

How Can Injury Prevention Programming Impact Mental Health of College Students?

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INTRODUCTION

The purpose of this study is to look at how injuries in collegiate sports compare to injuries in non-athletes. Several participants will be studied such as collegiate athletes, Club sport athletes, and unaffiliated college students. We will recruit from different teams on campus that our team has affiliations with. For example, we will send the survey to the basketball team, the football team, both club boxing and club lacrosse as well. We will use our connections at the Recplex to recruit students that have participated in intramural sports. The participants will be sent an online survey that is quick and easy to fill out. The inclusion criteria we are going to use are collegiate athletes, regular students that are still active on campus, and students who have dealt with an injury while in school. The exclusion criteria that we are going to utilize are people that are not college students, people that are not physically active on campus, and people that have not had some sort of injury in their time at school.

There are several aims that will be reviewed during this study. The first aim is to numerically determine depression and anxiety of participants based on specific symptoms, on a scale from 1-5. This study will also record the participants' knowledge and intervention of preventative measures, to determine if/how they implement them when competing. Lastly, this study aims to categorize injuries based on severity and longevity of the injuries, in order to determine what recovery means were necessary to be taken.

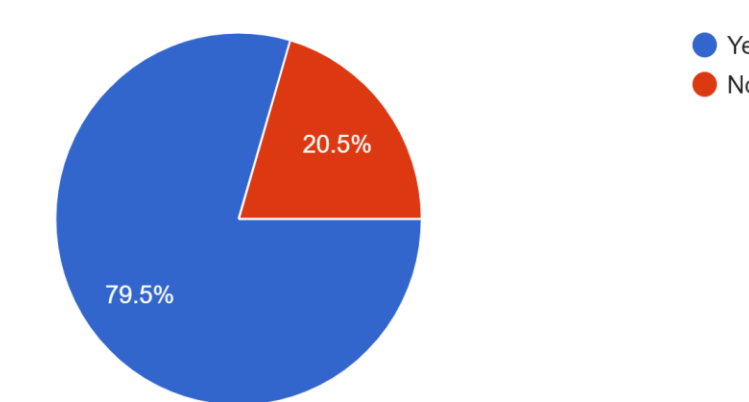
METHODS

In this research study a specific set of variables will be measured while utilizing an organized process of events. First, a survey will be sent out to a variety of collegiate athletes, Club sport athletes, and unaffiliated college students. The form will be accessible through email or a QR code. The survey will take about 5 minutes to complete, which allows for necessary information to be collected without turning students away. The responses will also be set to anonymous to avoid bandwagon and fear in the results. The target number of responses will be a minimum of 40. It is important that the data reflects each grade level of college and includes a section for informed consent. Also, the survey will consist of multiple-choice answers with some open-ended responses. It will also have resources listed at the end for students to reach out for help regarding mental or physical health. In this study, the variables will consist of depression and anxiety, knowledge, and injuries. To specify mental illness, the survey will contain a list of specific symptoms with numbers to rank the severity. Knowledge of prevention will be collected using questions and a scale of how familiar participants are with different methods for healing. Injuries will act as a variable and be operationalized using a scale of the length and severity to determine proper methods of recovery and treatment. Each of these variables will be helpful in studying injuries in various types of college students and the impact they have on mental health.

