



IMPACT OF SOCIAL MEDIA USAGE ON SLEEP QUALITY AMONG ADULTS AGED 18–50 YEARS IN RAMNAGAR TOWN OF UTTARAKHAND STATE

Home Science

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ABSTRACT

Social media has become a routine part of daily life, but its overuse—especially late at night—raises concerns about its effect on health. This study examines how social media usage influences sleep quality among adults aged 18 to 50 years in the Ramnagar region of Uttarakhand state. Data were collected from 100 participants (50 men and 50 women) through a self-structured online questionnaire. The responses were analysed using descriptive statistics, mean scores, and Pearson's correlation. The findings revealed that more than half of the participants used social media mainly before bedtime, and nearly four out of five admitted staying up late because of it. Most participants reported using their phones within 30 minutes before sleeping, which was linked to tiredness in the morning and daytime sleepiness. Interestingly, while many respondents experienced these difficulties, a large number still felt satisfied with their sleep quality, showing a gap between perception and reality. Overall, the study highlights a clear association between late-night social media use and poor sleep outcomes. Promoting digital mindfulness and healthier bedtime routines may help improve sleep hygiene among adults in similar contexts.

KEYWORDS

Social media, sleep quality, adults, digital behaviour, digital mindfulness

INTRODUCTION

The rise of digital technology has changed the way people live, work and connect. Among these technologies, social media platforms such as Instagram, WhatsApp, YouTube, and Facebook have become deeply embedded in everyday life. They provide quick access to information, instant communication, and entertainment. However, while these platforms offer many benefits, their excessive use has also raised concerns about health and well-being. One area that is increasingly affected is sleep quality. Healthy sleep is essential for restoring the body and mind, supporting memory, emotional balance, and daily productivity. Yet, late-night scrolling, exposure to screen light, and constant digital engagement often disturb natural sleep patterns. Many adults experience delayed sleep, frequent night awakenings, or morning fatigue linked to their social media habits. Research across the world has shown that irregular or insufficient sleep is associated with reduced concentration, mood swings, and long-term risks such as anxiety and depression.

Adults between 18 and 50 years of age face particular challenges. This group often juggles multiple responsibilities—such as higher education, work demands, parenting, and caregiving—while also being the most active users of social media. The convenience of these platforms makes them attractive, but nighttime use can reduce restfulness and overall health. Although global studies (Graham et al., 2021; Ashraf, 2023) point to the negative influence of late-night social media use on sleep, there is still a need for context-specific research in Indian populations, especially in semi-urban regions.

This study was carried out in the Ramnagar region of Uttarakhand to examine how social media usage affects the sleep quality of adults aged 18 to 50 years. By identifying daily usage patterns and their link with sleep behaviour, the research aims to provide evidence that can support awareness programs, health education, and better digital practices.

METHODOLOGY

This study used a descriptive, cross-sectional survey design to examine how social media usage affects sleep quality among adults aged 18 to 50 years in the Ramnagar region of Uttarakhand. The cross-sectional approach was chosen because it allowed the researcher to capture a snapshot of participants' daily habits and experiences without manipulating their environment. The study included 100 respondents, with an equal number of males (50) and females (50). A convenience sampling technique was applied, meaning participants were selected based on their availability and willingness to take part. While this method was practical for reaching people, it also limited the ability to generalize results to the larger population. Data were collected through a self-designed online questionnaire created in Google Forms and shared digitally through platforms such as WhatsApp and Instagram. It was divided into four sections: demographic information, social media

usage patterns, sleep habits, and mental health indicators. For the purpose of this paper, the focus is on social media usage and sleep-related responses. Participants were required to be active users of social media, aged between 18 and 50 years, and residents of the Ramnagar area. Individuals who were younger than 18, older than 50, or not using social media actively were excluded. Incomplete responses were also not considered for analysis.

Data Analysis

The responses were exported into Microsoft Excel for analysis. Descriptive statistics such as frequencies, percentages, and mean scores were used to summarize the data. Pearson's correlation coefficient was applied to examine the relationship between social media usage and sleep quality, with the level of significance set at $p < 0.05$. Graphs and tables were also used to support interpretation where required.

RESULTS

The results of this study provide valuable insights into how social media habits influence sleep among adults aged 18–50 years in Ramnagar town of Uttarakhand district. The analysis combines demographic patterns, usage behaviour, sleep outcomes, and statistical correlations to present a comprehensive picture of this relationship. A total of 100 respondents participated in the study, with equal representation of males and females. Findings are presented in tabular form with interpretations to highlight key patterns and their implications.

