

## Sleep Deprivation and its Affect on Youth

Shine Grover<sup>1\*</sup>, Dr. Anita Chauhan<sup>2</sup>

### ABSTRACT

Sleep deprivation has become an increasing concern among young adults, particularly college students, as it significantly impacts cognitive functioning, stress levels, and daily productivity. This study aimed to examine the relationship between sleep deprivation, perceived stress, and work and social adjustment. Using a sample of college students, data were collected through validated psychological measures. The findings revealed a significant positive link amongst sleep deprivation and perceived stress, indicating that individuals who experience inadequate sleep report higher levels of stress. Additionally, sleep deprivation negatively impacted work and social adjustment, demonstrating that those with insufficient sleep struggled to maintain productivity and effective social interactions. The results supported the hypothesis that sleep deprivation increases perceived stress and impairs daily functioning. These findings align with existing literature suggesting that chronic sleep deprivation heightens emotional dysregulation, reduces stress tolerance, and weakens cognitive resilience. Given the implications of these findings, it is essential to address sleep hygiene and stress management strategies among students to improve mental health and overall well-being. Future research should explore intervention programs tailored to enhance sleep quality and coping mechanisms to mitigate the adverse effects of sleep deprivation.

**Keywords:** *sleep deprivation, perceived stress, work and social adjustment, college students, psychological well-being*

In today's fast-paced world, sleep deprivation has become a common yet often overlooked issue among young adults. The increasing demands of academic performance, work obligations, and the digital era's constant connectivity have significantly contributed to irregular sleep patterns (Hirshkowitz et al., 2015). While many young individuals may perceive sacrificing sleep as a necessity to meet their responsibilities, research suggests that chronic sleep deprivation has profound influence on both psychological and physiological well-being (Walker, 2017).

Sleep deprivation refers to a consistent lack of sleep or poor-quality sleep that fails to meet the body's restorative needs (American Academy of Sleep Medicine [AASM], 2020). It is commonly characterised by difficulty in maintaining alertness, impaired concentration, and emotional instability (Dinges et al., 1997). Studies indicate that factors such as academic pressure, excessive screen time, late-night social media engagement, and irregular work

<sup>1</sup>Student

<sup>2</sup>Assistant Professor

\*Corresponding Author

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## Sleep Deprivation and its Affect on Youth

schedules contribute to an increase in sleep deprivation among youth (Lemola et al., 2015). The widespread use of smartphones and social media, in particular, has been linked to delayed sleep onset, shorter sleep duration, and poor sleep quality (Leone & Sigman, 2020).

Adequate sleep is essential for cognitive functioning, emotional regulation, and overall health. Sleep is an important factor in memory consolidation, decision-making, and maintaining emotional resilience (Rasch & Born, 2013). Lack of sleep has been associated with heightened stress responses, reduced problem-solving abilities, and an increased risk of anxiety and depression (Beattie et al., 2015). Additionally, long-term inadequate hours of sleep can lead to physical issues related to our well-being, including diminished immune function, elevated susceptibility to heart-related diseases, and metabolic disorders (Buysse, 2014).

The prevalence of sleep deprivation among young adults is a growing concern worldwide. CDC, 2017 found that over 35% of individuals in the U.S divulged in inadequate sleep duration. Similarly, a study by Lund et al. (2010) revealed that 60% of college students experience poor sleep quality, with stress and academic demands being major contributing factors. In India, research by Tripathi & Mishra (2020) highlighted that over 70% of university students report insufficient sleep, often due to late-night studying and social media use. These alarming statistics emphasise the need to take a look into the consequences of inadequate sleep cycle on youth and its impact on their daily functioning.

The affect of inadequate sleep on psychological health, stress, and daily functioning can be understood through various psychological theories. These frameworks help explain why poor sleep quality affects emotional regulation, cognitive performance, and overall well-being. One such theory is Cognitive Load Theory (Sweller, 1988), which propose that a human brain capacity is limited for processing stimuli from the environment at any given time. Sleep plays a crucial role in consolidating learning and clearing unnecessary cognitive load, allowing for better decision-making and problem-solving (Van Der Linden et al., 2003). When sleep is disrupted or insufficient, cognitive resources become overwhelmed, leading to increased stress and impaired executive functioning. As a result, individuals may struggle to regulate emotions, concentrate on tasks, and cope with daily challenges effectively (Alberts et al., 2019).

