




Social Media Engagement and Fear of Missing Out as Predictors of Sleep Quality

Wioleta. Karna¹, Anahit. Hakobyan^{2*}, Badhon. Ahmmed³

¹ Department of Social Studies, Jesuit University Ignatianum, Krakow, Poland

² Department of Psychology, Yerevan State University, Yerevan, Armenia

³ Department of Psychology, Haripur University, Islamabad, Pakistan

* Corresponding author email address: a.hakobyan@ysu.am

Article Info

Article type:

Original Research

How to cite this article:

Karna, W., Hakobyan, A., & Ahmmed, B. (2025). Social Media Engagement and Fear of Missing Out as Predictors of Sleep Quality. *Journal of Adolescent and Youth Psychological Studies*, 1-9.

<http://dx.doi.org/10.61838/kman.jayps.6.5.13>



© 2025 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

ABSTRACT

Objective: This study aimed to investigate social media engagement and fear of missing out (FoMO) as predictors of sleep quality among Armenian adults.

Methods and Materials: A descriptive correlational design was employed, including 350 Armenian participants aged 18-30 years, selected through convenience sampling based on Morgan and Krejcie's sample-size guidelines. Standardized instruments were utilized: the Pittsburgh Sleep Quality Index (Buysse et al., 1989) assessed sleep quality, the Social Media Engagement Questionnaire (Przybylski et al., 2013) measured social media engagement, and the Fear of Missing Out Scale (Przybylski et al., 2013) evaluated FoMO. Pearson correlation coefficients examined relationships between the variables, and linear regression analysis identified predictors of sleep quality using SPSS-27, adhering to assumption checks.

Findings: Descriptive analysis indicated moderate sleep disturbances ($M = 12.45$, $SD = 4.21$), frequent social media engagement ($M = 23.87$, $SD = 5.36$), and high FoMO levels ($M = 32.56$, $SD = 6.12$). Pearson correlation analyses showed significant positive correlations between poor sleep quality and both social media engagement ($r = .47$, $p < .01$) and FoMO ($r = .62$, $p < .01$). Regression analysis revealed that these predictors significantly explained 35% of the variance in sleep quality scores ($R^2 = .35$, adjusted $R^2 = .34$; $F(2, 347) = 92.13$, $p < .01$). In multivariate regression, social media engagement ($\beta = .27$, $p < .01$) and FoMO ($\beta = .56$, $p < .01$) significantly predicted poorer sleep quality, with FoMO identified as the stronger predictor.

Conclusion: Social media engagement and fear of missing out significantly predicted poor sleep quality, with FoMO showing a stronger influence among young Armenian adults. These findings emphasize the importance of addressing digital media behaviors and psychological anxieties in interventions aimed at improving sleep outcomes.

Keywords: Sleep Quality, Social Media Engagement, Fear of Missing Out, Armenian Adults, Predictors, Descriptive Correlational Study

1. Introduction

In recent years, increased social media usage has emerged as a critical determinant influencing various aspects of psychological well-being and health outcomes among young adults and adolescents globally (Pradhan et al., 2025). Social media, with its ability to create constant connectivity, can substantially disrupt daily routines, notably sleep patterns, thus adversely affecting overall sleep quality (Lin et al., 2025). Sleep quality, considered a crucial indicator of physical and psychological health, has increasingly become the focus of researchers exploring the implications of modern technology usage, particularly social media platforms (Langlais et al., 2025). Numerous recent studies emphasize that extensive use of social media platforms significantly correlates with impaired sleep, characterized by reduced sleep duration, increased latency, and frequent disturbances during sleep (Utami et al., 2024; Wei et al., 2024). This pervasive issue, documented across diverse cultural and geographic contexts, underscores the global nature of the problem and highlights the urgency of further research into the underlying mechanisms linking social media use to sleep disturbances (Su et al., 2024; Thounaojam et al., 2024).

