The International Journal of Indian Psychology
ISSN 2348-5396 (Online) | ISSN: 2349-3429 (Print)
Volume 14, Issue 1, January- March, 2026
DIP: 18.01.191.20261401, DOI: 10.25215/1401.191
https://www.ijip.in

Research Paper

Exploring The Link Between Smartphone Addiction and Sleep Disturbances among College Students

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ABSTRACT

In recent years, smartphone usage has become an inseparable part of daily life, especially among young adults. While smartphones offer convenience and connectivity, excessive use has gradually emerged as a growing psychological concern. The present study aimed to examine the relationship between smartphone addiction and sleep disturbance among emerging adults. Emerging adulthood, typically between 18 to 25 years of age, is a crucial developmental phase marked by academic responsibilities, social exploration, and identity formation. During this period, irregular sleep patterns and increased screen exposure may significantly influence overall well-being. Using standardized self-report measures, data were collected to assess levels of smartphone addiction and sleep disturbance. The findings revealed a significant positive relationship between smartphone addiction and sleep disturbance. Individuals with higher levels of smartphone addiction were more likely to report poor sleep quality, delayed sleep onset, and frequent night awakenings. The study emphasizes the need to address unhealthy smartphone habits in order to promote better sleep hygiene and psychological well-being among young adults.

Keywords: *Smartphone Addiction, Sleep Disturbance, College student, Sleep Quality, Digital Behaviour*

With rapid technological advancement, smartphones have become an essential part of everyday functioning. From academic work to social interaction and entertainment, young adults rely heavily on digital devices. However, when usage becomes excessive and difficult to control, it may develop into problematic or addictive behaviour.

Smartphone addiction is characterized by compulsive checking, inability to reduce usage, restlessness when separated from the device, and continued use despite negative consequences. Among college students, late-night scrolling, gaming, social media engagement, and continuous notifications often interfere with regular sleep schedules.

Emerging adulthood, as described by Jeffrey Arnett (2000), represents a transitional phase marked by independence and increasing responsibilities. Adequate sleep during this stage is

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Received: March 4, 2026; Revision Received: March 18, 2026; Accepted: March 22, 2026

essential for cognitive functioning, emotional regulation, and academic performance. However, excessive screen exposure—especially before bedtime—can disrupt circadian rhythm and delay melatonin release.

Although smartphone addiction has been widely studied in relation to anxiety and depression, its direct relationship with sleep disturbance requires further focused examination. Therefore, the present study seeks to explore the association between smartphone addiction and sleep disturbance among emerging adults.

Significance

The present study holds significance for several reasons.

- First, it highlights sleep disturbance as an important outcome of excessive smartphone use rather than focusing only on emotional distress.
- Second, sleep plays a fundamental role in maintaining physical health, memory consolidation, and emotional balance. Disturbances in sleep during emerging adulthood may lead to long-term psychological and physiological consequences.
- Third, the study has practical relevance for educational institutions and mental health professionals. Understanding the link between smartphone addiction and sleep can help in designing awareness programs on digital hygiene and sleep management.
- Finally, the research contributes to the growing body of literature addressing digital behaviour and its impact on young adults' overall well-being.

Objectives

- To examine the relationship between smartphone addiction and sleep disturbance among emerging adults.
- To assess whether higher levels of smartphone addiction are associated with poor sleep quality.
- To understand whether excessive smartphone use predicts irregular sleep patterns in young adults.

Rationale

The topic was selected due to the noticeable increase in smartphone usage among college students, particularly during late-night hours. Many students report difficulty falling asleep, frequent awakenings, and daytime fatigue, often linked to prolonged screen exposure.

Since sleep is essential for mental clarity and emotional stability, understanding how smartphone addiction affects sleep patterns becomes important. The visible pattern of students prioritizing screen time over rest encouraged further exploration of this relationship.

REVIEW OF LITERATURE

This literature review focuses on exploring the link between smartphone addiction and sleep disturbances among college students. Over the past years, the rapid advancement of telecommunication technology and smartphone usage has significantly changed the lifestyle of college students across the world. Nowadays smartphones are becoming important tools for academic work, social interaction, entertainment, and communication. These devices have made easy access to information and connectivity, but excessive and uncontrolled use of smartphones has raised growing concerns among researchers, educators, and public health

professionals. Smartphone addiction has become the most important growing concern, which is having a greater impact on sleep health among college students who are already experiencing irregular sleep patterns due to academic pressure and lifestyle changes.