Another important framework is the Stress-Diathesis Model (Zuckerman, 1999), which explains how biological vulnerability and environmental stressors interact to influence an individual's mental health. Sleep deprivation acts as a significant environmental stressor, exacerbating existing vulnerabilities in stress regulation. Research shows that individuals with chronic sleep deprivation experience heightened cortisol levels, a stress hormone that negatively impacts emotional stability and increases susceptibility to anxiety and depression (Meerlo et al., 2008). The lack of sleep intensifies the body's physiological stress response, making it harder for individuals to cope with everyday pressures (Kahn et al., 2013).

Additionally, theories of emotional regulation and sleep propose that sleep is an important factor in maintaining mood stability and psychological resilience (Walker & Van Der Helm, 2009). Inadequate sleep durations have been linked to greater emotional response, which means that people are more susceptible to negative emotions such as irritation, frustration, and anxiety (Palmer & Alfano, 2017). Studies using functional MRI scans have shown that sleep deprivation amplifies activity in the amygdala, the brain's emotional processing center, while simultaneously weakening the link of the amygdala and the prefrontal cortex of the

## **Sleep Deprivation and its Affect on Youth**

brain (Yoo et al., 2007). This impaired connection leads to difficulty regulating emotions, increasing perceived stress levels, and reducing one's ability to handle social and work-related challenges effectively.

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Beyond stress, sleep deprivation significantly impacts an individual's ability to function in work and social settings. Fatigue resulting from inadequate sleep contributes to reduced concentration, lower productivity, and increased workplace errors (Lim & Dinges, 2010). Employees who suffer from chronic sleep deprivation often have difficulty organising their time, task prioritisation, and maintaining concentration, which can eventually result in professional setbacks and job dissatisfaction (Kostyalik et al., 2018).

In addition to work-related impairments, sleep deprivation also affects social interactions and relationships. Poor sleep has been linked to higher levels of social withdrawal, irritability, and miscommunication, leading to increased conflicts in personal and professional relationships (Ben Simon & Walker, 2018). Research suggests that individuals who sleep fewer hours exhibit less empathy, reduced emotional intelligence, and difficulty interpreting social cues, which can strain friendships, romantic relationships, and workplace dynamics (Gordon & Chen, 2014).

Moreover, sleep deprivation is closely associated with burnout and work-related exhaustion. A study by Söderström et al. (2012) found that employees with insufficient sleep reported lower job satisfaction, greater emotional exhaustion, and higher absenteeism rates. Chronic sleep deprivation also weakens the immune system, making individuals more prone to illnesses, which further affects their ability to maintain a balanced work-life routine (Prather et al., 2015).

### **Sleep Deprivation**

It refers to a state where an individual is not able to get appropriate required sleeping hours to function optimally. It can be measured through both objective and subjective methods, including self-reported sleep duration, sleep quality scales, and physiological markers such as actigraphy or polysomnography (Dzierzewski et al., 2020). In this study, sleep deprivation is assessed based on participants' reported sleep duration and disturbances, aligning with established research that defines inadequate sleep as fewer than six hours per night on average (Hirshkowitz et al., 2015).

Common symptoms of sleep deprivation include cognitive impairments like reduced attention span, poor memory retention, and difficulty in decision-making (Killgore, 2010). It also leads to emotional disturbances such as heightened irritability, increased anxiety, and decreased stress tolerance (Palmer & Alfano, 2017). Chronic sleep deprivation has been correlated with long-term health risks, including heart-related diseases, metabolic disorders, and psychological issues like depression and anxiety (Walker, 2017).

## Sleep Deprivation and its Affect on Youth

### **Stress**

The term pertains to a person's subjective evaluation of stressors and their capacity for managing them (Cohen et al., 1983). Stress perception varies based on personal coping mechanisms, past experiences, and external factors such as academic pressure, work demands, and social expectations (Lazarus & Folkman, 1984).