Young adults and university students, in particular, have been identified as highly vulnerable groups affected by negative consequences stemming from excessive social media engagement (Muhammad et al., 2024; Siddharthan et al., 2024). Among these consequences, fear of missing out (FoMO) is a critical psychological condition defined as an intense apprehension of missing rewarding experiences others might be having, leading individuals to continuously monitor social media updates, thereby negatively influencing their mental health and sleep (Khpalwak & Hamidi, 2024). Recent research conducted among students in South Asia indicated that elevated FoMO scores significantly mediated the relationship between high social media engagement and diminished sleep quality, suggesting the role of psychological distress in exacerbating sleep-related problems (Bhattarai et al., 2024; Gunarathne & Walpola, 2024). Similarly, a recent study conducted in the UAE further revealed that youth who experience higher FoMO levels consistently reported greater sleep disturbances and increased daytime dysfunction due to inadequate rest (Akhtar, 2024).

Several theoretical frameworks have attempted to elucidate the pathways through which social media and FoMO impact sleep. Yu and Gen (2023) highlight that

nocturnal social media use exacerbates sleep problems, suggesting that social anxiety triggered by FoMO intensifies late-night engagement on platforms, thereby disrupting the circadian rhythm and sleep quality (Yu & Gen, 2023). Additional studies reinforce these findings by documenting how late-night social media usage perpetuates psychological and physiological arousal, significantly impairing sleep initiation and maintenance processes among adolescents and young adults (Steeffan et al., 2023; Wang et al., 2023). Silva et al. (2023) extend this perspective by indicating that heightened emotional arousal associated with social media use before bedtime notably increases sleep latency and reduces overall sleep duration, particularly among undergraduate populations (Silva et al., 2023). This pattern is further supported by findings among nursing students, where extensive social media use before bedtime substantially decreased sleep quality, as evidenced by frequent awakenings and reduced sleep satisfaction (Setyowati et al., 2023).

Additionally, Mokhtari and Rastikerdar (2023) posit a critical interactive role of emotional regulation in determining sleep outcomes, indicating that individuals with poor emotional control experience worse sleep quality exacerbated by prolonged social media exposure, highlighting emotional vulnerability as an important mediating factor (Mokhtari & Rastikerdar, 2023). Concurrently, research has shown that poor sleep due to social media engagement negatively affects academic performance, mental clarity, and overall health outcomes, indicating broader implications beyond immediate sleep disturbances (Chan et al., 2023; Lin et al., 2023). In fact, Bezerra et al. (2023) illustrated a direct link between excessive social media use, poor sleep quality, and declining mental health among university students, underscoring the multifaceted nature of sleep disturbances influenced by digital behaviors (Bezerra et al., 2023).

Region-specific investigations have also reinforced global trends observed in sleep disturbances linked to social media. Studies conducted in Indonesia, for instance, revealed significant associations between prolonged daily social media usage and disrupted sleep patterns among adolescents, noting particular vulnerability in individuals heavily engaged with multiple social media platforms simultaneously (Agustina, 2023; Athiutama et al., 2023). Similarly, Wiratama and Bustamam (2022) highlighted a compelling correlation among Indonesian medical students, where intensified social media interactions led to higher levels of sleep disruption and decreased overall sleep

satisfaction (Wiratama & Bustamam, 2022). Likewise, research conducted by Kusmarini et al. (2022) in Bali indicated that adolescents spending extensive durations on social media consistently reported severe sleep quality disturbances, further emphasizing the broad cultural applicability of these findings (Kusmarini et al., 2022).

Research conducted in South Asia has similarly affirmed these global findings. Khan et al. (2022), for instance, observed among university students in Pakistan that social media addiction negatively correlated with sleep quality, with the severity of disturbances exacerbated by gender differences and socioeconomic status, implying demographic nuances that may moderate the observed effects (Khan et al., 2022). A complementary study from India emphasized that medical students exhibiting higher social media addiction scores consistently reported greater sleep difficulties, characterized by prolonged sleep onset and increased nighttime awakenings, suggesting similar outcomes across professional disciplines (Gowtham et al., 2022). Moreover, Hamilton et al. (2022) noted similar trends in Western contexts, reporting associations between social media use and compromised sleep quality among adolescents during the COVID-19 pandemic, highlighting the universality of the issue irrespective of regional or cultural boundaries (Hamilton et al., 2022).