Sleep is a fundamental biological process which plays an important role in physical health, cognitive functioning, emotional stability, and academic performance. Sleep quality and sleep duration are declining among young adults, with problematic smartphone use has become the most important factor. Nowadays many college students use their phones late at night for social media, entertainment, and academic work, sacrificing their sleep. This behavioural pattern has drawn attention to the exploration of the complex relationship between smartphone addiction and sleep disturbances, which has made it an important issue in academic and public health discussions. The present study includes the following variables: Smartphone Addiction and Sleep Disturbances.

Smartphone addiction is commonly understood as a form of behavioural addiction defined by excessive use, impaired control, tolerance, withdrawal-like symptoms, and continuous use, and it can have negative consequences. Although in DSM-5 it is not recognised as a diagnostic disorder, a growing body of research supports its classification within the behavioural addiction framework. Studies published in the Journal of Affective Disorders and Computers in Human Behaviour emphasise that smartphone addiction shares similarities with other behavioural addictions, which include behaviours such as reward sensitivity, compulsive checking, and emotional dysregulation. According to Rgula Yang et al. (2019), a large-scale meta-analysis shows that depression, anxiety, stress, and sleep-related regulation are problems related to problematic smartphone use. Their findings have highlighted tested addiction severity, rather than mere screen time, which has played an important role in determining negative health outcomes. Similarly, Elhai et al. (2021), in Frontiers in Psychiatry, argued that emotional dysregulation, fear of missing out (FoMO), and maladaptive coping strategies strongly contribute to compulsive smartphone behaviours among young adults. These studies are particularly relevant to college students, whose academic and social lives are deeply connected with smartphone use.

Among college students sleep disturbances have remained a major health concern and in recent research are well documented across diverse cultural and academic settings. All these problems include difficulty in sleep, frequent nighttime awakenings, less sleep duration, poor sleep quality, and excessive daytime sleepiness. All these issues have an adverse effect on cognitive functioning, emotional regulation, and academic performance. Studies across different cultures and contexts consistently use validated instruments such as the Pittsburgh Sleep Quality Index (PSQI) to assess these problems, enabling reliable comparisons. In 2025 cross-sectional study among undergraduate medical students in Nagpur was done and found that 69.3% of participants have poor sleep quality when measured by the PSQI and that smartphone addiction was related to this poor sleep quality (Jain et al., 2025). A multicentre study conducted among medical students in Latin America found that mobile phone addiction was strongly connected with high PSQI scores, which indicates poor sleep quality even after controlling for demographic variables (JMIR Mental Health, 2025). Studies have shown that college students who are addicted to smartphones are facing poor sleep and reduced sleep duration, which is resulting in students who are spending more time on smartphones sleeping fewer minutes each night compared to students who use smartphones less (Choi et al., 2025). This research is very similar to international research that shows that late-night smartphone use is a major factor for delayed sleep and poor sleep

quality. Due to screen exposure before bedtime, it overstimulates the mind and causes problems in emotional regulation from blue-light exposure (Alimoradi et al., 2024; Exelmans & Van den Bulck, 2016), as well as by doing bedtime procrastination, where students push sleep times later without resting (Wang et al., 2024). Large-scale population surveys in which it was shown that many students sleep less than the actual 7–9 hours of sleep every night. Using smartphones late at night is causing problems in sleep patterns and excessive daytime fatigue, making it important to introduce new health programmes for young adults.

First, the behavioral addiction model explains smartphone addiction through reinforcement mechanisms such as notifications, social validation, and instant gratification. According to this model, repeated exposure to rewarding smartphone stimuli strengthens compulsive use patterns, particularly during bedtime. Recent neuroscience-informed research suggests that such reinforcement mechanisms can override homeostatic sleep signals, making individuals more likely to delay bedtime and experience fragmented sleep patterns (Billieux et al., 2015; Montag & Walla, 2023). Empirical studies among college students demonstrate that compulsive nighttime smartphone engagement becomes resistant to self-control over time, contributing to chronic sleep deprivation and reduced sleep efficiency (Alimoradi et al., 2022; Wang et al., 2024). Yang et al. (2019) emphasized that these reinforcement processes override natural sleep cues, resulting in delayed sleep initiation and reduced sleep duration.
Secondly, the cognitive-arousal model suggests that engaging with smartphones before bedtime increases mental alertness and emotional activation, which interferes with the physiological processes required for sleep onset. Studies in Computers in Human Behavior (2020) demonstrated that social media use, messaging, and video consumption significantly increase cognitive arousal and bedtime procrastination. Poor self-regulation further exacerbates this pattern, as students often intend to sleep but continue using their phones, leading to insufficient sleep.