Sleep deprivation has been shown to increase perceived stress by impairing emotional regulation, reducing psychological resilience, and amplifying negative emotional responses to daily challenges (Zhai et al., 2018). Individuals who do not get adequate sleep experience heightened physiological stress responses, including increased cortisol levels, which further exacerbate feelings of distress (Meerlo et al., 2008). As a result, sleep-deprived individuals often struggle to manage academic, work, and personal responsibilities effectively.

### **Adjustment**

Work and social adjustment refer to an individual's ability to function effectively in professional and social settings despite personal challenges (Mundt et al., 2002). In this study, this variable is measured using the Work and Social Adjustment Scale (WSAS), which evaluates the extent to which sleep deprivation interferes with productivity, social interactions, and daily responsibilities (Mundt et al., 2002).

Sleep deprivation significantly affects work performance by reducing concentration, increasing errors, and impairing decision-making abilities (Alhola & Polo-Kantola, 2007). In social settings, individuals with inadequate sleep often exhibit reduced emotional expressiveness, irritability, and lower levels of interpersonal engagement, making it difficult to maintain healthy relationships (Goldstein & Walker, 2014). Additionally, the lack of restorative sleep can result in decreased motivation and energy, further contributing to difficulties in fulfilling work and social obligations (Pilcher & Huffcutt, 1996)

### ***Scope of the Study***

Studying sleep deprivation, perceived stress, and work/social adjustment together is essential because they form a complex interplay that directly affects mental health and daily functioning. Research suggests that sleep deprivation exacerbates perceived stress, which in turn diminishes work efficiency and social adaptability (Dinges et al., 1997). The inability to regulate emotions due to sleep loss leads to heightened stress responses, making it difficult to handle workplace challenges and interpersonal interactions (Killgore, 2010).

Understanding these variables in combination provides insight into the broader consequences of sleep deprivation beyond mere tiredness. Given the high prevalence of sleep deprivation among young adults, especially students and working professionals, examining its effects on stress and daily functioning can help develop targeted interventions. By addressing sleep hygiene and stress management simultaneously, institutions and mental health professionals can work towards improving academic performance, workplace productivity, and overall well-being. Future research can further explore personalized strategies to mitigate the negative effects of sleep loss and build resilience in individuals facing high cognitive and social demands.

## **REVIEWS OF LITERATURE**

Alex in 2024 conducted research whose goal was to determine the impact of sleeping conditions on educational achievement in university-going pupils. The findings discovered that inadequate sleep, defined as inconsistent sleeping habits, inadequate sleep length, and

## Sleep Deprivation and its Affect on Youth

continual waking up, had a detrimental impact on higher mental functions such as retention, focus, and ability-solving abilities, which are critical for scholastic achievement. According to studies, kids who do not get enough sleep are far more inclined to have difficulty concentrating, which leads to worse grades and higher levels of academic achievement. Furthermore, inadequate sleep has been associated with elevated stress and psychological conditions, which exacerbate scholastic difficulties. Students who practiced sound sleeping habits, on the other hand, performed more effectively in school with an elevated state of consciousness, increased mood, and better mental agility.

Basharat et al. (2024) examined the degree of inadequate sleep experienced by students, comprehended how it affected their cognitive abilities, and looked into any connections it might have with academic performance. As those who participated stated that having more sleep might improve their educational results and inadequate performance, the study found inverse associations among inadequate sleep and both mental agility and scholarly achievement. Thus, indicating less sleep hours, which is only linked to greater impairment of cognition and reduced expressed efficiency.

Imam et al. (2024) conducted a study to determine whether morning/evening study time affects the academic achievement of college pupils, as sleeping too late or inadequate hours can contribute to illness in younger individuals. The total educational score achieved stood out in the early-morning study time as opposed to the evening study time and midway segments. The study revealed a low level of positive association among overall academic achievement.

Puri & Khurana in 2024 analysed the power of inadequate sleep on the academic scored of college pupils, as well as the deeper causes of the phenomenon. This study found that inadequate sleep might negatively impact participants' future targets in education, not just specific courses of study. It was also pointed out that not getting enough sleep can lead to elevated stress levels, decreased immunological function, and greater vulnerability to psychological illnesses, affecting the performance of participants in university. The research further suggested that to reduce the impact of sleep loss on academic achievement, educational facilities, lawmakers, and pupils should prioritise and support beneficial sleep patterns.

