



## Effects of Social Media Use, Sleep Quality, and Quality of Life: A Correlational Study

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**Abstract:** This study involves a qualitative, correlational research design to demonstrate the relationship between social media use, sleep quality and quality of life in young adults. Data was collected from a sample of 50 participants aged 18-25 years were distributed with online questionnaires, including Social Media Use Questionnaire (SMUQ), the Sleep Quality Scale (SQS) and the WHOQOL-BRIEF for Quality of Life. The study revealed a significantly positive correlation with social media use and sleep quality scores (indicating worse sleep), and significantly negative correlation between social media use and quality of life. Furthermore, higher scores on the sleep quality scale (indicating acute sleep problems) demonstrated a significant negative correlation with overall quality of life. The results highlighted that excessive social media engagement is strongly associated with disrupted sleep patterns and diminished well-being among young adults, emphasizing the need for targeted digital hygiene interventions.

**Keywords:** *Social Media Use, Sleep Quality, Quality of Life, Young Adults, Correlational Study*

### 1. Introduction

"The term 'social media use' includes browsing, content consumption and content creation. Not all behaviours carry equal psychological importance."

In the past decade, social media has become integrated into daily life, especially for young adults who rely on social platforms for communication, entertainment, and emotional

expression. Globally, over 5 billion individuals are active internet users, engaging daily in social networking activities that significantly impact their self-image and lifestyle. Despite the opportunities for connection these platforms offer, growing evidence suggests that uncontrolled social media use negatively affects overall well-being and life satisfaction. Parallel to the rise in digital consumption, there is a growing concern regarding the relationship between sleep quality and the overall quality of life, as young adults face a modern "sleep crisis" caused by excessive screen time and irregular schedules. An individual requires at least 7 to 9 hours of quality sleep for essential cognitive functioning, memory consolidation, and emotional regulation. Consequently, assessing the quality of life—a multidimensional concept encompassing physical health, mental well-being, and social connections—provides a comprehensive framework to understand the broader implications of these modern digital behaviors.

### **1.1 Social Media Use**

Addictive social media use is defined as problematic behavior marked by compulsivity, loss of control, and prolonged interaction in spite of unfavorable outcomes, consistent with broader behavioral addiction traits like tolerance and withdrawal.

Social media use is conceptually defined as a mobile or web-based platform where individuals or organizations communicate, create, share, and exchange information and ideas in virtual networks.

Habitual social media use describes an automatic, daily practice carried out without impairment, characterized by frequent platform checks and passive scrolling that happen without conscious thought.

## **2. Review of Literature**

A large-scale meta-analysis involving 34,441 participants across 40 empirical studies investigated the relationship between problematic social media use and sleep quality, revealing a significant overall association where higher levels of problematic use consistently predicted poorer sleep. The researchers identified that younger users are more susceptible to the negative sleep impacts than older individuals, highlighting the universal nature of this digital challenge. In a specific regional context, an investigation of 300 female university students revealed that while 97% utilized social media applications, an alarming 57% were classified as addicted. The consumption heavily disrupted normal sleep patterns, as 68% of the participants attributed their delayed bedtimes to platform usage, ultimately reducing restorative sleep and academic engagement. Additionally, a study of medical students assessed via the Bergen Social Media

Addiction Scale and the Pittsburgh Sleep Quality Index found a social media addiction prevalence of 17.7%. The findings indicated a significant positive correlation between addiction levels and poor sleep quality, notably exacerbated by using social media first thing in the morning and prolonged online hours.

### ***Sleep Quality and Quality of Life Operational Definitions***

Sleep quality is defined as an individual's subjective perception of restfulness, ease of falling and staying asleep, sleep duration, and daytime functioning. It encompasses a holistic assessment integrating nocturnal components, such as sleep maintenance and difficulty falling asleep, with daytime components, including restorative feelings and daytime sleepiness. Quality of Life (QoL) is defined as a broad, multifaceted concept reflecting an individual's overall perception of their position in life within the context of their culture, value systems, goals, expectations, and concerns. QoL is structurally conceptualized across four primary domains: physical health (energy, fatigue), psychological well-being (mood, self-esteem), social relationships (interpersonal interactions), and environmental context (safety, digital access).

## **2. Review of Literature**

The interconnections among quality of life, sleep quality, and academic functioning have been thoroughly examined in contemporary student populations. A study involving 410 university students indicated an interrelationship among these factors, revealing a continuous positive significant relationship between all sub-categories of quality of life and academic self-efficacy. Decreasing sleep quality was associated with lower academic self-efficacy, and both sleep quality and overall quality of life served as significant predictors of functional success. Furthermore, an online survey of 701 undergraduate healthcare students assessed perceived stress, anxiety, depression, and sleep quality. The researchers found that poor sleep quality was highly prevalent, affecting 80.3% of the cohort, and sleep quality scores were positively correlated with perceived psychological distress, indicating that greater anxiety and stress were inextricably linked to worse sleep outcomes. In a separate cross-sectional study of high school students, researchers utilized structural analysis to demonstrate that academic stress was linked to poorer sleep quality and lower subjective well-being, whereas better sleep quality was firmly associated with higher well-being and life satisfaction.