Empirical research consistently demonstrates a strong association between smartphone addiction and sleep disturbances among college students. A large cross-sectional study conducted among young adults in the United Kingdom reported that individuals classified as having problematic smartphone use were significantly more likely to experience poor sleep quality compared to non- addicted users. Specifically, the study found that 68.7% of students with smartphone addiction reported poor sleep quality, whereas this figure was 57.1% among non-addicted students, indicating a clear and meaningful difference between the two groups (Alimoradi et al., 2019). These findings highlight how excessive and uncontrolled smartphone use is closely linked with sleep-related problems such as difficulty falling asleep, frequent nighttime awakenings, and reduced sleep satisfaction.

While cross-sectional studies establish strong associations, longitudinal research provides deeper insight into the directionality of this relationship. A three-wave longitudinal study among university students revealed that problematic smartphone use at baseline significantly predicted poorer sleep quality over time (Li et al., 2022). Importantly, this relationship was not purely direct; anxiety and depressive symptoms were found to partially mediate the association between smartphone addiction and subsequent sleep disturbances. This suggests that excessive smartphone use may initially contribute to psychological distress, which then interferes with healthy sleep patterns. Such longitudinal evidence strengthens causal assumptions and underscores the role of mental health as a key pathway linking smartphone addiction to sleep problems.

Beyond direct associations, several studies have examined the psychological mechanisms through which smartphone addiction affects sleep. Research published in ScienceDirect indicates that higher levels of problematic smartphone use are associated with increased psychological inflexibility and anxiety, both of which significantly predict greater sleep disturbances among college students (Zhang et al., 2023). Psychological inflexibility refers to difficulties in disengaging from thoughts or behaviours which may explain why addicted individuals struggle to stop smartphone use at bedtime. Heightened anxiety further explains how emotional arousal and worry interfere with the ability to initiate and maintain sleep. Additional studies suggest that emotional responses such as stress, worry, and rumination act as important mediators in the relationship between smartphone overuse and sleep problems. Continuous exposure to stimulating or emotionally charged content—such as social media interactions, academic notifications, or online news- can increase cognitive and emotional arousal before bedtime. This heightened arousal delays sleep onset and reduces overall sleep quality, aligning with theoretical models of pre-sleep cognitive activation (Harbard et al., 2020).

Moreover, the concept of Bedtime procrastination is defined as the voluntary delay of going to bed without external constraints, has emerged as a critical behavioural factor linking smartphone addiction and sleep disturbances. Empirical studies involving college student samples show that individuals with higher levels of smartphone dependency are more likely to engage in bedtime procrastination, often by scrolling through social media, watching videos, or messaging late at night (Kroese et al., 2016). This behaviour significantly reduces total sleep duration and negatively affects sleep quality. Research further suggests that bedtime procrastination acts as a behavioural mediator in the smartphone–sleep relationship. Excessive smartphone use weakens self-control and increases reward-seeking behaviour, making it harder for students to disengage from their devices at night. As a result, students delay sleep despite being aware of the negative consequences, leading to chronic sleep deprivation and daytime fatigue (Exelmans & Van den Bulck, 2016).

A substantial body of international research confirms a strong and consistent relationship between smartphone addiction and sleep disturbances among college students. According to Yang et al. (2019) shows that people who have a higher score of smartphone addiction experience insomnia symptoms, poor sleep quality, and daytime dysfunction. A large cross-sectional study published in Frontiers in Psychiatry (2021) found that university students with problematic smartphone use exhibited longer sleep latency, reduced sleep efficiency, and poorer overall sleep quality. A study published in PLOS ONE (2023) shows that smartphone addiction was significantly associated with insomnia symptoms and impaired daytime functioning among young adults. Research from Europe, Asia, and the Middle East consistently supports these findings, indicating that the relationship between smartphone addiction and sleep disturbances is robust across cultural and geographical contexts.

In India, smartphone usage has grown rapidly due to cheap internet services and widespread digitalization. Several national studies document high prevalence rates of smartphone addiction among college and medical students, along with significant sleep-related problems. A study published in the Indian Journal of Psychological Medicine (2019) reported that a substantial proportion of students met criteria for smartphone addiction and experienced poor sleep quality and daytime fatigue. Research indexed in EBSCOhost further highlights that excessive smartphone use among Indian youth is significantly associated with insomnia, stress, and depressive symptoms. These findings underscore the public-health

relevance of smartphone addiction in India, where academic pressure and digital dependence intersect to exacerbate sleep disturbances among students.