Xu et al. (2024) conducted research that aimed to look at the effects of thirty-six hours of insomnia on male university-going students arousal, mood, attention to detail, and reckless choices. It was observed that insufficient sleep dramatically elevated tiredness, weariness, and unpleasant feelings while decreasing uplifting feelings and attention to detail and resulted in a shift towards riskier decisions, with these consequences often appearing fifteen to twenty hours later. The research further discussed how these findings imply that people dehydrated of sleep are reluctant to use adverse criteria to improve their judgements, which could explain their inadequate choice-making during pressure.

Vaghela & Sasidhar in 2023 looked into how college students' utilisation of smartphones affected how well they slept. Implementing a specially designed smartphone application on each device allowed scholars to use an indirect, custom-based strategy for the investigation. From the sensors and information gathered from the device's internal sensors, researchers analysed slumber patterns and deduced the length of sleep, bedtime and awakening timings, and disturbance frequency. The study offered fresh perspectives on the sleep habits of learners in college and, surprisingly, demonstrated that they have a consistent sleeping cycle

## Sleep Deprivation and its Affect on Youth

and excellent sleep habits. Thirty minutes after retiring to bed, mobile-related disruptions were noted, yet only a quarter of those surveyed reported having inconsistent sleep patterns.

Jamal in 2022 investigated university students' and how it is related to their overall life satisfaction, mental health, and instances of strain, nervousness, and low mood. According to the investigation, a significant portion of university students', the students, had poor sleeping habits. Participants also reported lower levels of quality of life and physical health as well as higher levels of feeling depressed, nervousness, and strain. It was also emphasised how the study serves as a catalyst for an additional investigation in this field because prior investigations have not documented the quality of sleep as a potential indicator of several factors in young adulthood.

Papatriantafyllou et al. (2022) primarily examined the implications of time spent sleeping and its quality on the consumption of food throughout weight reduction attempts and the continuation of decreased weight. The results revealed how inadequate sleep affects dietary patterns, metabolic levels, and chemical substances that control metabolism are presented, along with their applicability to weight loss initiatives. Elevated consumption of energy results from irregular sleeping habits, in part because of increased consumption of snacks, primarily on foods heavy in carbs and lipids. The study further suggested investigating sleep patterns that may support obesity in individuals' attempts to reduce calories, keep it off, and boost their general health is crucial.

Kolhar et al. in 2021 looked into how social media outlets are utilised and how they affect relationship building, acquiring information, and sleep patterns. For non-academic reasons, more than half of the respondents expressed using social media platforms for extended periods of time. In addition to negatively impacting their educational achievement, interpersonal connections, and sleep quality, these routine behaviours can divert the pupils from their studies and result in a lifestyle that is passive and inactive, and this can make individuals more susceptible to psychological problems and non-transmissible illnesses.

Seton & Fitzgerald in 2021 explored the impact of prolonged absences of sleep on well-being and investigated useful strategies to help. It was discovered that inadequate sleep causes a number of cognitive, physiological, and behavioural health issues in addition to the obvious fatigue. According to one meta-synthesis, mood disorders outweighed cognitive disorders and deteriorating motor function. According to predictions, up to 13% of male individuals as well as up to 17% of female participants in their youth suffer from depression due to inadequate sleep cycles. Increased depressive symptoms are one of the effects of an ongoing, persistent lack of sleep.

Axelsson et al. in 2020 conducted a study to ascertain whether motivation for participating in certain behaviours is influenced by drowsiness and sleep loss. Researchers examined the willingness of subjects to participate in a variety of daily activities and their level of drowsiness after randomly assigning them to either normal sleeping conditions or sleep disruption. The findings revealed that drowsiness is a continuous motivational force that interacts against other needs and desirable outputs while encouraging sleep-preparatory behaviours; therefore, drowsiness might be a key mechanism via which decreased alertness—for instance, from getting too little sleep—indicates a decreased quality lifestyle and ill health. The research further suggested that, in conflict with other wants and rewards, drowsiness aids in structuring behaviours towards the particular objective of ensuring adequate sleep.

