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A STUDY TO ASSESS SLEEP HYGIENE AND ACADEMIC PERFORMANCE AMONG ADOLESCENTS IN A SELECTED SETTING, CHENNAI

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ABSTRACT

Sleep hygiene includes behaviours and environmental conditions that promote restful sleep, and adolescents are particularly at risk for poor sleep due to circadian rhythm changes, academic pressure, and increased screen use. This quantitative descriptive correlational study assessed sleep hygiene and academic performance among 60 adolescents aged 13–16 years in a private school in Velachery, Chennai, using a socio-demographic questionnaire, Sleep Hygiene Index (SHI), and academic scores. Results showed that 66.7% had moderate sleep hygiene, 31.7% good, and 1.7% poor, while 45% scored above 75% academically, 43.3% between 51–74%, and 11.7% below 50%, with mean SHI score of 33.75 (SD = 5.76) and mean academic score of 57.43 (SD = 7.51). A strong positive correlation (r = 0.92) was observed between sleep hygiene and academic performance, though no significant associations were found with demographic variables at the 0.05 level. Despite limitations such as small sample size, convenience sampling, cross-sectional design, and reliance on self-report, the findings suggest that better sleep hygiene is associated with improved academic outcomes, highlighting the need for sleep hygiene education and further research using larger samples and experimental approaches.

Keys: *Sleep Hygiene, Academic performance, Adolescents etc*

INTRODUCTION

Sleep hygiene comprises behaviours, routines, and environmental conditions that support restorative sleep. Poor sleep hygiene—irregular sleep schedules, nighttime screen use, caffeine late in the day, and suboptimal sleep environments—has been associated with negative outcomes across physical and mental health domains, including impaired immune function, mood disorders, and cognitive decline. Adolescence is a developmental period with biologically shifted sleep timing (delayed sleep phase) combined with academic and social pressures that often reduce sleep duration. Because sleep supports memory consolidation, attention, and executive function, sleep hygiene is a plausible determinant of academic performance. The uploaded study (research 12.04.26.docx) examined sleep hygiene and academic performance among adolescents at a private higher-secondary school in Velachery, Chennai, using the Sleep Hygiene Index (SHI) and recent mark scores to explore relationships and demographic associations.

Statement of the problem A study to assess sleep hygiene and academic performance among adolescents in a selected setting, Chennai.

Objectives

- To assess the quality of sleep and academic performance among adolescents.
- To examine the correlation between sleep hygiene and academic performance among adolescents.
- To evaluate the association between sleep hygiene and academic performance with selected demographic variables

RESEARCH HYPOTHESIS

H_1 : There will be a significant relationship between the sleep hygiene and academic performance among adolescents.
H_2 : There will be a significant association between the sleep hygiene and selected demographic variables.

Methodology

The study used a quantitative descriptive correlational design and was conducted among 60 adolescents (13–16 years) at David Matriculation Higher Secondary School, Velachery, Chennai, selected through convenience sampling. Data were collected using the Sleep Hygiene Index (SHI), academic scores, and a demographic questionnaire. Questionnaires were administered during school hours, and data were coded and analyzed using statistical software. Descriptive statistics summarized the data, while Pearson correlation (r = 0.92) and chi-square tests assessed relationships and associations at $p < 0.05$.

Data Analysis

- Descriptive statistics (frequency, percentage, means, standard deviations) to characterize sleep hygiene levels and academic performance categories.
- Inferential statistics: correlation analysis (reported correlation coefficient r) between SHI score and academic performance; chi-square tests to examine associations between sleep hygiene / academic performance and demographic variables. The source document reports use of descriptive and inferential analyses; reported summary statistics and chi-square outputs are included below.

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RESULTS AND DISCUSSION

The first objectives was to assess the sleep hygiene and academic performance quality among adolescents.

