

Abstract
Posters

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An Effect of Pre-injury Factors on the Relationship between Severity of Acute Symptoms and Sleep Quality Among Recovered and Non-Recovered Adolescents following Concussion

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Objective: Sleep disturbance following concussion has been linked to more severe symptoms and longer recovery times. However, it is unclear whether this association may be affected by pre-injury and mood factors. This study examines whether acute symptom severity was associated with poorer sleep quality among recovered vs not-yet-recovered adolescents at 3-months following injury after adjusting for age, sex and anxiety. Method: Adolescents aged 12–18 (N = 449) presenting \leq 7 days to ConTex specialty concussion clinics were studied. Of these, 60 reported not being recovered at 3-month follow-up (Mage = 15.23, Nmales = 27, Nfemales = 33). Participants completed the Sport Concussion Assessment Tool-3rd Edition (SCAT-3) Symptom Checklist, Pittsburgh Sleep Quality Index (PSQI), and General Anxiety Disorder-7 (GAD-7). Hierarchical linear regressions assessed if initial symptoms as measured by the SCAT-3 total symptom score, predicted sleep quality at 3-month follow-up, controlling for initial data of age, sex, PSQI, and GAD-7. Results: Initial total symptom scores did not predict higher PSQI scores at 3-months for either recovered or non-recovered subjects [F (1, 362, p = .550 and F (1,48), p = .307, respectively]. For recovered subjects, initial sleep ratings (p < .001) predicted 3-month sleep quality, while there was a trend for age (p = .054). For non-recovered subjects, only sex was associated with lower sleep quality at 3-months (p = .034). Conclusions: Sleep disturbance was not associated with severity of concussion symptoms when accounting for age, sex, and initial sleep quality. These findings do suggest, however, that females were more likely to report lower sleep quality when experiencing longer recovery.