### **2.1 Rationale**

Despite extensive research on social media use and its effects on well-being, important gaps remain in understanding the correlational pathways through which digital behavior

influences overall quality of life. Existing findings frequently present these variables in isolation, and results are occasionally inconsistent, with some studies reporting harmful effects and others suggesting mixed outcomes. Furthermore, the majority of the available evidence is derived from Western populations, leaving uncertainty regarding how these direct associations operate within the unique socio-cultural context of Indian youth. India has experienced immense digital expansion, with internet access heavily concentrated among emerging adults facing competitive academic environments and shifting cultural norms. To address these research gaps, the present study proposes a focused examination of the direct correlational associations among social media use, sleep quality, and quality of life. By focusing on an Indian student population, this study aims to provide context-specific insights that may inform targeted interventions for healthier social media habits and enhanced sleep hygiene.

## **2.2 Objectives & Hypothesis**

### **Objectives**

To determine the relationship between social media use and sleep quality.

To determine the relationship between sleep quality and quality of life.

To determine the relationship between social media use and quality of life.

### **Hypotheses**

H1: Social media use will be significantly correlated with sleep quality.

H2: Social media use will be negatively associated with quality of life.

H3: Sleep quality will be significantly associated with quality of life.

## **3. Methodology**

### **3.1 Research Design**

The present research employed a quantitative, correlational research design to examine the interrelationship among social media use, Sleep quality, and Quality of life. Data was gathered using self-administered questionnaires distributed to eligible young adults to identify the direction and strength of associations between these three psychological variables.

### **3.2 Participants**

The sample size for this study consisted of  $N = 50$  college-going young adults and working young adults.

**Inclusion Criteria:** Participants were eligible if they were between 18 and 25 years of age, were literate and able to read and comprehend the English language, demonstrated willingness to participate voluntarily, provided informed consent, and actively accessed one or more social media platforms for at least one hour per day.

**Exclusion Criteria:** Participants were excluded if they had a diagnosed psychiatric illness, were currently undergoing therapy or psychiatric treatment, failed to meet the specific age range, did not use social media, or had any physical or mental condition that could interfere with participation.

### 3.3 Measures

**Social Media Use Questionnaire (SMUQ):** Developed by Xanidis & Brignell (2016), this is a 9-item self-report measure assessing problematic and excessive social media use across two dimensions: withdrawal and compulsion. Respondents indicated their agreement using a 5-point Likert scale (0 = Never, to 4 = Always). Higher scores suggest more problematic use, and the instrument maintains an acceptable internal consistency reliability.

**Sleep Quality Scale (SQS):** Developed by Yi, Shin, and Shin (2006), this 28-item self-report questionnaire measures sleep depth, ease of falling asleep, awakenings, and feeling refreshed. Items are rated on a 4-point Likert scale (0 = Rarely, to 3 = Almost Always). Total scores range from 0 to 84, with higher scores denoting more acute sleep problems.

**World Health Organization Quality of Life-BREF (WHOQOL-BREF):** Developed by the World Health Organization (1996), this is a 26-item scale measuring physical health, psychological health, social relationships, and environment. Responses utilize a five-point Likert scale, and higher scores indicate a better quality of life.

### 3.4 Procedure

The participants were informed about the purpose of the research, and the questionnaires were filled through Google forms. After obtaining ethical approval, participants meeting the inclusion criteria were invited through social media platforms and email utilizing purposive sampling. The survey link included an informed consent form ensuring confidentiality and standard demographic questions alongside the standardized psychometric scales. Each participant was thanked for their cooperation. Standardised psychological tests were administered to the participants.

## 4. Analysis of Data

### Results

Data were collected for a total sample of  $N = 50$  participants to generate descriptive statistics. For the correlational analysis, a refined subset of  $N = 40$  participants was analyzed to calculate the precise Pearson correlation coefficients among the key variables. Descriptive statistics (Mean and Standard Deviation) were computed for Social Media Use, Sleep Quality, and Quality of Life.

**Table 1.** *Descriptive Statistics (N = 50)*

| Variable | N         | M         | SD        |
|----------|-----------|-----------|-----------|
|          | Statistic | Statistic | Statistic |
| SMUQ     | 50        | 14.22     | 7.28      |
| SQS      | 50        | 36.08     | 11.93     |
| QOL      | 50        | 105.63    | 15.22     |
| Valid N  | 50        |           |           |

Note: The descriptive statistics showed that the mean social media use score was 14.22, sleep quality was 36.08, and quality of life was 105.63. The data distribution was evaluated to be within acceptable limits for parametric testing.

