

An Analysis of Sleep Patterns in Student Athletes

Carly Simonian, Darice Haywood, Kira Sheehan & Kylie Christenson
Faculty Mentor: Dr. Kim Flottesmesch

Introduction

The demands of college athletes force students to alter their sleeping patterns in order to keep on a somewhat balanced schedule. One universal fact is that sleep is crucial for overall health and something that can be individually rectified. (Grandner, 2018) Sleep is a natural set event for everyday life, not a random occurrence.

Complete athletic health can only be achieved by resting your body and taking care of injuries when necessary. Sleeping for longer periods of time improves many aspects of athletic and physical performance, (Mah, 2011). College athletes are under significant amounts of pressure to accomplish all their athletic needs and schoolwork, often causing them to neglect their sleep schedule. The amount of rest a student athlete gets is crucial in their accomplishments both off and on the field.

The researchers chose to investigate how the amount of sleep an athlete gets nightly affects their day to day life. Specifically, the researchers explored the connection between the amount the participants slept per night and the way that they answered questions relating to their overall health and communicative competence. The study was conducted in order to determine the relation between these things, and to show student athletes how important it is to incorporate sleep as a main priority into their schedule.

RQ1: How are a student athletes communication style and interpersonal skills with others impacted by their sleep schedule and those resulting stressors?

RQ2: What are the specific components in a student athletes life affected by the amount of sleep acquired per night? How is this affecting their physical and mental health?

Research Methods

To keep the surveys as organized and accurate as possible, the researchers used an online survey-generator website called Survey Monkey.

Participants:

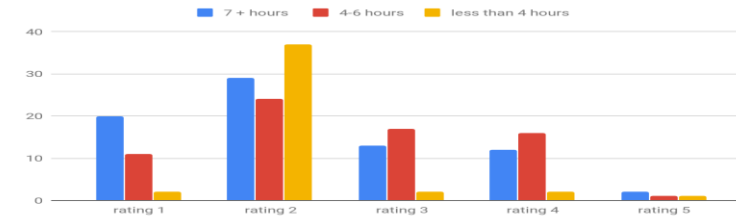
Participants for this study were undergraduate student athletes between the ages 18 and 22 from a private university in the Midwest. Of the 120 surveys distributed, 120 were completed giving the researchers a 100% response rate.

Procedure:

The survey was self administered, each containing ten closed ended questions. The survey questions focused on how the participant felt throughout the day while doing their schoolwork, participating in sports practice, and competing in games. The study lasted a total of 2 school weeks, (10 days) The results were analyzed with three main components in mind: mental health, physical health, and overall communicative competence. The participants were asked to track how many hours of sleep that they got each night, along with nine follow-up questions to determine the effect this had on them. The results from these questions were then cross tabulated to achieve our results from the chi square

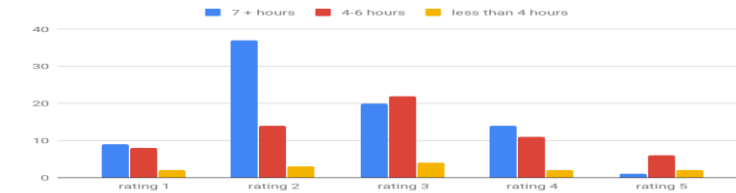
Results

Stress Based on Hours Slept



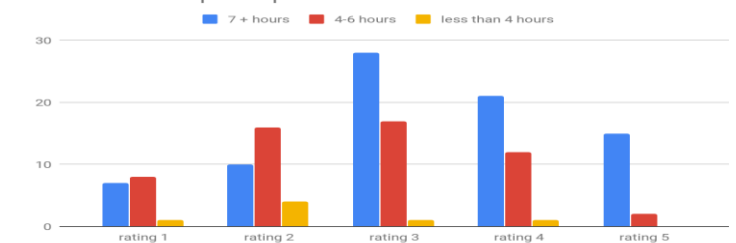
Participants were asked a series of questions related to stress to determine if their sleep patterns influenced their stress levels. A chi square contingency (or chi square test with association) indicated no significant correlation, (P-value = .165275), between stress and how much sleep participants got.

Mental/Physical Health Based on Hours Slept



Participants answered a series of questions relating to various topics. These questions included asking about how sore the athlete felt, and how emotional they were throughout the day. A chi square contingency indicated no significant correlation, (P-value = .076869), between mental and physical health and the amount of sleep the participant got per night.

Stress and Sleep Compared



- A chi square contingency between communicative competence and the amount of sleep participants got in a night have a significant correlation to one another. P-value = .035383).

Discussion & Conclusion

To address these aspects of an athletes sleep schedule along with their mental and physical health, the researchers chose three theories to help explain the data.

Self Efficacy Theory is one's belief in one's ability to succeed in specific situations or accomplish a task (Bandura, 1977).

- Tested athletes had a high Self Efficacy
- Most athletes believed that they had enough sleep and were more productive
- The tested athletes organized their activities in predictable and profitable routines

Self Worth Theory is the view that one's achievement behavior is conceptualized in terms of their self perception and motivation to approach success and to avoid failure (Covington & Beery, 1976).

- Majority of tested athletes have a sense of strong self worth, Most were success oriented, Many took day-to-day preparations seriously
- Restoration Theory involves the stages of NREM sleep, which is crucial for their restorative physical and cognitive properties (Grandner, 2018).

Hypothesis: Although there was not a significant correlation between the athletes physical and mental health and their sleep schedules, there was a significant correlation between their communicative competence and their sleep schedule.

Conclusion: The study done by the researchers gave a good idea of the correlation between an athletes sleep schedule every night, their physical and mental health, and their communicative competence. They found that athletes are in fact affected by the number of hours of sleep that they get.

Further Research

Some suggestions for future research include extending the period that the participants are studied for, as well as adding participants from different backgrounds and sports teams to give a more accurate representation of the student athlete population.

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