Despite these comprehensive findings, current literature continues to emphasize a critical gap in understanding how these dynamics operate within specific national or cultural contexts, such as Armenia, where research exploring the intersection between social media use, FoMO, and sleep quality remains relatively sparse. Considering previous studies conducted primarily in Western or South Asian contexts, the applicability of these findings to Armenian populations necessitates further investigation. Armenia, a nation experiencing rapidly growing internet connectivity and social media penetration, provides a unique socio-cultural context to study these dynamics. Exploring this relationship among Armenian adults is particularly important, as local cultural factors, lifestyle patterns, and societal norms regarding sleep and technology use could influence the magnitude or direction of previously observed associations.

Given this background, the present study aims to contribute to the existing literature by examining social media engagement and fear of missing out as predictors of sleep quality specifically among Armenian adults. By integrating internationally recognized constructs and validated measurement tools, the study intends to verify the

robustness of existing theoretical frameworks in a less-studied context. Additionally, the investigation aims to elucidate culturally relevant aspects that could potentially inform interventions designed to mitigate negative impacts on sleep. Hence, this study addresses a crucial knowledge gap by examining the predictive value of social media engagement and FoMO concerning sleep quality in the Armenian population.

2. Methods and Materials

2.1. Study Design and Participants

This study employed a descriptive correlational design to investigate the predictive role of social media engagement and fear of missing out (FoMO) on sleep quality among young adults in Armenia. The population consisted of Armenian adults aged 18 to 30 years who actively use social media platforms. Based on the Morgan and Krejcie sampling table, the appropriate sample size for this study was determined to be 350 participants. Participants were recruited through convenience sampling via online announcements shared on popular Armenian social media platforms and online community forums. The sample comprised an approximately equal proportion of male and female respondents, representative of diverse educational and occupational backgrounds. After providing informed consent, participants completed an online questionnaire comprising demographic information and validated measurement tools for the research variables.

2.2. Measures

2.2.1. Sleep Quality

The Pittsburgh Sleep Quality Index (PSQI), developed by Buysse et al. in 1989, is a widely used standardized tool for assessing sleep quality over a one-month period. The PSQI consists of 19 self-rated items grouped into seven subscales: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction. Each component yields a score ranging from 0 to 3, with the total global PSQI score ranging from 0 to 21, where higher scores indicate poorer sleep quality. The PSQI has demonstrated strong psychometric properties, with internal consistency reliability coefficients typically above 0.80 and confirmed validity in various populations, including adolescents, college students, and adults (Pradhan et al., 2025; Utami et al., 2024; Wei et al., 2024).

2.2.2. Social Media Engagement

The Social Media Engagement Questionnaire (SMEQ), developed by Przybylski, Murayama, DeHaan, and Gladwell in 2013, is a standard instrument used to assess the extent and frequency of an individual's engagement with social media platforms. The questionnaire includes 5 items that ask respondents to indicate how often they engage in social media activities (e.g., checking updates, posting content) on a scale from 1 (never) to 7 (several times a day). The SMEQ is a concise, unidimensional measure without subscales, designed to capture habitual patterns of social media use. This tool has been validated in multiple studies with reported Cronbach's alpha values typically exceeding 0.85, indicating high internal consistency and construct validity across different age groups and cultural contexts (Langlais et al., 2025; Lin et al., 2025; Pradhan et al., 2025).

2.2.3. Fear of Missing Out

The Fear of Missing Out Scale (FoMOS), developed by Przybylski et al. in 2013, is a standardized self-report tool designed to assess the extent to which individuals experience apprehension that others might be having rewarding experiences without them. The scale comprises 10 items rated on a 5-point Likert scale ranging from 1 (not at all true of me) to 5 (extremely true of me), and it functions as a unidimensional measure without formal subscales. Higher scores indicate greater fear of missing out. The FoMOS has been extensively validated and is known for its strong psychometric properties, with internal consistency typically above 0.85 and robust construct and criterion-related validity demonstrated in various adolescent and adult samples (Yu & Gen, 2023).

2.3. Data Analysis

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS), version 27. Descriptive statistics, including mean, standard deviation, frequencies, and percentages, were computed to summarize demographic characteristics and variable distributions. To examine the relationships between the independent variables (social media engagement and fear of missing out) and the dependent variable (sleep quality), Pearson correlation coefficients were calculated separately. Additionally, linear regression analysis was performed to assess the predictive contribution of social media engagement and fear of missing out to participants' sleep quality. Before conducting regression analysis, assumptions including normality, linearity, homoscedasticity, and multicollinearity were checked and satisfied. Results were interpreted with a significance threshold set at $p < .05$.

