

Running Head: Sport Injuries

The Evaluation of Sport Injuries in Collegiate Athletes at Benedict College

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Spring 2020

Rosa, B. B., Asperti, A. M., Helito, C. P., Demange, M. K., Fernandes, T. L., & Hernandez, A. J. (2014) evaluated the incidence of sports injuries in college athletes from the same institution from 1993 to 2013. The purpose of this research was to learn about the presence and type of injury, type of treatment and time of withdrawal, that was based on the questionnaire "Injury Surveillance System." Data was analyzed with graphs and tables of injury prevalence by gender, age, site of injury and modality. Researchers also analyzed the average time of withdrawal of athletes, returning to sports practice. The sample consisted of eight hundred and thirty-seven college athletes, of both genders, who participated in sports in the last 20 years at Faculdade de Medicina da Universidade de Sao Paulo. Out of those students that were surveyed only 69.89% answered the questionnaire and 49.91% had sports injuries. Among men, 49.1% of the athletes had injuries and among women was 51%, which shows the similarity in injury incidence between both genders. The finding from the questionnaire concluded that 49.91% of the athletes showed some type of injury, with similar incidence between genders; the most frequent injuries were the anterior cruciate ligament (ACL) and the ankle sprain; the average withdrawal time was 11 weeks.

Kerr, Z., Marshall, S., Dompier, T., Corlette, J., Klossner, D., Gilchrist, J. (2015) conducted a research using information reported to the NCAA Injury Surveillance Program by a sample of championship sports programs. The purpose of this research was to summarize the estimated national annual average numbers of injuries during the 5 academic years from 2009–2010 through 2013–2014. During that time, researchers found that 1,053,370 injuries were estimated to have occurred during an estimated 176.7 million athlete-exposures to potential injury. Data was taken across all schools and across all available years for 12 men's championship sports and 13 women's championship sports. Among all 25 sports, an estimated

28,860,299 practice athlete-exposures and 6,472,952 competition athlete-exposures occurred each year. The 1,053,370 injuries estimated during the 5 academic years studied represented an average of 210,674 total injuries per year. Out of all these injuries a total of 134,498 (63.8%) occurred during practices. Overall, 21.9% of all injuries required more than 7 days before return to full participation. **The finding from this research** was that among all sports, men's football accounted for the largest average annual estimated number of injuries (47,199) and the highest competition injury rate (39.9 per 1,000 athletes). Men's wrestling experienced the highest overall injury rate (13.1 per 1,000) and practice injury rate (10.2 per 1,000). Among women's sports, gymnastics had the highest overall injury rate (10.4 per 1,000) and practice injury rate (10.0 per 1,000), although soccer had the highest competition injury rate (17.2 per 1,000).

Yang, J., Tibbetts, A. S., Covassin, T., Cheng, G., Nayar, S., & Heiden, E. (2012) conducted a research using a descriptive epidemiology study. **The purpose of this research** was to report the epidemiology of overuse injuries sustained by collegiate athletes, compare the rates of overuse and acute injuries, and because although overuse injuries are gaining attention, epidemiologic studies on overuse injuries in male and female collegiate athletes are lacking. An overuse injury was defined as a gradual-onset injury caused by repeated microtrauma without a single, identifiable event responsible for the injury. An acute injury was defined as trauma resulting from a specific and identifiable event. **The study sample consisted** of male and female collegiate athletes from 1 NCAA Division I institution in the Big Ten Athletic Conference. The athletes participated in 16 teams: men's baseball, basketball, cross-country and track and field, football, gymnastics, swimming and diving, and wrestling and women's basketball, cross-country and track and field, field hockey, gymnastics, rowing, soccer, softball, swimming and diving, and volleyball. A total of 1317 reported injuries sustained by 573 male and female athletes in 16

collegiate sports teams during the 2005–2008 seasons. These injuries and athlete-exposure (AE) data was obtained from the Sports Injury Monitoring System. **The finding from this research** was that a total of 319 male athletes sustained 705 injuries, and 254 female athletes sustained 612 injuries of all included injuries, 386 (29.3%) were overuse injuries, whereas 931 (70.7%) were acute injuries. Women's rowing and men's cross-country and track and field athletes had the greatest number of overuse injuries, and football players and wrestlers reported the highest number of acute injuries.

Hassebrock, J. D., Patel, K. A., Makovicka, J. L., Chung, A. S., Tummala, S. V., Peña, A. J., Chhabra, A. (2019) constructed a descriptive epidemiology study on spine injuries. **The purpose of the study** was to describe the epidemiology of lumbar spine injuries in collegiate athletes over a 6-year period. The NCAA-Injury Surveillance Program database was utilized to evaluate data from the 2009/2010 to 2014/2015 academic years. The lumbar spine injuries that occurred were identified by using the NCAA Injury Surveillance Program database. Rates of injury were calculated as the number of injuries divided by the total number of athlete-exposures. **The study sample** was determined by a voluntary convenience sample of NCAA varsity teams from 25 sports, athlete-exposures (AEs) were defined as any student participation in 1 NCAA-sanctioned practice or competition. Mechanism of injury, injury recurrence, and time lost from sport were recorded. **The findings** from this research was that an estimated 37,435 lumbar spine injuries were identified. The overall rate of injuries that was found was that 6.01 per 1000 AEs. The rate of injuries was 4.94 per 1000 AEs in men compared with 3.94 per 1000 AEs in women for sex-comparable sports. Men were 1.25 times more likely than women to suffer a lumbar spine injury. Men's football (24.62 injuries/1000 AEs) and women's gymnastics (11.46 injuries/1000 AEs) had the highest rates of lumbar spine injuries. Athletes were 1.83 and 3.71 times