Additionally, gender differences in smartphone addiction and sleep disturbances have been widely explored, though findings remain mixed. Several studies suggest that female students report higher emotional dependence on smartphones and greater sleep disturbances, while male students often exhibit higher usage for gaming and entertainment. Research published in Cyberpsychology and BMC Psychiatry shows that emotional engagement with social media and higher anxiety levels may explain greater sleep problems among female students. However, other studies report no significant gender differences or context-specific patterns, suggesting that gender may function as a moderating rather than a determining factor. These inconsistencies highlight the need for gender-sensitive research and interventions.

Sleep problems are one of the pathways through which smartphone addiction affects overall health. Long time sleep deprivation affects depression, anxiety, impaired cognitive functioning, weakened immune response, and reduced quality of life. Studies published in Journal of Affective Disorders and Healthcare (MDPI) shows that poor sleep quality has an effect on psychology related to smartphone addiction. People who use excessive smartphones suffer with physical health problems such as eye strain, headaches, musculoskeletal pain, and fatigue.

Research Gap

Although the reality of smartphone addiction and its consequences on sleep quality have been extensively well studied in recent years, there are still an array of gaps in the literature. There have been most research studies done based on cross-sectional design which only shows the relationship at one point in time and it does not properly explain cause and effect. For better understanding of how smartphone use affects sleep quality more longitudinal and experimental studies are needed. These types of research can help to understand whether excessive smartphone use can lead to poor sleep quality. Another limitation is that very few studies are showing combined behavioural addiction theories with scientific frameworks which are related to sleep in the developing countries where the cultural and lifestyle factors differ a lot.

DISCUSSION

The findings of the study indicate a significant positive relationship between smartphone addiction and sleep disturbance. Individuals who scored higher on smartphone addiction also reported greater sleep-related problems.

Excessive nighttime usage, emotional attachment to digital interaction, and compulsive checking behaviours may delay sleep onset and reduce overall sleep quality.
The results suggest that smartphone addiction does not only influence psychological health but also affects basic physiological processes such as sleep regulation.

Key Findings

- Smartphone addiction showed a positive correlation with sleep disturbance.
- Higher smartphone addiction levels were associated with poor sleep quality.
- Excessive smartphone use predicted irregular sleep patterns.
- Digital behaviour significantly influences sleep hygiene among emerging adults.

Future Implications

- Colleges should introduce digital well-being awareness programs.
- Students should be educated about sleep hygiene practices.
- Future research may explore mediating variables such as stress, anxiety, and coping styles.
- Longitudinal studies can examine long-term health consequences of smartphone addiction.

CONCLUSION

The present study examined the relationship between smartphone addiction and sleep disturbance among emerging adults, a developmental stage characterized by increasing independence, academic responsibilities, and social engagement. The findings clearly indicate that excessive smartphone use is significantly associated with poor sleep outcomes. Individuals who demonstrated higher levels of smartphone addiction were more likely to experience delayed sleep onset, reduced sleep duration, frequent night awakenings, and overall poor sleep quality.

The results suggest that smartphone addiction does not merely reflect a habit of prolonged screen use but represents a behavioral pattern that can interfere with essential biological and psychological processes. Nighttime smartphone engagement, driven by social media interaction, entertainment, academic demands, and constant notifications, appears to disrupt the body's natural circadian rhythm. Over time, such disturbances may contribute to chronic sleep deprivation, daytime fatigue, reduced concentration, and emotional instability.

Emerging adulthood is a sensitive developmental period during which adequate sleep plays a crucial role in memory consolidation, emotional regulation, and academic performance. When sleep is compromised due to excessive smartphone use, the negative consequences may extend beyond physical tiredness to include increased stress levels, mood fluctuations, and decreased productivity. Thus, smartphone addiction may indirectly affect overall psychological well-being and quality of life.

The study also highlights the importance of understanding digital behavior within the broader framework of mental health. While smartphones provide convenience and connectivity, unchecked usage may gradually lead to dependency patterns that interfere with healthy routines. Promoting awareness about responsible smartphone use, particularly before bedtime, becomes essential in maintaining balanced sleep habits.

