

Prevalence and Differences of Sport Concussion Symptoms and Severity among Male and Female University Student Athletes

TACEY HOWELL AND KRISTEN MCALEXANDER

Exercise Physiology Laboratory; Department of Exercise Science and Sport Management; Schreiner University; Kerrville, TX

Category: Undergraduate

Advisor / Mentor: McAlexander, Kristen (kmcalexander@schreiner.edu)

ABSTRACT

The prevalence of sport concussions continues to increase among university student athletes in the United States. Earlier methods of prevention, such as the Halo and modified football and hockey helmets, have not resulted in significantly fewer sport concussions. Further, even less is known about the differences between male and female university student athletes' concussion symptoms and severity. **PURPOSE:** To measure sport concussion prevalence among university student athletes and compare the severity of self-reported symptoms among university male and female student athletes. **METHODS:** In the Fall of 2021, a modified version of the SCAT5 (Sport Concussion Assessment Tool, 5th Edition) was emailed to 335 male and female NCAA Division III and varsity club student athletes at a rural, liberal arts university. Descriptive analyses were conducted to examine the prevalence of sport concussions and symptom severity. **RESULTS:** Fifty-one participants (*M* age=19.74 years) representing 10 university sports, some being dual sport athletes (*N*=5), including 16 males (baseball *N*=5, basketball *N*=4, cross country *N*= 2, golf *N*=1, soccer *N*=4, track and field *N*=2) and 35 females (basketball *N*=4, cross country *N*=2, golf *N*=2, soccer *N*=6, softball *N*=11, track and field *N*=2, volleyball *N*=4, wrestling *N*=3) responded. Fifty-one percent of participants reported being concussed and suffered from headaches, "pressure in head", nausea or vomiting, dizziness, blurred vision, balance problems, light sensitivity, noise sensitivity, feeling "in a fog", difficulty concentrating, difficulty remembering, fatigue, confusion, drowsiness, trouble falling asleep, irritability, sadness, and nervous or anxious. Female student athletes reported considerably higher severity scores for headaches, "pressure in head" and feeling "in a fog". Male student athletes reported higher severity scores for blurred vision, light sensitivity and difficulty remembering, though statistically significant differences were not obtained. **CONCLUSION:** Participants represented a variety of sports (impact and non-impact), and most reported suffering from a past concussion. Future studies should analyze the differences among different sports, various levels, and positions. Trainers, coaches, and players should be educated on symptoms and the progressions that may arise.