RESULTS

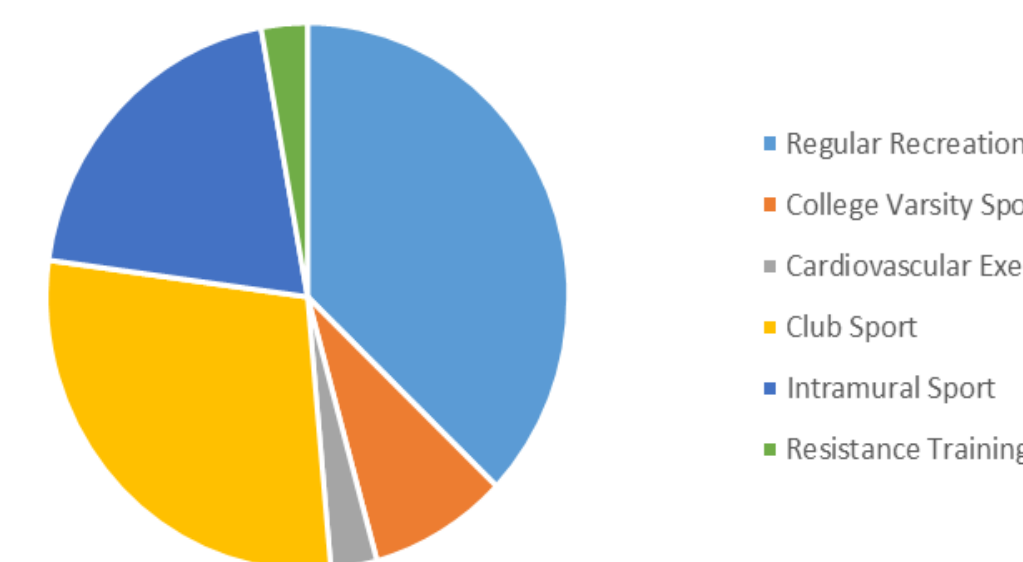
Out of the 44 participants in the survey 35 of them (79.5%) said that they experienced some sort of injury in college, and 66% of those participants claimed to be knowledgeable of and utilize injury prevention methods.

Have you experienced an injury while in college? (This could be an injury that you received at home that carried over to your time at school)
44 responses



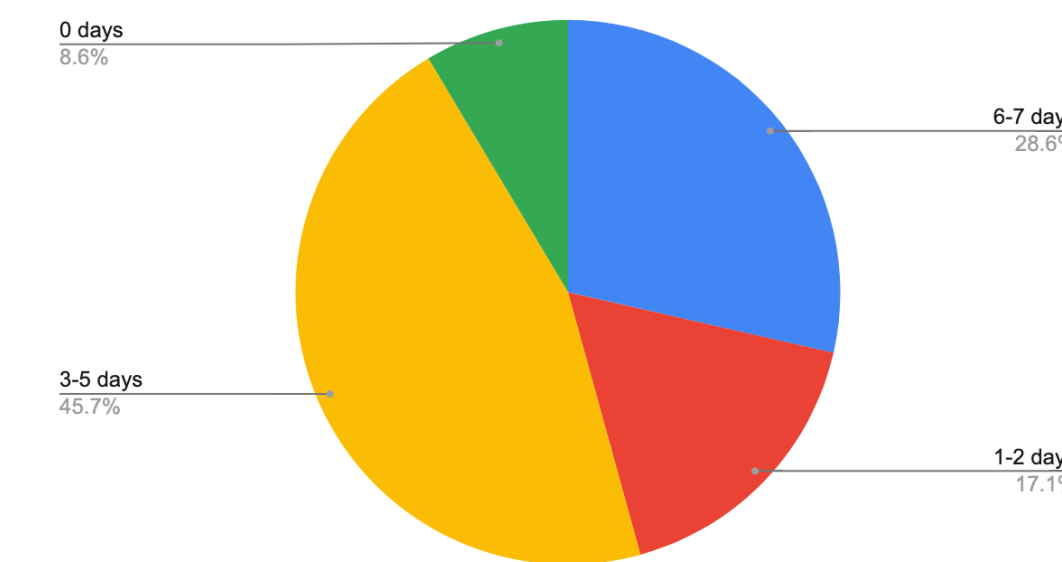
Within the 44 participants two categories had the highest percentage of people getting injured. The two methods were regular recreational activity (37.1%) and Club sports (28.6%). This data shows that our study consisted of a diverse population of athletic participants.

What Were You Doing That Resulted in the Injury?