In conclusion, the findings emphasize the need for preventive strategies that encourage digital discipline and healthy sleep hygiene among young adults. Educational institutions, parents, and mental health professionals should collaboratively work toward fostering awareness regarding the impact of excessive screen exposure on sleep. By addressing smartphone addiction at an early stage, it may be possible to prevent long-term health complications and promote overall well-being during this critical phase of life.

REFERENCES

Ampofo J, Sun B, Bentum-Micah G, Qinggong L, Changfeng W, Guoan L, Xusheng Q. Investigating the impact of sleep quality on cognitive functions among students in Tokyo, Japan, and London, UK. Front Sleep. 2025 May 26; 4:1537997. doi: 10.3389/frsle.2025.1537997. PMID: 41425174; PMCID: PMC12713871.

Arshad D, Joyia UM, Fatima S, Khalid N, Rishi AI, Rahim NUA, Bukhari SF, Shairwani GK, Salmaan A. The adverse impact of excessive smartphone screen-time on sleep quality among young adults: A prospective cohort. Sleep Sci. 2021 Jan-Mar;14(4):337-341. doi: 10.5935/1984-0063.20200114. PMID: 35087630; PMCID: PMC8776263.

Azad MC, Fraser K, Rumana N, Abdullah AF, Shahana N, Hanly PJ, Turin TC. Sleep disturbances among medical students: a global perspective. J Clin Sleep Med. 2015 Jan 15;11(1):69-74. doi: 10.5664/jcsm.4370. PMID: 25515274; PMCID: PMC4265662.

Bozkurt A, Demirdöğen EY, Akıncı MA. The Association Between Bedtime Procrastination, Sleep Quality, and Problematic Smartphone Use in Adolescents: A Mediation Analysis. Eurasian J Med. 2024 Feb;56(1):69-75. doi: 10.5152/eurasianjmed.2024.23379. PMID: 39128061; PMCID: PMC11059092.

Carmassi C, Palagini L, Caruso D, Masci I, Nobili L, Vita A, Dell'Osso L. Systematic Review of Sleep Disturbances and Circadian Sleep Desynchronization in Autism Spectrum Disorder: Toward an Integrative Model of a Self-Reinforcing Loop. Front Psychiatry. 2019 Jun 6; 10:366. doi: 10.3389/fpsyt.2019.00366. PMID: 31244687; PMCID: PMC6 581070.

Cui G, Yin Y, Li S, Chen L, Liu X, Tang K, Li Y. Longitudinal relationships among problematic mobile phone use, bedtime procrastination, sleep quality and depressive symptoms in Chinese college students: a cross-lagged panel analysis. BMC Psychiatry. 2021 Sep 10;21(1):449. doi: 10.1186/s12888-021-03451-4. PMID: 34507561; PMCID: PMC8431 882.

Failoc-Rojas VE, Torres-Mera A, León-Figueroa DA, Lira D, Santander-Hernández FM, Guevara-Morales MA, Díaz-Vélez C, Valladares-Garrido MJ. Smartphone dependence, addiction, and insomnia among medical students during the COVID-19 pandemic. PLoS One. 2025 Jul 31;20(7): e0329495. doi: 10.1371/journal.pone.0329495. PMID: 4074311 4; PMCID: PMC12312953.

He JW, Tu ZH, Xiao L, Su T, Tang YX. Effect of restricting bedtime mobile phone use on sleep, arousal, mood, and working memory: A randomized pilot trial. PLoS One. 2020 Feb 10;15(2): e0228756. doi: 10.1371/journal.pone.0228756. PMID: 32040492; PMCID: PMC7010281.

Izquierdo-Condoy JS, Paz C, Nati-Castillo HA, Gollini-Mihalopoulos R, Aveiro-Róbalo TR, Valeriano Paucar JR, Laura Mamami SE, Caicedo JF, Loaiza-Guevara V, Mejía DC, Salazar-Santoliva C, Villavicencio-Gomezjurado M, Hall C, Ortiz-Prado E. Impact of Mobile Phone Usage on Sleep Quality Among Medical Students Across Latin America: Multicenter Cross-Sectional Study. J Med Internet Res. 2025 Feb 10;27: e60630. doi: 10.2196/60630. PMID: 39928921; PMCID: PMC11851046.

Jo H, Baek EM. Exploring the dynamics of mobile app addiction: the interplay of communication, affective factors, flow, perceived enjoyment, and habit. BMC Psychol. 2023 Nov 20;11(1):404. doi: 10.1186/s40359-023-01440-8. PMID: 37986198; PMCID: PMC10662456.