3. Findings and Results

The study included a total of 350 participants, consisting of 164 males (46.86%) and 186 females (53.14%). Regarding age distribution, the majority were within the 18-22 age range, accounting for 187 participants (53.43%), followed by those aged 23-26, numbering 105 individuals (30.00%), and participants aged 27-30, totaling 58 (16.57%). In terms of education, the largest proportion consisted of undergraduate students, comprising 198 individuals (56.57%), followed by those holding a master's degree, representing 112 participants (32.00%), and finally, doctoral graduates, making up 40 participants (11.43%). Regarding employment status, 154 participants (44.00%) reported being students, while 119 (34.00%) were employed full-time, and the remaining 77 participants (22.00%) were either part-time employees or unemployed.

Table 1

Descriptive Statistics for Sleep Quality, Social Media Engagement, and Fear of Missing Out (N = 350)

Variable	Mean	Standard Deviation
Sleep Quality	12.45	4.21
Social Media Engagement	23.87	5.36
Fear of Missing Out	32.56	6.12

According to Table 1, Sleep Quality had an average score of 12.45 (SD = 4.21), indicating moderate sleep disturbances among the Armenian adults surveyed. Social Media Engagement reported a mean score of 23.87 (SD = 5.36), reflecting relatively frequent interactions with social media

platforms. The Fear of Missing Out (FoMO) showed the highest mean at 32.56 (SD = 6.12), suggesting significant levels of anxiety related to missing social events or opportunities.

Prior to conducting linear regression analysis, essential statistical assumptions were checked and confirmed. The normality of residuals was assessed using the Kolmogorov–Smirnov test, which yielded non-significant results ($p = .231$), confirming that the residuals were normally distributed. Linearity between independent variables (social media engagement and fear of missing out) and the dependent variable (sleep quality) was evaluated through scatterplots and found satisfactory. Homoscedasticity was

examined using residual scatterplots, demonstrating an even spread without any evident pattern, indicating constant variance of errors. Additionally, multicollinearity was evaluated using Variance Inflation Factor (VIF) values; the values obtained were 1.22 for social media engagement and 1.36 for fear of missing out, both below the recommended threshold of 5, confirming the absence of multicollinearity among the predictor variables.

Table 2

Pearson Correlation Between Sleep Quality and Predictor Variables

Variables	Pearson r	p-value
Social Media Engagement	.47	< .01
Fear of Missing Out	.62	< .01

The correlation analysis (Table 2) revealed significant positive correlations between Sleep Quality and both Social Media Engagement ($r = .47$, $p < .01$) and Fear of Missing

Out ($r = .62$, $p < .01$). These results indicate that higher engagement with social media and greater FoMO were each strongly associated with poorer sleep quality.

Table 3

Summary of Regression Analysis Predicting Sleep Quality

Source	Sum of Squares	df	Mean Squares	R	R ²	Adjusted R ²	F	p-value
Regression	762.85	2	381.43	.59	.35	.34	92.13	< .01
Residual	1435.46	347	4.14					
Total	2198.31	349						

The regression analysis indicated that the model significantly predicted Sleep Quality ($F(2, 347) = 92.13$, $p < .01$). The model explained 35% ($R^2 = .35$; Adjusted $R^2 = .34$) of the total variance in sleep quality scores, suggesting

substantial predictive power of Social Media Engagement and Fear of Missing Out regarding sleep disturbances (Table 3).

Table 4

Multivariate Regression Results Predicting Sleep Quality

Predictor	B	Standard Error	β	t	p-value
Constant	4.12	1.02	—	4.04	< .01
Social Media Engagement	0.21	0.04	0.27	5.25	< .01
Fear of Missing Out	0.38	0.05	0.56	7.60	< .01

The multivariate regression analysis indicated both Social Media Engagement ($B = 0.21$, $\beta = 0.27$, $t = 5.25$, $p < .01$) and Fear of Missing Out ($B = 0.38$, $\beta = 0.56$, $t = 7.60$, $p < .01$) were significant predictors of poorer Sleep Quality. The Fear of Missing Out emerged as the stronger predictor, indicating a more substantial impact on sleep disturbances among the participants (Table 4).