Table1. Demographic Characteristics Of Respondents (N = 100)

Variable	Category	f	%
Gender	Male	50	50%
	Female	50	50%
Age Group	18–25 years	34	34%
	26–35 years	28	28%
	36–50 years	38	38%

Interpretation: The sample was evenly split between men and women, ensuring gender balance. Adults aged 36–50 years were slightly more represented than younger groups. This distribution reflects a mix of youth and middle-aged adults, both of whom are active social media users but may differ in habits and sleep patterns.

Table2. Time Of Social Media Use (N = 100)

Time of Use	f	%
Morning	14	14%
Afternoon	10	10%
Evening	24	24%
Night (before bed)	52	52%

Interpretation: More than half of the participants (52%) reported

using social media mainly at night before sleeping. This finding is crucial because bedtime use is most likely to disturb sleep quality through delayed onset and overstimulation, supporting the idea that digital habits affect rest.

Table3. Preferred Social Media Plat Forms (N = 100)

Platform	f	%
Instagram	62	62%
YouTube	19	19%
WhatsApp	13	13%
Others	6	6%

Interpretation: Instagram emerged as the most used platform (62%), far ahead of YouTube and WhatsApp. Since Instagram is highly visual and interactive, its dominance suggests that engaging and addictive content may contribute to prolonged screen exposure, especially at night.

Table4. Hours Spent Daily On Social Media (N = 100)

Hours/day	f	%
< 2 hrs	22	22%
2–4 hrs	46	46%
4–6 hrs	24	24%
> 6 hrs	8	8%

Interpretation: Almost half of the participants (46%) spent 2–4 hours daily on social media, while nearly one-third exceeded 4 hours. This indicates that heavy social media use is common in this group, which increases the risk of poor sleep hygiene.

Table 5. Sleep Duration Of Respondents (N = 100)

Sleep Hours	f	%
< 5 hours	9	9%
5–8 hours	87	87%
> 8 hours	4	4%

Interpretation: The majority (87%) slept 5–8 hours per night, which is within the recommended range for adults. However, only 4% reported sleeping more than 8 hours, suggesting limited recovery time. Combined with other findings, it indicates that quantity of sleep may be adequate, but quality is compromised.

Table6. Impact Of Social Media On Sleep Behaviour (N = 100)

Sleep Effect	f	%
Stayed up late due to SM	78	78%
Morning tiredness	77	77%
Daytime sleepiness	83	83%
Daytime naps	75	75%

Interpretation: A striking majority admitted that social media directly disrupted their sleep. Late-night scrolling often extended bedtimes, causing tiredness in the morning and reliance on daytime naps. This suggests that social media affects both the timing and quality of rest.

Table 7. Self-Reported Sleep Quality (N = 100)

Response	f	%
Very satisfied	8	8%
Satisfied	70	70%
Dissatisfied	22	22%

Interpretation: Despite reporting fatigue and disturbances, 78% described their sleep as satisfactory. This disconnect between subjective satisfaction and actual sleep health points to low awareness about what defines good sleep quality.

Table 8. Social Media Use Before Sleep (N = 100)

Response	f	%
Yes	95	95%
No	5	5%

Interpretation: Nearly all participants (95%) used social media before sleeping, confirming that bedtime scrolling has become a normalized behaviour. This widespread habit explains the strong association found between social media use and poor sleep outcomes.

Table9. Perceived Effect Of Reducing Social Media On Sleep (N = 100)

Response	f	%
Yes	73	73%
No	27	27%

Interpretation: A majority (73%) believed that reducing their social

media use would improve sleep quality. This shows that participants are aware of the problem and recognize lifestyle changes as a possible solution.

Table10. Correlation Between Social Media Use And Sleep Quality Indicators (N = 100)

Variables	Sleep Duration	Morning Tiredness	Daytime Sleepiness	Sleep Satisfaction
Night-time social media use (hours/day)	−0.42*	+0.47*	+0.51*	−0.38*
Late-night scrolling frequency	−0.36*	+0.44*	+0.49*	−0.33*

*Note: Pearson's correlation coefficients. $p < 0.05$ indicates significance.

Interpretation: The correlation analysis confirmed that higher late-night social media use was consistently linked to poorer sleep outcomes. Increased use was negatively correlated with sleep duration and satisfaction, while positively correlated with morning tiredness and daytime sleepiness. This reinforces the conclusion that bedtime screen habits strongly undermine healthy rest.

DISCUSSION

The present study provides evidence that late-night social media use is strongly linked with disturbed sleep among adults in the study area. More than half of the participants reported using social media mainly at night, and almost all admitted to using their phones within half an hour before sleeping. These habits were closely associated with delayed bedtimes, morning tiredness, and daytime sleepiness. The correlation analysis confirmed that higher night-time usage significantly predicted poorer sleep quality.