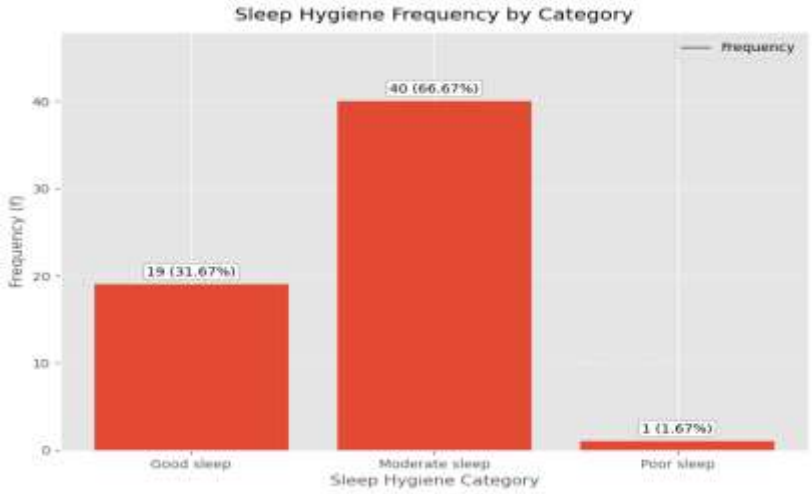

Figure: 1 Percentage and Distribution of Sleep Hygiene among adolescents

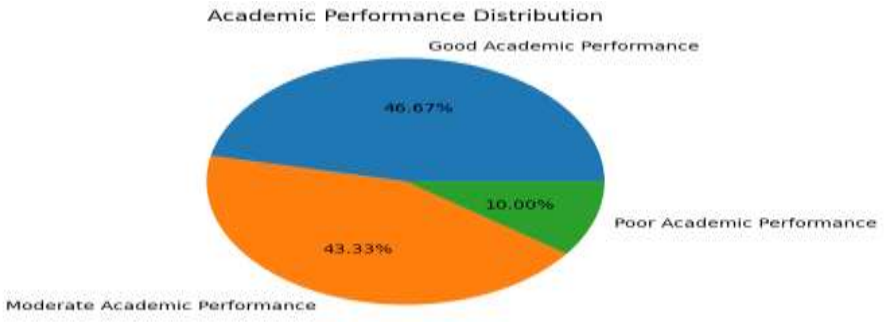

FIGURE 2 Overall Percentage and distribution of academic performance among adolescents.

Fig :2 Shows that (31.66%) were had good sleep hygiene among adolescent, (66.66%) were had moderate sleep hygiene and (1.66%) were had poor sleep hygiene among adolescent.

The second objectives was to find the correlation between sleep hygiene and academic performance among adolescents

S.no	Variables	MEAN	STANDARD DEVIATION	CORRELATIO N COEFFICIENT
1	Sleep hygiene	33.75	5.760	
2	Academic performance	57.43	7.514	r =0.92

Table: 1 revealed that the mean sleep hygiene score was 33.75 with a standard deviation of 5.76, and the mean academic performance score was 57.43 with a standard deviation of 7.51. There was a statistically significant difference between sleep hygiene and academic performance at the $p < 0.05$ level, indicating that sleep hygiene significantly influences academic performance among adolescents. The study findings was supported by Dewald-Kaufmann, Oort, and Meijer (2014) conducted a study among secondary school adolescents to examine sleep hygiene and academic functioning. The study reported a mean sleep hygiene score of 34.2 ± 5.4 and a mean academic performance score of 58.6 ± 7.2. A moderate positive correlation ($r = 0.41$, $p < 0.01$) was observed between sleep hygiene and academic performance, indicating that better sleep hygiene was significantly associated with higher academic achievement.

The third objectives was to find the association between sleep hygiene and academic performance with selected demographic variables.

