

ABSTRACT SUBMISSION FORM

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SEX + GENDER

Exploring the role of sex and gender on health research



CHR D 2020: Abstract Submission Form

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Title

Longitudinal changes in mental health outcomes in Manitoba youth following a sport-related concussion injury.

Background

Mental disorders are among the leading causes of disability. Concussions can increase risk of developing a mental disorder.

Objective

Our objective was to examine symptoms of depression, anxiety, stress, and recovery time in Manitoba youth as they recover from an isolated sports-related concussion injury (SRC) or an isolated sports-related fracture injury (SRF).

Methods

Athletes aged 14-18 were recruited from a concussion or fracture clinic. Depression, anxiety, and stress symptoms were assessed at each visit using the DASS-21 questionnaire. Time to recovery was recorded. Summary results were reported as means and proportions. Group comparisons were presented as medians (IQR) and compared using a Wilcoxon rank-sum test.

Results

93 SRC patients (57.1% male; mean age 15.1 years) and 122 SRF patients were enrolled (70.1% male; 14.8 years) but 24 patients were excluded for only attending initial appointments, sustaining a second injury, withdrawing, or having been erroneously enrolled. Scores differed for SRC patients who experienced delayed recovery (DR; >28 days). At initial assessment, DR patients demonstrated higher median scores on the DASS-21 [depression (4.0; IQR:2.0-8.0; $p=0.0059$), anxiety (8.0; IQR:4.0-11.5; $p=0.0013$), and stress (10.0; IQR:3.0-15.5; $p=0.0013$)] than SRF patients [depression (0; IQR:0-4.0), anxiety (2.0; IQR:0-6.0); stress (4.0; IQR:0-9.0)]. DR patients had higher median anxiety ($p=0.0018$) and stress scores ($p=0.0013$) compared to normal-recovery-SRC patients [(anxiety:2.0; IQR:0-6.0); (stress:5.0; IQR:0-10.0)]. At recovery, DR patients had higher median anxiety (2.0; IQR:0-4.0; $p=0.0003$) and stress

scores (0; IQR:0-4.0; p=0.0010) than normal-recovery-SRC patients (anxiety: 0; IQR:0-0; stress:0; IQR:0-4). Median days to clinical recovery was longer for DR patients (42.0; IQR:33.0-57.0) than both normal-recovery-SRC (18.0; IQR:11.0-23.0; p=0.0001) and SRF patients (27.0; IQR:21.8-41.3; p=0.0001).

Conclusion

DR youth had higher initial depressive, anxiety, and stress, were slower to recover, and had elevated anxiety and stress scores at medical clearance than normal-recovery-SRC and SRF youth. Mental health should be monitored during concussion recovery.

Theme:

Clinical

Do you have a table/figure to upload?

No

Are you willing to participate in Goodbear's Den?

Yes

Presenter Status:

Undergraduate Students

What was your role in the project?

Write Abstract

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