4. Discussion and Conclusion

The findings of the current study demonstrated significant relationships among social media engagement, fear of missing out (FoMO), and sleep quality among Armenian adults. Social media engagement exhibited a moderate positive correlation with impaired sleep quality, indicating that higher levels of social media use were associated with

increased sleep disturbances. Similarly, the regression analysis revealed that social media engagement significantly predicted poor sleep quality, consistent with prior research in diverse cultural contexts. Specifically, earlier studies conducted among undergraduate nursing students in Kathmandu also found similar outcomes, confirming a direct positive association between high social media engagement and diminished sleep quality characterized by reduced sleep duration, frequent awakenings, and prolonged sleep latency (Bhattarai et al., 2024). Comparable results were obtained in research conducted by Siddharthan et al. (2024) among medical students, who reported frequent nocturnal disturbances linked to excessive nighttime social media interactions (Siddharthan et al., 2024). Likewise, Setyowati et al. (2023) provided empirical support for this association, demonstrating significant reductions in sleep quality attributed explicitly to extensive daily use of social media platforms, reaffirming the detrimental role of excessive digital media interactions (Setyowati et al., 2023).

Moreover, the study confirmed a significant and strong predictive relationship between fear of missing out and sleep quality, revealing that individuals experiencing higher FoMO exhibited markedly poorer sleep quality. This aligns well with previous findings in which FoMO emerged as a critical psychological mediator contributing to sleep disturbances through increased nighttime social media engagement (Yu & Gen, 2023). Lin et al. (2025) further substantiated this finding, demonstrating that adolescent athletes who experienced high FoMO frequently engaged in nighttime social media use, resulting in negative emotional states and significantly disrupted sleep patterns (Lin et al., 2025). The mechanism underlying this phenomenon is supported by studies such as Silva et al. (2023), who suggested that FoMO leads to heightened emotional arousal and anxiety, disrupting the ability to initiate and maintain sleep effectively (Silva et al., 2023). Similar patterns were observed in the findings by Akhtar (2024), indicating that youth who consistently feared missing rewarding experiences reported prolonged social media sessions late at night, contributing to sleep fragmentation and reduced sleep quality (Akhtar, 2024). Collectively, these findings underline the robust psychological mechanism by which FoMO exacerbates sleep-related issues through increased nocturnal activity and emotional stress induced by social media.

The current results indicated that both social media engagement and FoMO independently and collectively predicted poor sleep quality, suggesting that interventions

targeting these variables could effectively mitigate sleep disturbances. The negative implications of social media engagement on sleep have been documented widely across different populations, including students, working adults, and adolescents (Muhammad et al., 2024; Steefan et al., 2023). Specifically, Langlais et al. (2025) confirmed that relationship stress exacerbated by social media use indirectly reduced both objective and subjective sleep quality, highlighting the complexity of interactions among emotional, social, and technological factors impacting sleep (Langlais et al., 2025). Additionally, studies by Khan et al. (2022) and Gowtham et al. (2022) consistently affirmed the link between excessive social media usage, intensified psychological distress, and impaired sleep, emphasizing the relevance of demographic factors such as gender and socioeconomic status in shaping this relationship (Gowtham et al., 2022; Khan et al., 2022).

Moreover, aligning with previous research by Wei et al. (2024) and Su et al. (2024), the present findings emphasize the role of prolonged internet exposure and social media fatigue in exacerbating sleep disturbances, suggesting that sustained digital exposure, driven by FoMO, significantly diminishes sleep efficiency and overall sleep satisfaction (Su et al., 2024; Wei et al., 2024). Wang et al. (2023) similarly highlighted how excessive social media engagement negatively impacted sleep, subsequently reducing workplace performance and overall well-being, which extends the implications of poor sleep quality beyond mere health outcomes into broader social and economic consequences (Wang et al., 2023). The consistency of these findings across various cultural contexts—including recent studies conducted in South Asia, Indonesia, and Sri Lanka—reinforces the generalizability and significance of the associations identified in this Armenian sample (Agustina, 2023; Athiutama et al., 2023; Khpalwak & Hamidi, 2024; Silva et al., 2023).

