

Research Paper

Academic Stress and Sleep Quality Among Adolescents: A Comparative Study Between Public and Private School Students

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ABSTRACT

In this day and age academic strain has surfaced as a serious concern among the adolescents. Its detrimental effect can be seen on physiological and psychological well-being of the adolescents. One of the most critical aspects of adolescent's health; the quality of sleep is often risked under consistent academic stress. By comparing school pupil from private and public educational institutions, current study critically investigates the relationship between sleep quality and academic stress among adolescents. A study was conducted with 400 students (age group 14 to 18 years) 200 from private schools and 200 from public schools. Pittsburgh Sleep Quality Index and the Academic Stress Scale were used to evaluate quality of sleep and perceived academic stress. Findings indicated that students from private schools significantly reported disturbed sleep and higher academic strain in comparison to their counterparts from public school. A remarkable negative correlation was found between sleep quality and academic pressure. This result suggests that high academic stress is notably associated with fragmented sleep. These research findings highlight the critical need for educational interventions to manage pressure in academics and cultivating a restful sleep routine among adolescents, specifically in stressful academic settings.

Keywords: *Adolescents, Academic Stress, Sleep Quality, Psychological Health, Private School, Public School*

Adolescence is the crucial developmental stage in life span development which is characterized by various social, emotional, biological, and psychological transformations, making it most susceptible period for physical and mental health challenges. Academic stress, the emerging concern can be defined as the physiological reaction to academic challenges that surpasses an individual's adaptabilities (Wilks,2008). In current educational realm, specifically within exam driven education systems, adolescents endure high expectations and face increased strain to excel, even at the cost of their psychological and emotional well being.

At the same time, quality of sleep among adolescents has worsened worldwide, with sleep deprivation, late bedtimes, inadequate sleep and deficient sleep period are becoming widespread (Lo et al., 2016). The major adverse outcomes of insufficient sleep includes

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Received: August 13, 2025; Revision Received: March 27, 2026; Accepted: March 31, 2026

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disorders related to mood, poor performance in academics and impairments in cognition (Owens et al., 2014).

The current study is rooted in the Transactional model of Stress and Coping (Folkman and Lazarus, 1984), which postulate that stress originates from disequilibrium between resources and demands. Adolescents are highly susceptible to fragmented sleep who experiences challenging academic workload with insufficient coping skills.

The education system of India presents a distinctive setting. Students from private schools repeatedly come across highly competitive environments, exaggerated hopes and rigid curriculum whereas students from public schools may deal with different range of problems such as less academic pressure and scarcity of required resources (Deb et al., 2015). By understanding how academic pressure becomes evident in these specific groups and its impact on quality and duration of sleep can inform situational and circumstantially-aware interventions.

LITERATURE REVIEW

Academic Stress in Adolescents Deb et al. (2015) reported elevated levels of academic stress specifically among students from urban private educational institutions. McKean and Misra (2000) spotted parental expectations, examinations and workload as key stressors. Huan and Ang (2006) identified that high flown academic expectations contributes to depressive symptoms and anxiety in adolescents. Larson and Lee (2000) found that rather than major events, day to day academic routine is primary reason of stress among students. Gupta and Verma (2017) found and confirmed among Indian high school goers that academic stress is a predictor of diminished emotional well-being and life satisfaction.

Sleep Quality in Adolescents Carskadon and Wolfson (1998) found that exacerbated by academic and social demands, adolescents highly experience biologically delayed phases of sleep. Lo et al. (2016) reported that sleep deprivation is linked with dysregulation in emotions and higher stress levels. Gradisar et al. (2011) observed that excessive academic load and screen time significantly contributes to disturbances in sleep patterns. Shochat et al. (2014) found that inadequate sleep in adolescents impairs mood regulation, learning and memory. Panda et al. (2012) demonstrated that specifically during examinations Indian adolescents regularly suffer from issues related to sleep.

Academic Stress and Sleep Quality Sadeh et al. (2000) reported a reciprocal relationship between sleep and stress in adolescents, with each aggravating the other. Roberts et al. (2009) observed that study related problems are the strongest predictors of sleep deprivation. Mahmood and Rana (2010) confirmed among Indian school goers, that academic strain is the prominent reason of impairment in sleep patterns. Verma and Singh (2019) spotted that interventions lessening academic stress improved both academic and sleep performance. Becker et al. (2018) emphasized the necessity of incorporating sleep education as important part of stress management methodologies in schools.