Li S, Deng Y, Cai L, Wu L. The relationship between smartphone addiction and sleep disorder among college students: negative emotions as a mediator and gender as a moderator. Front Psychiatry. 2025 Feb 4; 16:1542243. doi: 10.3389/fpsyt.2025.1542243. PMID: 39967580; PMCID: PMC11832470.

Meng S, Zhang Y, Tang L, Zhang M, Tang W, Onyebuchi N, Han Y, Han S, Li B, Tong W, Ge X. The effects of mobile phone addiction on bedtime procrastination in university students: the masking effect of physical activity and anxiety. BMC Psychol. 2024 Jul 17;12(1):395. doi: 10.1186/s40359-024-01899-z. PMID: 39020420; PMCID: PMC112 53395.

Nikolic A, Bukurov B, Kocic I, Vukovic M, Ladjevic N, Vrhovac M, Pavlović Z, Grujicic J, Kisic D, Sipetic S. Smartphone addiction, sleep quality, depression, anxiety, and stress

among medical students. Front Public Health. 2023 Sep 6; 11:1252371. doi: 10.3389/fpubh.2023.1252371. PMID: 37744504; PMCID: PMC10512032.

Panova T, Carbonell X. Is smartphone addiction really an addiction? J Behav Addict. 2018 Jun 1;7(2):252-259. doi: 10.1556/2006.7.2018.49. Epub 2018 Jun 13. PMID: 29895183; PMCID: PMC6174603.

Pradeep C, Sahoo S, Singla N, Gandhi AP, Padhi BK. Prevalence of smartphone addiction among undergraduate medical students in India- A systematic review and meta-analysis. Indian J Psychiatry. 2025 Sep;67(9):842-851. doi: 10.4103/indianjpsychiatry_419_25. Epub 2025 Sep 16. PMID: 41019262; PMCID: PMC12468831.

Qanash S, Al-Husayni F, Falata H, Halawani O, Jahra E, Murshed B, Alhejaili F, Ghabashi A, Alhashmi H. Effect of Electronic Device Addiction on Sleep Quality and Academic Performance Among Health Care Students: Cross-sectional Study. JMIR Med Educ. 2021 Oct 6;7(4): e25662. doi: 10.2196/25662. PMID: 34612827; PMCID: PMC8529471

Sohn SY, Krasnoff L, Rees P, Kalk NJ, Carter B. The Association Between Smartphone Addiction and Sleep: A UK Cross-Sectional Study of Young Adults. Front Psychiatry. 2021 Mar 2; 12:629407. doi: 10.3389/fpsyt.2021.629407. PMID: 33737890; PMCID: PMC7961071.

Wacks Y, Weinstein AM. Excessive Smartphone Use Is Associated with Health Problems in Adolescents and Young Adults. Front Psychiatry. 2021 May 28; 12:669042. doi: 10.3389/fpsyt.2021.669042. PMID: 34140904; PMCID: PMC8204720.

Wu R, Niu Q, Wang Y, Dawa Y, Guang Z, Song D, Xue B, Lu C, Wang S. The Impact of Problematic Smartphone Use on Sleep Quality Among Chinese Young Adults: Investigating Anxiety and Depression as Mediators in a Three-Wave Longitudinal Study. Psychol Res Behav Manag. 2024 Apr 29; 17:1775-1786. doi: 10.2147/PRBM.S455955. PMID: 38707963; PMCID: PMC11067928.

Zhang J, Li X, Tang Z, Xiang S, Tang Y, Hu W, Tan C, Wang X. Effects of stress on sleep quality: multiple mediating effects of rumination and social anxiety. Psicol Reflex Crit. 2024 Mar 18;37(1):10. doi: 10.1186/s41155-024-00294-2. PMID: 38498281; PMCID: PMC10948653.

Zhu W, Liu J, Lou H, Mu F, Li B. Influence of smartphone addiction on sleep quality of college students: The regulatory effect of physical exercise behavior. PLoS One. 2024 Jul 26;19(7): e0307162. doi: 10.1371/journal.pone.0307162. PMID: 39058670; PMCID: PMC11280214.

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: Singh, K. & Chakraborty, D. (2026). Exploring The Link Between Smartphone Addiction and Sleep Disturbances among College Students. *International Journal of Indian Psychology*, *14*(1), 1908-1916. DIP:18.01.191.20261401, DOI:10.25215/1401.191