Epidemiological analysis of injuries occurring in Marine Corps Forces Special Operations Personnel


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Special Operation Forces have been shown to sustain greater rates of musculoskeletal injuries than conventional forces. These injuries result in loss in deployable operators, which negatively impacts force readiness. In addition to Operators (OPs), Marine Corps Forces Special Operations Command (MARSOC) also utilizes Combat Support Personnel (CSP) to support OP missions. These CSP may also be at risk for sustaining similar injuries and mechanisms as OPs.

PURPOSE: Describe injury epidemiology in MARSOC personnel and compare injury patterns between OPs and CSP. METHODS: A total of 141 MARSOC personnel (85 OPs, 56 CSP) completed an injury history questionnaire and described musculoskeletal injuries that occurred in the previous 12 months. Injury proportions were calculated for OPs and CSP. Proportions of injured subjects were compared between OPs and CSP using Fisher’s exact tests. RESULTS: A total of 43 injuries were reported within the previous 12 months, 25 of which were classified as preventable (15 in OPs, 10 in CSP). There were no statistically significant differences in the proportion of injured subjects between OPs and CSP. Preventable injuries were sustained by 14% of OPs and 16% of CSP. Both OPs and CSP sustained the majority of preventable injuries while performing lifting and running activities (27% and 40% for OPs and 40% and 50% for CSP, respectively). Also, the knee and lumbopelvic region were the most commonly reported location of preventable injuries for OPs (20% each) and CSP (30% each). The top three most common injury types were muscle strain, tendinopathy, and pain/spasm. CONCLUSION: Approximately 15% of MARSOC personnel experienced preventable injuries within 12 months prior to the questionnaire. Therefore, the force would significantly benefit from performance and injury prevention programs to mitigate preventable injuries and optimize force readiness. Because the majority of injuries were sustained during physical training there is a need to monitor training readiness to avoid overtraining and fatigue. Additionally, OPs and CSP seem to sustain similar injury patterns with similar mechanisms, suggesting CSP should also be included in injury prevention initiatives to optimize force readiness.

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