The Impact of Quality of Sleep on Academic Performance in University Students

Participants in this study reported variables that were not expected to affect quality of sleep. The variables included the following: “sorority schedule,” “social media,” and “being in love.”

Methods

Instrument: Each participant was asked to complete a self-administered electronic questionnaire that collected demographic information such as gender, age, and ethnicity. The questionnaire included 19 questions consisting of a sleep profile and an academic profile, assessing quality of sleep and academics. The sleep quality profile encompassed sleep duration, sleep environment variables, daytime sleepiness, and the use of sleep remedies. The academic profile inquired about the number of enrolled courses, and the current cumulative Grade Point Average (GPA).

Analysis: Data were entered and analyzed using a computer program, R (Rcmdr), which is a platform-independent basic-statistics GUI (graphical user interface) for R programming language (Fox, 2005). This program was used to analyze the sample demographics and answers to the questionnaire. Tests for group trends used Chi-squared test for independence to compare categorical data. A one-way analysis of variance (ANOVA) was used test for significance in difference of means for normally distributed numerical data of independent groups. To dichotomize the scores, the groups of participants taking less than or equal to three courses were consolidated, because it contained less than 5% of the total sample. Statistical significance was denoted by P values <0.05.

Conclusion: There is a lack in teaching of very simple modifications in sleep hygiene to improve the quality of sleep in university students, and subsequently, their overall academic performance. Using the results of this study, students of any age could be taught what it means to have healthy sleep hygiene. By doing this, students are made aware of the habits they need to obtain to increase overall quality of sleep. An overview of sleep hygiene skills would also be taught as a sleep education component in everyday curriculum.

In addition to being educated about sleep hygiene skills, the students would become more aware of the various types of sleep hygiene skills that exist, and how these skills can help reduce daytime sleepiness and positively affect their ability to learn.

Discussion

The need of implementing a sleep education program component to students has been identified. A sleep education program would teach students how sleep hygiene can be used to improve daily sleep habits by counseling the student to go to bed and wake up at the same time each day, avoid consuming caffeine and other stimulants in the late afternoon and evening, monitor nighttime eating, and engage in relaxing activities before bed, such as reading or listening to soothing music. By introducing these skills, the students will become more aware of the various types of sleep hygiene skills that exist, and how these skills can help reduce daytime sleepiness and positively affect their ability to learn.

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