Sleep Deprivation and School Performance
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Sleep, a major necessity of a healthy functioning body and mind often gets overlooked in children with behavior and school performance problems. Problem Although there is no one cause to children’s behavior and performance in school, the theory that inadequate sleep affects these continues to be a valid argument. Purpose This preliminary study tested the relationship between inadequate sleep and school performance in fifth grade children. Sample, Setting, and Design In this descriptive correlational study, thirty-three fifth grade children in two Georgia elementary schools between the ages of ten and eleven were asked to assess their sleep using the Sleep Self Report Questionnaire. Teachers were then asked to evaluate their students’ behavior using the Teacher’s Daytime Sleepiness Questionnaire. Results The results of the study found that there was a moderate positive correlation between the two variables. Conclusion Inadequate sleep is thought to play a role in behavior and school performance, however further research needs to be done to assess other variables involved in sleep and behavior.

INTRODUCTION
The problem of impaired functioning and behavior in school related to inadequate sleep is high. Recognition that sleep affects overall health is lacking in the health care field. Research in this area is minimal. Inadequate sleep in children and how it affects their performance at school is overlooked in many instances. The purpose was to find out if there is a relationship between school performance and the presence of adequate or inadequate sleep in school-aged children. The theoretical background is based on Maslow’s hierarchy of needs. Few studies have been performed directly on this topic. Of the studies conducted Smaldone, Honig, Byrne, (2007) show that children who receive inadequate sleep are reported by their parents to have poorer school performance than children who receive adequate sleep. Sleep problems at age 3 were related with lax parenting at age 2 and increased aggression at age 4 (Hall, Zubrick, Silburn, Parsons, & Kurinczuk, 2007). Amschler & McKenzie (2005) found there was a positive relationship between student’s reports of inadequate sleep and their teachers’ reports of behavior related to inadequate sleep. Inadequate sleep can also lead to unintentional injuries in children. More injuries were reported on the children who did not get the correct amount of sleep or the same amount every day (Koulouglioti, Cole, and Kitzman, 2008). It is evident that sleep affects children and how they function.
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overall and it is also evident that further research needs to be conducted. Sleep is a major contributor to health problems and is overlooked throughout life. The hypothesis states: When sleep is inadequate, school performance and behavior decrease. Research questions include: Does sleep affect school performance and behavior? When adequate sleep is achieved, is school performance and behavior in the classroom improved? When sleep is inadequate is school performance and behavior poor?

METHODS

The proposed setting was conducted in two participating public elementary schools in Troup County Georgia. Teachers distributed the surveys during scheduled class periods. The design was a descriptive correlational design. The proposed sample included fifth grade elementary school boys and girls. The sampling criteria included that 1) the student be between ten and eleven years old and 2) the student is absent of cognitive problems. The sample size consisted of 33 children. All children in five fifth grade classrooms were included in the sample provided they met the inclusion criteria. The Sleep Self Report was used to measure the amount and quality of sleep of children in fifth grade. The scale consisted of a three-point Likert type scale ranging from “usually” (5-7 times per week) to “sometimes” (2-4 times per week) to “rarely” (0-1 time per week) and a higher score indicated more disturbed sleep. Teachers were asked to complete a Teacher’s Daytime Sleepiness Questionnaire on children in their class. The scale consisted of a three-point Likert type scale ranging from “usually” (everyday) to “sometimes” (at least once per week) to “never or rarely” (less than once per week). A higher score indicated more daytime sleepiness behavior. Informed consent forms were sent home with each student and teachers distributed the surveys in class to the students whose parents approved. Students answered the survey and returned them in unmarked manila envelopes. Teachers assigned a corresponding number for each student and then answered a survey addressing each student’s behavior. All data was stored in a locked filing box located in the Lagrange College Nursing Department. The data was retrieved from the elementary school teachers by the researchers on the day the surveys were returned. The data collection instruments were checked for completeness and only those instruments fully completed and matched with a teacher’s instrument were included in the analysis.

RESULTS

The results show that there is 25% correlation between sleep and school performance. This is a moderate positive correlation. The Pearson correlation coefficient was 0.482 on a scale of −1 to +1. Thus, the hypothesis was supported by the results. However, due to the weakness of the correlation these results are not significant enough to explain a direct relationship between sleep and school performance.
DISCUSSION

Results indicate a moderate positive correlation of student's sleep to classroom behavior. Findings indicate that the majority of fifth-grade students are often not getting the amount or quality of sleep they need. Many of the students rated their sleep as inadequate as evidenced by a high score on the SSR questionnaire. For most students, the teacher had few or no problems with the student in the classroom which leads to suggest a limitation of the study. Many of the behaviors being measured on the TDSQ may be influenced by other factors other than sleep. The results of the study relied on the students and teachers to answer the questionnaires, therefore there was no significant control. Also, asking the students to recall previous behavior may not have been as reliable as desired. Although this research suggests a moderate positive correlation of sleep and classroom behavior, the limitations may have skewed the results. Further research is suggested to determine the nature of sleep in children and how their quality of sleep can be improved. It is also needed to identify ways teachers can more accurately recognize students with sleep problems in order to offer help. A few areas to focus on for a better correlation in future research is better control, a bigger sample size and a broader geographical area of students included in the study. Measuring sleep and school performance over time would also suggest better validity. Due to the lack of education provided to children and their parents, many people are unaware of the consequences of inadequate sleep. People are also unaware of the benefits of sleep on a person’s health. Further education should be emphasized in schools and in doctor’s offices starting at a young age.

REFERENCES