The study findings reveals that there was no statistically significant association of age, gender, standard of education, Religion, type of family, mother education, parents monthly income, father occupation, mother occupation, no of siblings, accommodation, specific habits, type of school, duration of sleep, overall academic percentage in the previous test between sleep hygiene and academic performance among adolescents

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NURSING IMPLICATIONS

The findings of the study highlight significant implications for nursing practice, nursing education, nursing administration, and nursing research. Nurses play a vital role in promoting healthy sleep habits among adolescents, which in turn enhances their academic performance and overall well-being.

NURSING PRACTICE

- Community health nurses and school health nurses should routinely assess adolescents' sleep patterns and sleep hygiene practices during health check-ups.
- Nurses should provide education on the importance of adequate sleep, maintaining consistent sleep schedules, and reducing the use of electronic devices before bedtime.
- Health education sessions can be organized in schools to promote proper sleep hygiene and stress management strategies.
- Nurses should counsel adolescents with poor academic performance to identify possible sleep-related issues and offer appropriate guidance.
- Nurses should also educate parents to support and reinforce healthy sleep practices at home.

NURSING ADMINISTRATION

- Nurse administrators should design and implement school health programs focusing on sleep hygiene and adolescent mental health.
- Policies should be established to incorporate sleep assessment into routine school health services.
- Adequate resources and educational materials should be provided to support awareness programs on sleep hygiene.
- Collaboration among nurses, teachers, parents, and other healthcare professionals should be encouraged to improve adolescents' sleep habits and academic outcomes.

NURSING EDUCATION

- Nursing curricula should include topics related to sleep hygiene, adolescent sleep disorders, and their impact on academic performance.
- Nursing students should be trained to identify sleep-related problems and deliver health education to adolescents and their families.
- Teaching–learning methods such as seminars, workshops, and case discussions should focus on adolescent sleep health.
- Emphasis should be placed on developing effective communication skills among nursing students to enhance counselling abilities**.**

NURSING RESEARCH

- The study provides baseline data for future research on sleep hygiene and academic performance among adolescents.
- Nurses can conduct experimental or longitudinal studies to evaluate the effectiveness of sleep hygiene interventions.
- Comparative studies can be carried out across different settings, such as urban and rural schools.
- Further research can explore the relationship between sleep hygiene, mental health, and behavioural outcomes among adolescents.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations are proposed to improve sleep hygiene and academic performance among adolescents:

- Health education programs should be conducted in schools to increase awareness about the importance of good sleep hygiene and its influence on academic performance.
- School health nurses should regularly assess sleep patterns and sleep-related problems during routine check-ups.
- Adolescents should be encouraged to maintain consistent sleep–wake schedules and limit the use of electronic devices before bedtime.
- Parents should be educated and actively involved in promoting healthy sleep habits at home.
- Counselling services should be made available for adolescents experiencing poor sleep, stress, or academic difficulties.
- Sleep hygiene guidelines and educational materials should be developed and distributed in schools.
- Interventional studies should be undertaken to evaluate the effectiveness of sleep hygiene education programs on improving academic performance.
- Similar studies should be replicated with larger samples and in diverse settings to enhance generalizability.

Ethical Considerations

- Ethical committee approval was obtained
- Informed consent was obtained from studyparticipants in language known to them after explaining the purpose of the study.
- Confidentiality was maintained

Conflict of interest: The authors have no conflict of interest to declare
Financial support and sponsorship: Nil
Acknowledgement: We are grateful to the all participants.

CONCLUSION

The study concludes that sleep hygiene plays a vital role in the academic performance of adolescents. Poor sleep hygiene negatively affects concentration, memory, and overall academic achievement. The findings emphasize the need for increased awareness regarding healthy sleep practices among adolescents. Nurses, as health educators and advocates, have a crucial role in promoting sleep hygiene through school health programs, counselling sessions, and parental education. Early 40 identification of sleep-related problems and implementation of preventive strategies can help improve both the health and academic performance of adolescents. The study highlights the importance of integrating sleep hygiene education into adolescent health and nursing practice to foster holistic development.

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