more likely to sustain a lumbar spine injury during the preseason than the regular season or postseason. Noncontact was the most common mechanism of injury (38%). Injury recurrence was most common in men's outdoor track (58%). Most injuries resulted in less than 24 hours of time loss from event participation (61%). The rate of lumbar spine injuries was high in NCAA athletes, and injuries commonly recurred (20%). In general, men were more likely to sustain a lumbar spine injury compared with women. Higher injury rates occurred during competition and via a noncontact mechanism of injury.

Kerbel, Y. E., Smith, C. M., Prodromo, J. P., Nzeogu, M. I., & Mulcahey, M. K. (2018)

conducted an epidemiology study on hip and groin injuries in collegiate athletes. Hip/groin injuries are most common in sports that involve kicking or skating and sudden changes in direction and speed. **The purpose of this research** was to describe the rates, mechanisms, sex-based differences, and severity of hip/groin injuries across 25 collegiate sports. **The study sample** was determined from data from the 2009-2010 through 2013-2014 academic years from the National Collegiate Athletic Association Injury Surveillance Program. The rate of hip/groin injuries, mechanism of injury, time lost from competition, and need for surgery were calculated during this research. **The findings** that was found from the research was that in total, 1,984 hip/groin injuries were reported, giving an overall injury rate of 53.06 per 100,000 athlete-exposures. The adductor/groin tear was the most common injury. The sports with the highest rates of injuries per 100,000 AEs were men's soccer (110.84), men's ice hockey (104.90), and women's ice hockey (76.88). The most common injury mechanisms were noncontact (48.4% of all injuries) and overuse/gradual (20.4%). Overall, 39.3% of hip/groin injuries resulted in time lost from competition and only 1.3% of injuries required surgery.

The purpose of this study is to evaluate injuries affecting collegiate athletes caused from sports. This work will asset and bring awareness to student athletes who are practicing and competing in sports during their time in college. Finally, this work offers a variety of suggestions on how to prevent these injuries from happening.

Methodology

Participants

The participants for this study will be college student-athletes at Benedict College. A mixture of male and female track athletes, male and female basketball athletes, and football athletes.

Material

Procedure

Results

Discussion

References

- Hassebrock, J. D., Patel, K. A., Makovicka, J. L., Chung, A. S., Tummala, S. V., Peña, A. J., & Chhabra, A. (2019). Lumbar spine injuries in national collegiate athletic association athletes: A 6-season epidemiological study. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6348522/>.
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Appendix 1

Questionnaire

My name is Savionna Glover and I am a student at Benedict College. This brief questionnaire is for my senior paper. I am doing an additional study to evaluate sport injuries in collegiate athletes. This study has been approved by the Benedict College Institutional Board and your participation is voluntary. All responses are anonymous; therefore, you do not need to write your name on the questionnaire. By completing this questionnaire, you have provided me with your informed consent to the best of your ability. If at any time you may feel uncomfortable and would like to stop participating, please feel free to do so and return the questionnaire to me. Thank you for your time and participation.

Demographics: Please put a check by the line that corresponds to you.

<u>Age</u>	<u>Gender</u>	<u>Classification</u>
<input type="checkbox"/> 18-20	<input type="checkbox"/> Male	<input type="checkbox"/> Freshman
<input type="checkbox"/> 21-23	<input type="checkbox"/> Female	<input type="checkbox"/> Sophomore
<input type="checkbox"/> 24-27		<input type="checkbox"/> Junior
		<input type="checkbox"/> Senior

Major: _____

Instructions: Please fill in the circle that applies.

1. Have you ever been injured?

Yes

No

2. What sport were you injured in?

3. Did your injury affect your collegiate career in a big way?

Yes

No

4. Do you think after injuries athletes are more prone to getting injured?

Yes

No

5. Do you think athletes should be educated more on different types of injuries?

Yes

No

6. Have you had an injury that caused you to sit out for part of a season?

Yes

No

7. Have you ever had an injury that ended your collegiate career?

Yes

No

8. Do you think your injury occurred from lack of stretching or warming up?

Yes

No

9. Have you ever had the same injury twice?

Yes

No

10. Did your injury require surgery?

Yes

No

11. Have you ever had an injury that left you with permanent damage?

Yes

No

12. Did your injury require any treatment?

Yes

No

13. How many Injuries have you had?

1-3

4-6

7+

0

14. When during the season did your injury occur?

Before

Mid

- End

15. How long was your recovery?

- Weeks
- Months
- Year