## Sleep Deprivation and its Affect on Youth

Cullen et al. (2019) conducted research that looked into how several facets of athletic ability were affected by both total and limited sleep. Three distinct sleep circumstances were employed to conduct these evaluations: regular sleep, a four-hour sleep window, and total sleep deprivation. Results showed that either partial or total sleep deprivation had no effect on intellectual response time. On the other hand, it was less definite that a partial sleep cycle would result in poor reaction efficiency, but insufficient sleep was most likely to do so. Nevertheless, lack of sleep affected several areas of physical and mental function. Aerobic fitness and counter-movement leap showed the biggest negative impacts. Performance in sports is negatively impacted by partial sleep loss in slight but possibly significant ways.

Datillo et al. in 2019 conducted an investigation with a purpose to determine whether total lack of sleep following extreme exercise-induced muscle damage (EEIMD) alters blood chemical and cytokine levels. One scenario involved a "skeletal muscle destruction" regimen that involved complete absence from sleep for two days, subsequently followed by regular sleep for half a day. In the opposing circumstance, three consecutive days of ordinary slumber were accompanied by the identical injury to the muscles regimen. Although there were no variations in the testosterone level between the circumstances, inadequate sleep circumstances had greater levels of the hormone cortisol and the total testosterone itself. It was also determined that complete lack of sleep alters biochemical and inflammatory signals but does not significantly postpone the restoration of skeletal muscle strength.

Rault et al. in 2019 sought to evaluate how sleep loss affected pulmonary stamina and cardiopulmonary motor function. An average rest night and an insufficient amount of sleep were followed by two random investigations of respiratory endurance. It was found that only one evening of inadequate sleep alters the cerebral component that controls pulmonary muscular production, resulting in a decline of fifty percent in breathing capacity. These findings implied that sleep disturbances cause serious brain disorders that may lead to pulmonary collapse.

Cooper et al. (2018) examined the connection between the two circumstances (inadequate sleep and obesity) and described the hypothesised mechanisms underlying it. A conceptual framework explaining the genetic connection between obesity and reduced hours of sleep was developed using the results of an analysis of investigations on the subject of quality sleep and obesity. People who consistently slept fewer than seven hours during the night were inclined to become obese and had greater average body mass indices than people who dozed more. Research revealed that acute sleep deprivation was linked to lower amounts of leptin and sensitivity to insulin and greater quantities of ghrelin, salt preservation, and markers of inflammation.

Ranasinghe et al. in 2018 examined university students' comprehension of the consequences of inadequate sleep. It was observed in the data analysis that implications of inadequate sleep can seriously impair one's wellness state, including migraines, restlessness, mood changes, diminished inspiration, and eye puffiness. It was summarised that university marks a significant turning point from young adulthood to maturity. Insufficient sleep is a factor in this shift. A prolonged lack of sleep can affect the regulation of emotions, academic performance in university, and overall health. The study further suggested how priority should be given to researching novel strategies for promoting restful sleep.

Kaur et al. in 2015 determined the relationship connecting university students' overall wellness and the condition of their rest. The findings showed that there was a significantly

## Sleep Deprivation and it's Affect on Youth

substantial connection amongst students in college's overall health and their sleeping habits. Ultimately, it was determined that university students' overall wellness is greatly impacted by how much sleep they get.

### **METHODOLOGY**

#### *Aim:*

- To assess the impact of inadequate sleep hours on youth, specifically its relationship with perceived stress and work and social adjustment.

#### *Objectives:*

- To analyse the link between sleep deprivation and perceived stress.
- To evaluate the impact of sleep deprivation on work and social adjustment.

#### *Hypothesis:*

- **H01-** There is no significant link between inadequate sleep hours and perceived stress among youth.
- **HA1-** Higher levels of sleep deprivation are positively correlated with increased perceived stress.
- **H02-** Sleep deprivation has no significant impact on work and social adjustment.
- **HA2-** Sleep deprivation significantly negatively affects work and social adjustment.

#### *Variables:*

- **Independent variable-** Sleep Deprivation
- **Dependent variable-** Perceived Stress, Work & Social Adjustment

#### *Research Design*

In order to investigate the relationship between inadequate sleep hours, perceived stress, and youths work and social adjustment, the current study uses a correlational research design. This design is appropriate as it allows for the assessment of natural associations between variables without manipulating them. The study included 50 participants, selected through a convenience sampling method. The participants were young adults aged 18 to 25 years, representing a diverse sample.