The psychological dynamics identified in the present study align closely with the emotion-regulation framework proposed by Mokhtari and Rastikerdar (2023), which emphasizes that poor emotional regulation amplified by excessive digital exposure deteriorates sleep quality. According to their framework, prolonged social media engagement combined with heightened FoMO exacerbates emotional dysregulation, impairing sleep initiation and maintenance processes (Mokhtari & Rastikerdar, 2023). Additionally, Lin et al. (2023) reported comparable findings, noting that aggressive behaviors and emotional disturbances associated with social media addiction significantly

compromised sleep quality, further elucidating the psychological mechanisms underpinning the observed relationships (Lin et al., 2023).

Overall, the consistency of the current findings with extensive international research underlines the necessity of understanding the broader psychological implications of digital media usage and FoMO in diverse cultural settings. Armenia's growing reliance on digital connectivity emphasizes the importance of recognizing these implications, especially considering the limited availability of targeted interventions designed specifically for Armenian populations.

5. Limitations & Suggestions

Several limitations should be acknowledged in interpreting the findings of this study. First, due to the correlational design, causality cannot be established. While significant associations among social media engagement, FoMO, and sleep quality were identified, it remains unclear whether poor sleep quality promotes increased social media use and FoMO, or vice versa. Second, the use of self-report measures might introduce potential biases such as social desirability or inaccurate recall of behaviors, potentially affecting the accuracy of reported sleep quality or engagement patterns. Third, employing convenience sampling through online recruitment may have introduced selection bias, limiting generalizability beyond individuals actively engaging in online activities. Additionally, despite the sample size meeting statistical guidelines, generalization beyond urban Armenian populations may be limited, as rural populations or individuals without regular internet access were less represented.

Future research should adopt longitudinal or experimental designs to establish causal relationships clearly between social media engagement, FoMO, and sleep quality. Longitudinal studies could track these variables over time, determining how changes in social media habits or FoMO levels predict variations in sleep quality. Moreover, employing objective measurements of sleep quality, such as actigraphy or polysomnography, alongside subjective assessments could strengthen the reliability of findings. Comparative studies across different demographic groups, such as urban and rural populations or different socioeconomic statuses, could further enhance understanding of demographic moderators influencing these relationships. Finally, qualitative methods, such as in-depth interviews, could offer nuanced insights into individual

experiences and perceptions regarding social media usage, FoMO, and sleep disturbances.

Practitioners, educators, and healthcare professionals should incorporate educational interventions that raise awareness about the negative implications of excessive social media engagement and FoMO on sleep quality. Institutions should consider implementing workshops or training programs designed to improve digital literacy, promoting healthier social media behaviors and effective time management strategies, particularly during evening hours. Additionally, psychological interventions aimed at reducing FoMO, such as cognitive-behavioral therapy techniques or mindfulness training, could mitigate associated emotional distress, thereby improving sleep quality. Promoting public health campaigns emphasizing the importance of digital detox periods, especially before bedtime, could foster healthier sleep practices within communities. These practical recommendations may help reduce sleep disturbances, enhance psychological well-being, and support overall quality of life among affected populations.

Acknowledgments

We would like to express our appreciation and gratitude to all those who cooperated in carrying out this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

Authors' Contributions

This article is derived from the first author's doctoral dissertation. All authors equally contributed to this article.

