal injuries were described and classified according to their frequency, anatomic location, anatomic sub-location, cause, type, activity during injury, and potential for prevention.

Results: The frequency of self-reported musculoskeletal injuries was 31.6 injuries per 100 subjects per year. Common anatomic locations were the lower extremity (20/37, 54.1% of injuries) and upper extremity (11/37, 29.7%). Common anatomic sub-locations were the knee (12/37, 32.4%) and shoulder (8/37, 21.6%). Lifting was the most frequent cause of injuries (8/37, 21.6%), followed by running (6/37, 16.2%). Most injuries occurred during physical training (14/37, 37.8%), followed by recreational activity/ sports (8/37, 21.6%). Common injury types were sprain (7/37, 18.9%) and pain/ spasm/ ache (5/37, 13.5%). Twenty two musculoskeletal injuries (22/37, 59.5% of injuries) were potentially preventable by an injury prevention training program. The frequency of preventable musculoskeletal injuries was 18.8 injuries per 100 subjects per year.

Conclusion: Musculoskeletal injuries cause significant morbidity among SWCC Operators. Many of these injuries are amenable to prevention. There is a need for a customized injury prevention program in this population of SWCC Operators.

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