**Table 2.** *Pearson Correlation Analysis (N = 40)*

| Variable | Social Media Use Questionnaire (SMUQ) | Sleep Quality Scale (SQS) | Quality Of Life (QOL) |
|----------|---------------------------------------|---------------------------|-----------------------|
| SMUQ     | –                                     | –                         | –                     |
| SQS      | 0.46                                  | 0.69                      | –                     |
| QOL      | -0.44                                 | -0.48                     | –                     |

\*  $p < .05$ ,  $p < .01$

Results from the correlational analysis reveal a significant positive correlation between the Social Media Use Questionnaire (SMUQ) and the Sleep Quality Scale (SQS) ( $r = 0.46$ ,  $p < .01$ ). Because higher scores on the SQS indicate worse sleep quality, this mathematically positive correlation practically demonstrates that increased social media use is associated with diminished sleep quality. Furthermore, social media use is significantly negatively correlated with Quality of Life ( $r = -0.44$ ,  $p < .01$ ), indicating that heavier usage is linked to lower overall well-being. Finally, the SQS demonstrated a significant negative correlation with Quality of Life ( $r = -0.48$ ,  $p < .01$ ), confirming that acute sleep problems are highly associated with a reduced quality of life.

## 5. Discussion of Results

The primary objective of this study was to examine the direct correlational relationships between social media use, sleep quality, and quality of life among young adults. The findings robustly support the established hypotheses. The statistical analysis yielded a significant positive correlation ( $r = 0.46$ ) between social media use and SQS scores. Because the SQS measures acute sleep problems, this confirms that greater social media engagement correlates

with poorer sleep hygiene. This aligns closely with Cognitive Arousal Theory and Displacement Theory, which posit that prolonged exposure to stimulating online content activates the sympathetic nervous system and physically displaces the hours an individual would otherwise dedicate to resting. Furthermore, screen exposure emits blue wavelength light, suppressing melatonin secretion and delaying sleep onset.

Additionally, the results demonstrated a significant negative correlation between social media use and quality of life ( $r = -0.44$ ). This indicates that uncontrolled digital habits heavily detract from a young adult's physical health, psychological well-being, and academic productivity. This is corroborated by the review of literature; for instance, Bukecik and Adana (2025) explored the interplay of digital habits among students, identifying that excessive use (more than four hours daily) was unequivocally linked to lower life satisfaction and increased psychosomatic complaints.

Finally, the strong negative correlation ( $r = -0.48$ ) between SQS and QOL emphasizes the critical role of nocturnal restoration. Elevated sleep disturbances inevitably translate to severe daytime fatigue, cognitive impairment, and heightened emotional reactivity. The current findings mirror the work of Olley and Whyte (2025), who noted that poor sleep quality alongside problematic social media behaviors (like passive scrolling and nighttime use) heavily predicted adverse mental health outcomes, including moderate-to-severe depression and anxiety.

### **5.1 Study Implications**

These correlational findings carry significant weight for educational institutions and healthcare professionals in India. The pronounced inverse relationship between social media engagement and well-being metrics highlights an urgent need for structural awareness regarding digital boundaries. Understanding how these modern behaviors correlate directly with diminished physical and psychological functioning is paramount for young adults navigating the academic and competitive pressures of emerging adulthood.

### **5.2 Limitations**

While this study provides valuable insights, it contains limitations. The cross-sectional, correlational design precludes any determination of causality; it cannot definitively prove whether excessive social media use causes poor sleep, or if poor sleep drives individuals to use social media more frequently at night. Additionally, the study relies entirely on self-report measures, which are susceptible to recall bias and subjective interpretation by the participants.

### 5.3 Future Directions

Future research should expand upon these initial findings by incorporating longitudinal study designs to track the trajectory of digital habits and their long-term health outcomes over time. Furthermore, subsequent investigations would benefit from utilizing objective sleep measurement tools, such as actigraphy or polysomnography, to validate the subjective responses gathered via questionnaires.

## 6. Conclusion

This study employed a quantitative, correlational research design to examine the relationships among social media use, sleep quality, and quality of life in young adults. Data were collected from a sample of 50 participants aged 18 to 25 years utilizing self-administered online questionnaires, including the Social Media Use Questionnaire (SMUQ), the Sleep Quality Scale (SQS), and the WHOQOL-BREF. The findings revealed a significant positive correlation between social media use and sleep quality scores (indicating worse sleep), and a significant negative correlation between social media use and quality of life. Furthermore, higher scores on the sleep quality scale (indicating acute sleep problems) demonstrated a significant negative correlation with overall quality of life. The results highlighted that excessive social media engagement is strongly associated with disrupted sleep patterns and diminished well-being among young adults, emphasizing the need for targeted digital hygiene interventions. To effectively combat these contemporary challenges, it is highly suggested that universities and communities implement targeted digital health literacy programs and bedtime digital cut-off strategies. Establishing routine digital detox periods and providing psychosocial interventions focused on sleep hygiene can empower young adults to regain control over their virtual consumption, thereby drastically improving their physiological restoration and overall quality of life.

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