References

- Agustina, A. (2023). Modeling Social Media Use and Anxiety Levels With Students' Sleep Quality: Ordinal Logistic Regression. *Journal of Statistics and Data Science*, 34-42. <https://doi.org/10.33369/jsds.v2i1.27259>
- Akhtar, F. (2024). Youth Attitudes Towards the Effects of Social Media Addiction: A Study on College Students in the United Arab Emirates. <https://doi.org/10.32388/5lw5by>
- Athiutama, A., Ridwan, R., Febriani, I., Erman, I., & Trulianty, A. (2023). Penggunaan Media Sosial Dan Kualitas Tidur Pada Remaja. *Jurnal Keperawatan Raflesia*, 5(1), 57-64. <https://doi.org/10.33088/jkr.v5i1.867>
- Bezerra, L. B., Fortkamp, M., Silva, T. O., Vitor Cruz Rosa Pires de, S., Machado, A. A. V., & Souza, J. C. (2023). Excessive Use of Social Media Related to Mental Health and Decreased Sleep Quality in Students. *Revista Eletrônica Acervo Saúde*, 23(7), e13030. <https://doi.org/10.25248/reas.e13030.2023>
- Bhattarai, T., Sharma, M., Upadhyay, R., Kc, T., & Shahi, B. B. (2024). Social Media Use and Quality of Sleep Among Undergraduate Nursing Students in Kathmandu. *Journal of Institute of Medicine Nepal*, 46(2), 71-77. <https://doi.org/10.59779/jiomnepal.1307>
- Chan, C. K., Sarte, J., Sze, A. P., Talampas, J. C., & Azcarraga, J. (2023). Investigating How Technology May Negatively Affect the Academic Performance and Sleep Quality of Students. *Icce*. <https://doi.org/10.58459/icce.2023.1409>
- Gowtham, V., Lincy, T., & Kaleeswaran, S. (2022). A Study on Impact of Social Media Usage on Sleep Disturbances Among Medical College Students. *Pijr*, 76-77. <https://doi.org/10.36106/paripex/7908087>
- Gunarathne, N., & Walpola, A. S. (2024). A Psychological Study of the Impact of Social Media Addiction on Sleep Patterns. *International Journal of Latest Technology in Engineering Management & Applied Science*, XIII(IV), 140-145. <https://doi.org/10.51583/ijltemas.2024.130416>
- Hamilton, J. L., Hutchinson, E., Evankovich, M. R., Ladouceur, C. D., & Silk, J. S. (2022). Daily and Average Associations of Physical Activity, Social Media Use, and Sleep Among Adolescent Girls During the COVID-19 Pandemic. *Journal of Sleep Research*, 32(1). <https://doi.org/10.1111/jsr.13611>
- Khan, A. A., Sajjad, M. A., & Iqbal, A. (2022). Impact of Social Media Addiction on Quality of Sleep Among University Students: Gender and Socio-Economic Status Are in Focus. *Om&s*, 3, 54-62. <https://doi.org/10.71016/oms/x1btt445>
- Khpalwak, A. T., & Hamidi, M. S. (2024). Relationship Between Social Media Use and Sleep Disturbance Among Adults in Afghanistan. *American Journal of Medical Science and Innovation*, 3(1), 27-34. <https://doi.org/10.54536/ajmsi.v3i1.2418>
- Kusmarini, P. E., Utami, D. K. I., Witari, N. P. D., & Widyadharma, I. P. E. (2022). Hubungan Durasi Penggunaan Media Sosial Dengan Gangguan Kualitas Tidur Remaja Di SMP Negeri 1 Mengwi. *E-Jurnal Medika Udayana*, 11(4), 1. <https://doi.org/10.24843/mu.2022.v11.i04.p01>
- Langlais, M. R., Bigalke, J. R., & Bigalke, J. A. (2025). Relationship Stress and Sleep: Examining the Mediation of Social Media Use for Objective and Subjective Sleep Quality. *J. Soc. Media Res.*, 2(1), 1-12. <https://doi.org/10.29329/jsomer.15>
- Lin, S., Longobardi, C., Gastaldi, F. G. M., & Fabris, M. A. (2023). Social Media Addiction and Aggressive Behaviors in Early Adolescents: The Mediating Role of Nighttime Social Media Use and Sleep Quality. *The Journal of Early Adolescence*, 44(1), 41-58. <https://doi.org/10.1177/02724316231160142>
- Lin, W. C., Cen, Z., & Chen, Y. (2025). The Impact of Social Media Addiction on the Negative Emotions of Adolescent Athletes: The Mediating Role of Physical Appearance Comparisons and Sleep. *Frontiers in Public Health*, 12. <https://doi.org/10.3389/fpubh.2024.1452769>