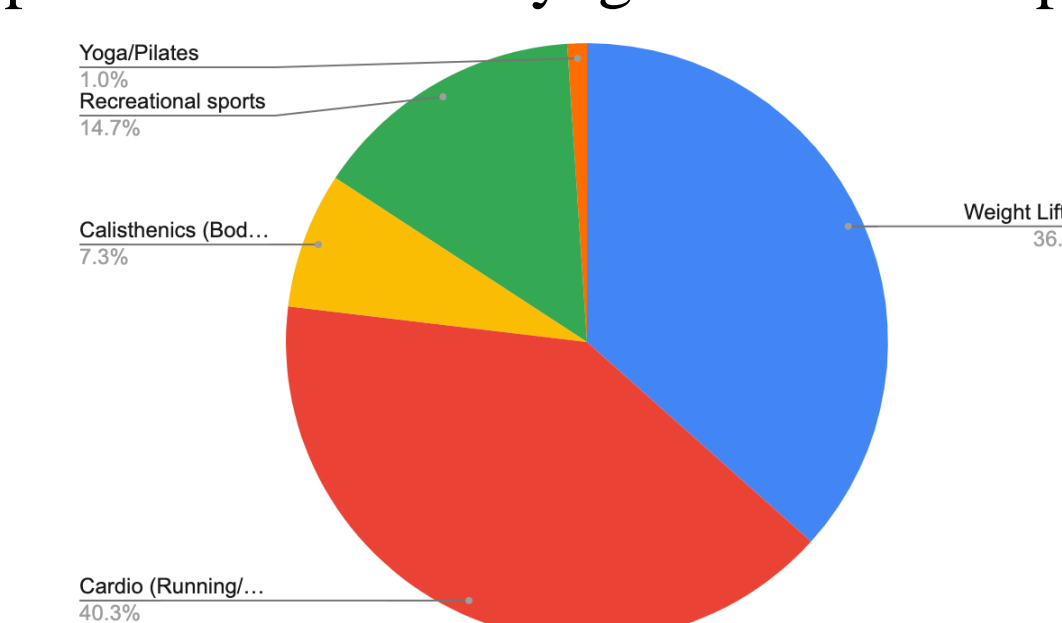


Out of the 44 participants in the survey, we wanted to see how many days per week they partake in exercise per week.

Count of How often do you exercise per week?