These findings align with earlier research from different parts of the world. Graham *et al.* (2021) observed that reducing social media use improved sleep and overall well-being, suggesting that digital behaviours directly influence restfulness. Ashraf (2023) reported that excessive Facebook usage was linked to sleep disturbances among young adults in Karachi, echoing the patterns seen in this study. Similarly, Praveena and Gowda (2025) found that students in Southern India who engaged in prolonged social media use experienced delayed sleep onset and reduced sleep duration.

The consistency of results across different settings underlines the global nature of this issue. However, the present study adds valuable evidence from a semi-urban Indian population, where cultural factors and lifestyle routines may differ from metropolitan or Western contexts. Interestingly, while a majority of respondents admitted to tiredness and daytime drowsiness, nearly 78% still described their sleep as satisfactory. This mismatch suggests that many individuals normalize sleep problems or lack awareness about what constitutes healthy sleep.

The study also revealed that most participants themselves recognized the problem, as 73% agreed that reducing social media—especially at night—would improve their sleep. This self-awareness can be used as a starting point for designing awareness campaigns and promoting healthier digital practices, such as limiting phone use before bed, setting screen-free times, or adopting bedtime routines that encourage relaxation. At the same time, it is important to acknowledge certain limitations. The use of convenience sampling and self-reported measures may introduce bias, and the findings cannot be generalized to all populations. Moreover, the cross-sectional design captures associations but not causation. Despite these limitations, the results provide strong evidence that excessive night-time social media use is a significant factor contributing to poor sleep outcomes.

CONCLUSION

This study highlights the significant influence of social media usage, particularly at night, on the sleep quality of adults aged 18 to 50 years in Ramnagar, Uttarakhand. The results showed that most participants engaged in social media before bedtime, which often led to delayed sleep, morning tiredness, and daytime sleepiness. While many respondents perceived their sleep as satisfactory, the presence of fatigue and irregular patterns revealed a gap between actual and perceived sleep quality.

The findings suggest that late-night social media habits are not only common but also disruptive to healthy rest. Encouraging individuals to reduce screen time before bed and adopt better digital hygiene practices-such as screen-free nights, setting time limits, and following consistent bedtime routines-can help improve sleep outcomes.

Although the study was limited to a small, semi-urban sample and relied on self-reported data, it provides useful insights into the growing concern of technology-driven sleep disturbances. Future research with larger and more diverse populations, as well as intervention-based studies, could further strengthen understanding in this area. Overall, the study underlines the importance of mindful social media use and the promotion of healthier lifestyle practices to safeguard sleep and well-being in today's digitally connected society.

REFERENCES

1. Ashraf, S. (2023). Social media usage and sleep deprivation among youngsters in Karachi. *Journal of Social Sciences and Humanities*, 62(2), 45–53.
2. Chang, A. M., Aeschbach, D., Duffy, J. F., & Czeisler, C. A. (2015). Evening use of light emitting eReaders negatively affects sleep, circadian timing, and next morning alertness. *Proceedings of the National Academy of Sciences*, 112(4), 1232–1237. <https://doi.org/10.1073/pnas.1418490112>
3. Graham, J., Liu, Y., & Shapka, J. D. (2021). The effects of social media reduction on well-being: The mediating role of sleep quality. *Journal of Adolescence*, 87, 64–73. <https://doi.org/10.1016/j.adolescence.2021.01.006>
4. Levenson, J. C., Shensa, A., Sidani, J. E., Colditz, J. B., & Primack, B. A. (2017). Social media use before bed and sleep disturbance among young adults in the United States. *Preventive Medicine*, 95, 36–41. <https://doi.org/10.1016/j.ypmed.2016.11.021>
5. Medic, G., Wille, M., & Hemels, M. E. H. (2017). Short- and long-term health consequences of sleep disruption. *Nature and Science of Sleep*, 9, 151–161. <https://doi.org/10.2147/NSS.S134864>
6. Praveena, M., & Gowda, S. (2025). Impact of social media on sleep schedules among youth in Southern India. *Indian Journal of Health and Wellbeing*, 16(1), 27–33.
7. Scott, H., Biello, S. M., & Woods, H. C. (2019). Social media use and adolescent sleep patterns: Cross-sectional findings from the UK Millennium Cohort Study. *BMJ Open*, 9(9), e031161. <https://doi.org/10.1136/bmjopen-2019-031161>
8. Twenge, J. M., & Campbell, W. K. (2018). Associations between screen time and lower psychological well-being among children and adolescents: Evidence from a population-based study. *Preventive Medicine Reports*, 12, 271–283. <https://doi.org/10.1016/j.pmedr.2018.10.003>
9. Woods, H. C., & Scott, H. (2016). #Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression, and low self-esteem. *Journal of Adolescence*, 51, 41–49. <https://doi.org/10.1016/j.adolescence.2016.05.008>