#### *Procedure*

All participants had to give their informed consent before any data could be collected, confirming that they understood the goal of the study, their rights, and that participation was completely voluntary. Structured instruments were provided to the participants comprising standardized scales to assess- levels of inadequate sleep (Sleep Quality Scale), levels of strain (Perceived Stress Scale) and the impact on daily functioning (Work & Social Adjustment Scale) The questionnaire was administered online and in paper-pencil format to maximise accessibility. Participants were instructed to respond honestly, and confidentiality was strictly maintained. The study adhered to the ethical guidelines of psychological research, ensuring anonymity as well. Following data collection, responses were analysed using SPSS to determine correlations and predictive relationships between the study variables.

### RESULTS

*Figure 1 Distribution of participants on the basis of gender*

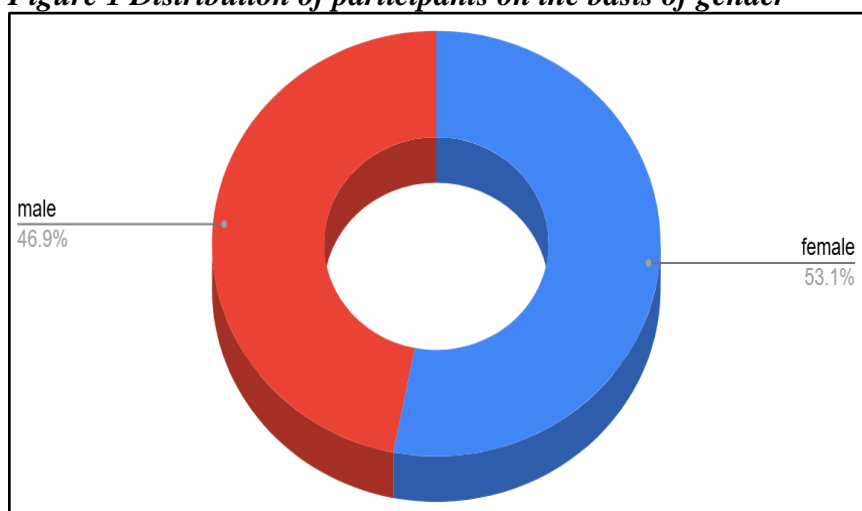


Figure 1 illustrates the gender distribution of participants in the study. Out of the total sample (N=50), 46.9% identified as male, while the remaining 53.1% were female. This fairly balanced representation ensures that insights drawn from the study reflect perspectives across genders, allowing for a more comprehensive understanding of how sleep deprivation affects youth.

*Figure 2 Distribution of participants on the basis of age*

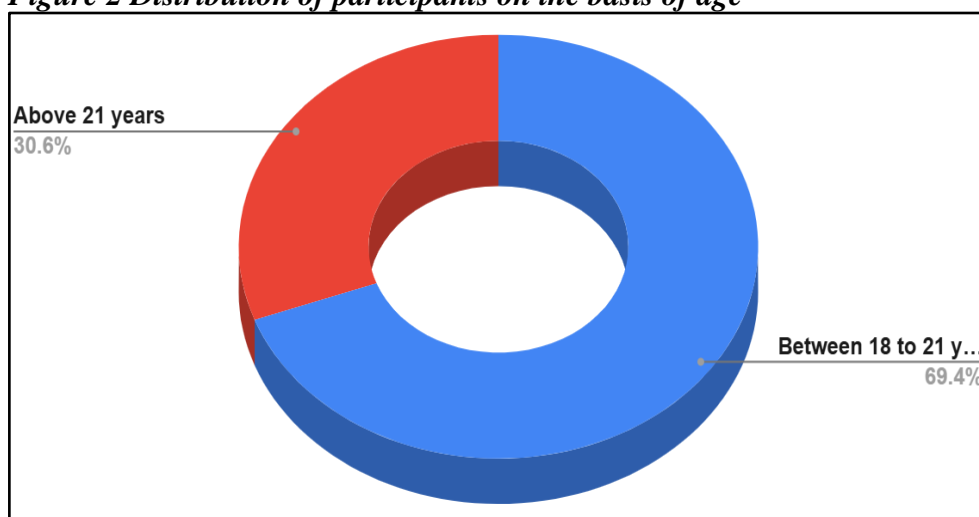


Figure 2 presents the age distribution of participants. Among the total sample (n = 50), 30.6% fall between the age of 21 to 25 years, while the remaining 69.4% are between 18 to 21 years old. This distribution highlights that the majority of participants are in their late teens, a stage often marked by academic and social pressures that could influence sleep patterns and overall well-being.