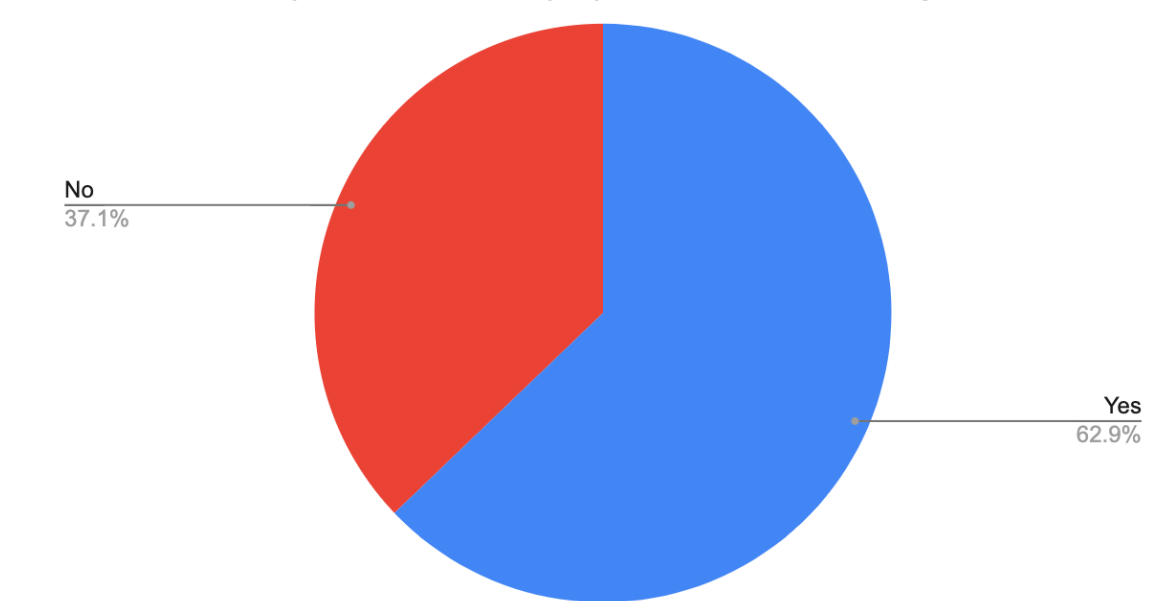


Out of the 44 participants, most of the participants partake in some sort of exercise 3-5 days per week with a percentage of 45.7% while the least amount of people are active zero days per week with a percentage of 8.6%. We also asked those individuals who partake in exercise, what type of exercise is the most common for these individuals. The most common sort of exercise that our participants partake in is cardio like running, biking and swimming which was 40.3% of the participants. The second most common type of exercise was weightlifting at 36.6% and the least common type of exercise was yoga at 1% of the participants.



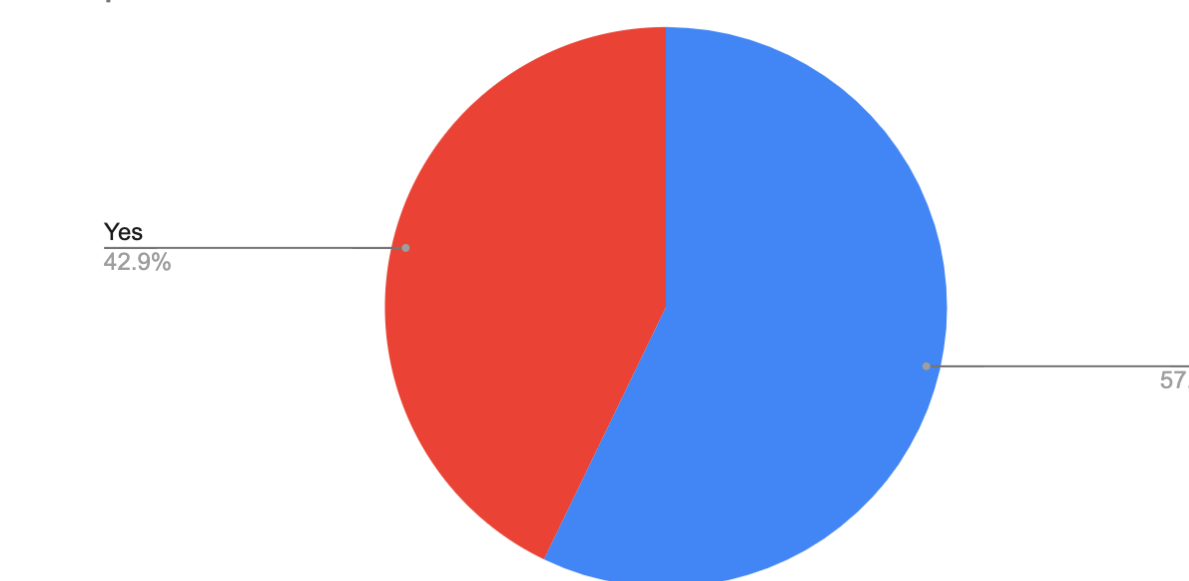
The participants also were asked if they knew or were aware of any injury training prevention methods. 62.9% of the participants were aware of ways that they could prevent an injury meanwhile 37.1% of all participants were not aware on different injury prevention methods.