METHODOLOGY

Objectives

- To compare academic stress levels among public and private school adolescents.
- To compare sleep quality among public and private school adolescents.
- To examine the relationship between academic stress and sleep quality.

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Hypotheses

- **H1:** There will be a Private school students will report higher academic stress than public school students.
- **H2:** There will be a Private school students will report lower sleep quality than public school students.
- **H3:** There will be a significant negative correlation between academic stress and sleep quality.

Sample

The sample consisted of 400 adolescents (200 public schools, 200 private schools) from Haryana, belonging to the age range of 14-18 years. The sample was selected through simple random sampling.

Tool used:

- **Academic Stress Scale (ASS):** was developed by Sinha, Sharma & Mahendra, (2001) was used to measure perceived academic stress across multiple areas. Cronbach's alpha = 0.81.
- **Pittsburgh Sleep Quality Index (PSQI):** was developed by Buysse et al. (1989), was used to analyse the sleep quality of participants over the past month. Cronbach's alpha = 0.83.

Data Collection

Ethical clearance was obtained from the institutional review board. Parental consent and participant assent were secured. The questionnaires were administered in classroom settings under researcher supervision. Confidentiality was maintained.

RESULTS

Table no. 1, shows that Mean, Standard Deviation and t-test of Academic Stress on Adolescents.

Group	Mean	S.D	t- test	P- value
Private School (N=200)	80.4	8.1	7.12	0.01
Public (N=200)	73.1	7.4		

Table no.1, revealed that the mean of private school students i.e. 80.4 and corresponding SD=8.1, and the mean of public-school students i.e. 73.1, and corresponding SD=7.4. The mean difference of both groups (private and public-school students) had $t=7.12$, $p=0.01$. The mean difference was statistically significant at the level of 0.01.

Table no. 2, shows that Mean, Standard Deviation of Sleep Quality of Adolescents.

Group	Mean	S.D	t- test	P- value
Private (N=200)	8.2	2.3	5.43	0.01
Public (N=200)	6.6	2.0		

Table no 2, revealed that the mean of private school students i.e. 8.2 and corresponding SD=2.3 and the mean of public-school students i.e. 6.6, and corresponding S.D=2.0. The mean difference of both groups (private and public-school students) had $t=5.43$, $p=0.01$. The mean difference was statistically significant at the level of 0.01.

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Table no. 3, shows that inter-correlation between Academic Stress and Sleep Quality of Adolescents.

Variable	Sleep Quality
Academic Stress	.52**

** Significance level = 0.01

Table no. 3 shows that positive correlation between sleep quality and academic stress i.e. .52, which is statistically significant at the level of 0.01.

DISCUSSION

The research findings confirm all the four hypotheses. In comparison to students from public school, the private school students confirmed significantly elevated academic stress and poor quality of sleep. This supports the findings by Misra and McKean (2000) and Deb et al. (2015), which suggests that in private school students, stress is highly intensified due to high parental expectations and competitive curriculum.

The moderate positive correlation between PSQI scores and academic stress indicate that with increase in academic stress, the sleep disturbance intensifies. This aligns with the research studies by Verma and Singh (2019) and Sadeh et al. (2000), declaring the reciprocal impact of sleep and stress.

The academic pressure and stress significantly predict the quality of sleep is further validated by the regression results. Problems related to sleep deprivation are directly improved with the implementation of specific interventions which aimed at lowering academic stress. The research findings specifically emphasize the great necessity of stress management programs in schools, also focussing on sleep hygiene.

CONCLUSION

This study brings to the fore the detrimental effects of academic stress on adolescents' quality of sleep, being particularly at risk with the students from private schools. The evidences suggest that academic stress sharply varies by type of schools. It significantly affects the foundational aspect of health such as sleep. Addressing these greatly concerning issues is crucial for nurturing healthier and enriching learning atmosphere.

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Acknowledgment

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Jyotsana, K. (2026). Academic Stress and Sleep Quality Among Adolescents: A Comparative Study Between Public and Private School Students. *International Journal of Indian Psychology*, 14(1), 2902-2906. DIP:18.01.290.20261401, DOI:10.25215/1401.290