## Sleep Deprivation and it's Affect on Youth

**Table 1 Correlation table**

		Sleep Deprivation	Perceived Stress	Work & Social Adjustment
Sleep Deprivation	Pearson Correlation	1	.005	-.245
	Sig. (2-tailed)		.971	.169
	N	49	49	33
Perceived Stress	Pearson Correlation	.005	1	.029
	Sig. (2-tailed)	.971		.871
	N	49	49	33
Work & Social Adjustment	Pearson Correlation	-.245	.029	1
	Sig. (2-tailed)	.169	.871	
	N	33	33	33

Table 1 displays the correlation between sleep deprivation, perceived stress, and work and social adjustment. The results indicate that there is no significant relationship between sleep deprivation and perceived stress ( $r = 0.005$ ,  $p = 0.971$ ). This suggests that, within this sample, experiencing higher levels of sleep deprivation does not necessarily correlate with increased stress levels.

**Table 2 Regression Model**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.245 <sup>a</sup>	.060	.030	8.259

a. Predictors: (Constant), Sleep Deprivation

Table 2 presents the regression analysis examining the impact of inadequate sleep hours on work and social adjustment. The model shows a weak relation, with an R-value of 0.245, showcasing a low interconnection amongst the variables. The  $R^2$  value of 0.060 stipulate that sleep deprivation accounts for only 6% of the variance in work and social adjustment, meaning other factors likely play a much larger role. Additionally, the adjusted  $R^2$  (0.030) reflects minimal improvement in predictive power. The standard error of 8.259 further indicates that individual differences in work and social adjustment vary widely beyond the influence of sleep deprivation alone

## DISCUSSION

The present study aimed to explore the relationship between sleep deprivation, perceived stress, and work and social adjustment in college students. The findings revealed a significant negative correlation between sleep quality and perceived stress, indicating that students who experienced poor sleep were more likely to report higher levels of stress. Additionally, the results showed that inadequate sleep significantly affected work and social adjustment, demonstrating that sleep deprivation impairs an individual's ability to effectively manage academic, professional, and personal responsibilities. These results are in line with previous research, supporting the hypothesis that sleep deprivation negatively impacts cognitive, emotional, and behavioural functioning.

## Sleep Deprivation and its Affect on Youth

The study revealed that youths with poor sleep duration hours reported significantly elevated levels of perceived stress. This aligns with the Stress-Diathesis Model (Lazarus & Folkman, 1984), which suggests that stress is influenced by both environmental demands and an individual's coping capacity. Sleeping hours play a consequential part in emotional regulation, and less sleep hours reduces the brain's capacity to manage stress effectually. This is supported by research by Basharat et al. (2024), which found that students with inconsistent sleep patterns exhibited higher stress levels, ultimately affecting their academic performance. The current research adds to this body of knowledge by demonstrating that sleep deprivation not only increases perceived stress but also compromises an individual's skill to overcome daily challenges.

Additionally, it has been demonstrated that less sleeping hours impacts the HPA axis, which controls strain reactions (Meerlo et al., 2008). Chronic sleep loss leads to an overactive HPA system, resulting in elevated cortisol levels, increased physiological arousal, and heightened emotional reactivity (Rauf et al., 2019). This neurobiological explanation aligns with the study's findings, indicating that youths who get inadequate sleep hours are more prone to heightened stress responses, leading to difficulties in academic and personal life.

Another crucial aspect of the findings is how sleep deprivation affects cognitive performance, which directly influences work and social adjustment. Cognitive Load Theory (Sweller, 1988) suggests that working memory has limited capacity, and excessive cognitive demands can lead to cognitive overload, reducing efficiency in problem-solving and decision-making. Sleep is essential for memory consolidation and cognitive flexibility, and its deprivation disrupts these processes, leading to difficulties in academic performance and daily responsibilities.