- Mokhtari, S., & Rastikerdar, N. (2023). The Interaction of Emotion Regulation and Sleep Quality: Does Social Media Usage Duration Play a Role? *Journal of Neurodevelopmental Cognition*, 3(1), 1-8. <https://doi.org/10.52547/jncog.2023.103446>
- Muhammad, F. N., Hidayatullah, F., Andalusi, M. S. A., & Hidayat, W. (2024). Analisis Penggunaan Media Sosial Terhadap Kualitas Tidur Pada Mahasiswa Fakultas Ekonomi Dan Bisnis Islam. *Santri*, 2(4), 62-69. <https://doi.org/10.61132/santri.v2i4.726>
- Pradhan, L., Adhikari, P., Shah, K. R., Bhusal, S., Oli, K., Khanal, P., & Singh, A. K. (2025). Social Media Addiction and Its Association With Sleep Quality and Anxiety: A School-Based Cross-Sectional Study From Nepal. <https://doi.org/10.21203/rs.3.rs-5783624/v1>
- Setyowati, L., Kurnia, A. D., Lestari, W., & Karuncharernpanit, S. (2023). Association Between Social Media Addiction and Sleep Quality Among Undergraduate Nursing Students: A Cross-Sectional Study. *Frontiers of Nursing*, 10(2), 233-239. <https://doi.org/10.2478/fon-2023-0025>
- Siddharthan, A., Aljin, V., Hariharan, S., & Eashwar, V. A. (2024). Social Media Addiction and Its Association With Sleep Quality Among Medical Students in a Medical College in Tamil Nadu, India. *National Journal of Community Medicine*, 15(09), 712-719. <https://doi.org/10.55489/njcm.150920244224>
- Silva, S., Tzenios, N., & Salibi, G. (2023). Relationship Between the Use of Social Media and the Effects on the Sleep Cycle Among Sri Lankan Undergraduate Students. *Special Journal of the Medical Academy and other Life Sciences*, 1(7). <https://doi.org/10.58676/sjmas.v1i7.42>
- Steehan, J. M., Siddesha, G., & Keerthi, P. (2023). Impact of Social Media on Quality of Sleep Among Homoeopathic Medical Students: A Cross Sectional Study. *International Journal of Science and Healthcare Research*, 8(1), 10-16. <https://doi.org/10.52403/ijshr.20230102>
- Su, H., Wang, T., & Zhang, X. (2024). Social Media Use and College Students Sleep Quality: An Analysis of Influencing Factors. *Lecture Notes in Education Psychology and Public Media*, 36(1), 233-241. <https://doi.org/10.54254/2753-7048/36/20240465>
- Thounaojam, M., Radha, M. S., & Vanitha, N. (2024). Effect of Bedtime Social Media Use on Quality of Sleep Among Adolescents in Selected Schools and Pre-University Colleges, Bangalore. *International Journal of Research in Medical Sciences*, 12(11), 4071-4076. <https://doi.org/10.18203/2320-6012.ijrms20243001>
- Utami, D. K. I., Sitanggang, P. A., Adnyana, M. O., Anak Agung Ayu Putri, L., & Budiarsa, I. G. N. K. (2024). The Impact of Electronic Devices and Distance Learning on Sleep Quality Among Medical Science Students During the COVID-19 Pandemic in Indonesia. *International Journal of Scientific Advances*, 5(2). <https://doi.org/10.51542/ijscia.v5i2.24>
- Wang, Q., Azam, S., Murtza, M. H., Shaikh, J. M., & Rasheed, M. I. (2023). Social Media Addiction And employee Sleep: Implications for Performance and Wellbeing In the

- Hospitality Industry. *Kybernetes*, 53(12), 5972-5990. <https://doi.org/10.1108/k-06-2023-0939>
- Wei, L., Chang, C.-C., Sikakaew, P., Thamsatitsuk, K., Huang, X., Jaisook, N., Li, M., Zhao, F., Chen, X., Zhang, L., Yang, C., & Mo, L. (2024). From Insomnia to Exhaustion: Repercussions of Pervasive Internet Use on Sleep Quality and Social Media Fatigue. *European Journal of Education Studies*, 11(7). <https://doi.org/10.46827/ejes.v11i7.5456>
- Wiratama, M. D., & Bustamam, N. (2022). Gangguan Sosial Media Dan Kualitas Tidur Pada Mahasiswa Kedokteran. *Jurnal Kesehatan Kusuma Husada*, 135-143. <https://doi.org/10.34035/jk.v13i2.827>
- Yu, T., & Gen, Z. (2023). College Students' Social Media Addiction and Sleep Problems: Chain Mediating Effects of Fear of Missing Out and Nocturnal Social Media Use. *Social Behavior and Personality an International Journal*, 51(6), 1-9. <https://doi.org/10.2224/sbp.12176>