Count of Are you aware of injury prevention training methods



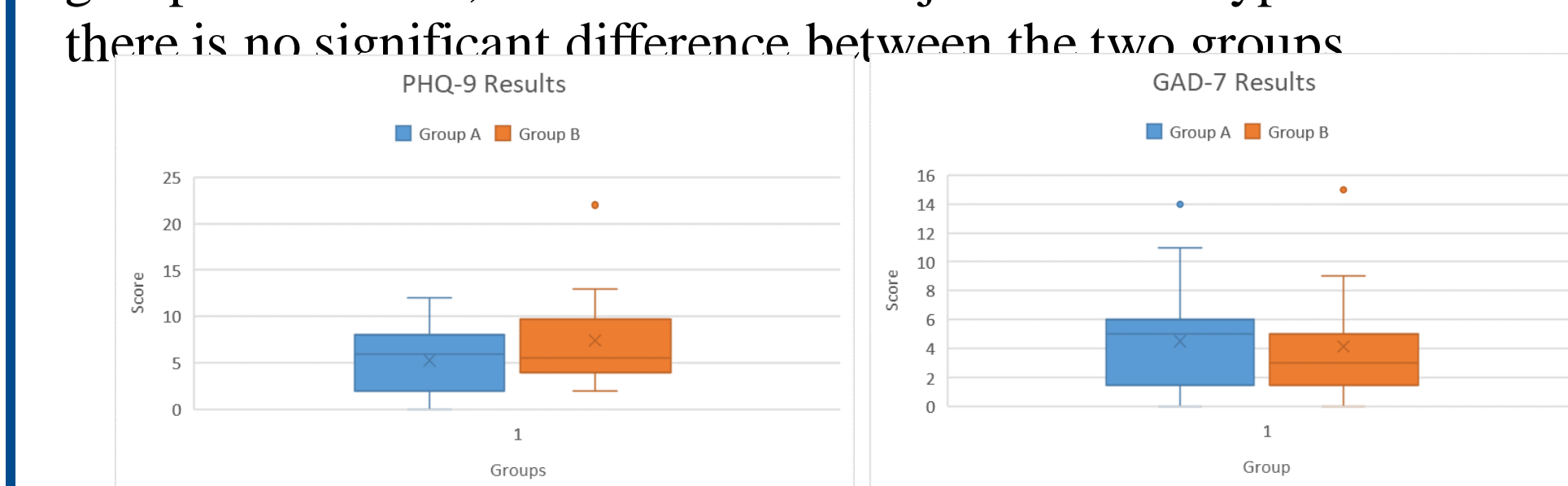
We then asked the participants if they have had at least some sort of education about injury prevention in the past. 42.9% of the participants said that they had some sort of previous education on injury prevention while 57.1% of the participants have not had any sort of education on different injury prevention methods.

Count of Have you had education in the past about injury prevention?



PHQ - 9 and GAD - 7

To assess the results of the PHQ-9, and GAD-7 test, a T-test was utilized to compare the scores of the group who said they were aware of injury prevention methods (Group A), and those who were not (Group B). Group A averaged a score of 5.3 on the PHQ-9 Test, and Group B scored a 7.4. Both the average scores lie within the moderate depression range (scores of 5-9). Although the two scores lie within the same range, on average Group A experienced less symptoms of depression than Group B. The overall data yielded a critical T-value of 1.69 and a T-statistic of -1.29, since the T-statistic does not exceed the critical value, the data is not significantly different. On the GAD-7 test which measured anxiety, Group A had an average score of 4.5, and Group B had an average score of 4.15. Both the average scores lie within the no or very mild anxiety range. The overall data yielded a critical T-value of 1.69 and a T-statistic of 0.25, since the T-statistic does not exceed the critical value, it indicates that the scores between the two groups are not significantly different. With both the PHQ-9 and GAD-7 tests having results that indicate there are not statistically significant differences between groups. Therefore, we would fail to reject the null hypothesis that there is no significant difference between the two groups.



CONCLUSIONS

Injuries in collegiate sports are comparable to injuries in non-athletes and can be analyzed by determining anxiety and depression symptoms of participants. Through this research study, participant's knowledge of intervention and prevention methods were analyzed by sending out a survey and reviewing the responses. It was determined that the majority of college students have experienced injuries in college that were most frequently caused by regular recreation. By utilizing the PHQ-9 and GAD-7 screenings, it was concluded that participants who were aware of prevention methods and those who were not were both moderately depressed with mild to no anxiety. Also, according to our survey results most students exercised 3-5 times per week with the most common types being cardio and weight lifting. Most of the participants were aware of injury prevention methods due to past education. In further studies, collecting information surrounding types of physical therapy and rehabilitation following injuries would be helpful to understand long-term mental health issues. Overall, the study was successful in displaying injuries in terms of severity and frequency to better understand recovery protocols and procedures among college students.

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