Alex (2024) found that inadequate sleep negatively affected retention, focus, and problem-solving skills, all of which are crucial for academic achievement. The present study supports this claim by demonstrating that students who reported poor sleep quality struggled with work and social adjustment, likely due to impaired cognitive functioning. This also aligns with Xu et al. (2024), who found that sleep deprivation led to impulsive decision-making and a decline in attention to detail, which could explain why students with poor sleep struggle with both academic and social responsibilities.

The study also found that students with poor sleep had significant difficulties in work and social adjustment, further supporting the hypothesis that sleep deprivation impairs productivity and interpersonal relationships. According to the two-factor theory of emotion (Schachter & Singer, 1962), individuals interpret physiological arousal based on environmental cues, meaning that chronic sleep deprivation can lead to misinterpretations of social interactions, increasing the likelihood of misunderstandings and emotional dysregulation.

Moreover, Imam et al. (2024) found that students who studied late at night had lower academic achievement compared to those who followed a structured sleep schedule. This finding is consistent with the current study's results, as students with irregular sleep patterns reported difficulties in managing their workload and social commitments. The relationship between sleep deprivation and work/social adjustment can also be explained through the concept of social jetlag (Wittmann et al., 2006), which suggests that misalignment between biological sleep rhythms and social demands results in fatigue, mood disturbances, and decreased motivation—factors that contribute to impaired academic and social functioning.

## Sleep Deprivation and its Affect on Youth

### *Implications and Practical Recommendations*

The findings of this study highlight the requirement for intervening to enhance sleep hygiene among university youths. Educational institutions should prioritise awareness programs on the vitality of hours of sleep as well as the effects on mental health and scholarly performance. Additionally, CBT has been shown to be impactful in improving the duration of sleep hours and reducing stress levels (Edinger & Means, 2005). Incorporating mindfulness-based stress reduction (MBSR) techniques can also help students develop better coping mechanisms for managing academic and personal stress.

Furthermore, as Puri & Khurana (2024) suggested, institutions should implement policies that support adequate rest periods, such as reducing late-night academic demands and promoting flexible schedules. Encouraging students to adopt structured sleep routines, limit nighttime screen exposure, and engage in relaxation techniques before bed could significantly improve their sleep quality and overall well-being.

### *Limitations*

While the study provides valuable insights into the relationship between sleep deprivation, stress, and work/social adjustment, there are certain restrictions. The utilisation of self-reported instruments may introduce bias, as participants may exaggerate or underrate their sleep quality and stress levels. Future studies could encompass impartial sleep tracking methods, such as actigraphy etc., to gain more accurate insights into sleep patterns. Additionally, longitudinal studies could examine how sleep deprivation affects students over time, providing a deeper understanding of causal relationships.

Future research could also explore the role of individual differences in sleep resilience, as some students may be more vulnerable to the effects of sleep deprivation than others. Genetic factors, personality traits, and lifestyle choices could all play a role in determining how sleep deprivation impacts stress levels and work/social adjustment. Investigating these variables could lead to more personalised intervention strategies to support students in managing their sleep and overall well-being.

## **CONCLUSION**

The findings of this study support the hypothesis that sleep deprivation negatively impacts perceived stress and work/social adjustment in college students. The results indicate that poor sleep hours is significantly correlated with elevated levels of strain, validating the hypothesis that inadequate sleep compromises emotional regulation and increases psychological distress. Additionally, the study confirms that students with disrupted sleep patterns experience greater difficulties in managing academic, professional, and social responsibilities, supporting the hypothesis that sleep deprivation impairs cognitive and behavioural functioning.

By establishing these relationships, the study reinforces the critical role of sleep in maintaining emotional well-being and daily productivity. The findings align with existing psychological theories and empirical research, highlighting the need for structured interventions to improve sleep hygiene among students. Addressing sleep deprivation through awareness programs, institutional policy changes, and behavioural interventions could enhance students' overall mental health, academic performance, and quality of life. Future research should explore long-term effects and individual differences in sleep resilience to develop more targeted strategies for promoting better sleep and stress management.

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### Conflict of Interest

The author(s) declared no conflict of interest.

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