

Sleep Disturbances, FOMO, and Anxiety in Generation Z: A Psychological Exploration of Digital-Age Stress

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Abstract:

Students of Generation Z often face challenges including academic pressures, extended screen time, and psychological stresses, all of which have a negative impact on their sleep quality. The behavioral and psychological factors that influence sleep patterns in State name 18–24-year-old population are examined in this study, with a focus on the timing of sleep initiation, total sleep length, and the existence of sleep disturbances. Using Google Forms, a cross-sectional online survey was administered to 800 participants. This survey's main goal was to gather information on a variety of sleep-related metrics, anxiety, and FOMO. These included sleep length, latency, and disruptions, as well as a number of potential contributing variables, such as screen use, academic demands, and psychological stresses. A significant percentage of the pupils had delays in falling asleep, even though the majority did so within 30 minutes. Students' reported sleep levels varied greatly, and many of them said they did not get enough sleep. Increased worry, scholastic pressures, and excessive use of electronics are major factors that impair the quality of sleep. A variety of behavioral and psychological pressures, including as scholastic demands, excessive technology usage, and elevated anxiety, are contributing to the deterioration in sleep quality experienced by State name Generation Z students. It is feasible to enhance sleep health and promote a more positive general well-being for this population by implementing focused awareness campaigns and treatments that deal with these issues.

Keywords: Generation-Z, Academic performance, Circadian rhythms, Cognitive performance, Anxiety, Sleep quality.

Introduction

There are significant differences across generations in terms of sleep habits. Compared to people born between 1981 and 1996, members of Generation Z, who were born between 1996 and 2010, are more prone to sleep disorders. According to Shochat et al. (2013) and Okawa et al. (2007), the prolonged use of technology and the increased exposure to media

throughout the night are major contributors to this increased vulnerability. Teenagers who use digital media more often had worse sleep outcomes, including trouble falling and staying asleep (Hale and Guan, 2015). Teenagers and young adults' ability to obtain restorative sleep is hampered by their frequent use of electronic media, particularly in the hours before bed, since it disrupts circadian cycles and increases cognitive activation (Cain et al., 2010).

Generation Z is finding it more and more difficult to get proper sleep in the digital environment of today. People who use screens for extended periods of time, particularly in the hours before bed, are exposed to blue light, which may disrupt the body's natural circadian cycles. In today's fiercely competitive culture, the demands of professional and academic settings can significantly worsen stress and anxiety levels, which in turn can make it more difficult to fall asleep and stay asleep. Furthermore, because of their obligations to social activities, part-time employment, and school, people of Generation Z frequently deal with erratic schedules. The body's circadian cycles may be disturbed as a result of this irregular sleep pattern, making it difficult to establish consistent and healthful sleep habits.

On top of that, people in this generation are particularly affected by the pervasive problem of FOMO. Regular use of social media at night has been shown to shorten sleep length and delay sleep scheduling, particularly in young adults (Carter et al., 2016). Due to the widespread impact of social media, the demands of long-term school obligations, and increased stress from job, students often struggle to get enough sleep. These factors make it more difficult to unwind and make the switch to restful sleep by encouraging late-night activities and erratic sleep patterns. As a result, sleep deprivation negatively affects their day-to-day functioning, resulting in decreased productivity, increased irritation, and a general decline in wellbeing. In addition, the allure of social media and the ubiquitous light of screens have become essential components of Generation Z's way of life. Long-term screen time habits, such as obsessively scrolling through social media or binge-watching popular streaming series, encourage people to forgo sleep in favor of entertainment. Furthermore, sleep deprivation is frequently made worse by the academic demands that define this age. Students who don't get enough sleep are more likely to experience emotional instability, poor academic performance, and a recurrent pattern of weariness, particularly in groups that spend a lot of time on screens (Beattie et al., 2015; Owens et al., 2014). This continuous battle with stress and sleep deprivation emphasizes how important it is to develop good sleep hygiene habits and a balanced lifestyle in order to promote efficiency and health.

The detrimental effects of FoMO on sleep quality have been the subject of an expanding corpus of international scholarship. For example, Scott and Woods (2018) looked into how social media use and FOMO affect teenagers' sleep patterns. Their research showed that social media use at night, motivated by FOMO, was linked to later bedtimes, higher levels of cognitive arousal before to sleep, and shorter sleep durations. Adams et al. (2020) also found that sleeplessness symptoms were associated with social anxiety and FOMO, which had a detrimental effect on students' mental health. By finding that FoMO and smartphone dependence functioned as mediation variables between negative emotional states and poor sleep quality in Chinese college students, Li et al. (2023) expanded on this knowledge. Huang et al. (2023) further highlighted how FoMO significantly worsened sleep quality when combined with procrastination before bed and reliance on mobile phones. Shah et al. (2021) discovered a strong positive association between internet reliance and FOMO among young individuals in Mumbai, India. According to their research, those with greater levels of FOMO are more likely to rely on the internet, which may have an impact on their sleep patterns and digital hygiene. In support of this, Sudheer and Saligram (2023) found that among Indian college students, higher levels of FoMO were linked to higher levels of social media use and lower psychological well-being. Even with this growing body of study, little is known about the precise ways that FoMO affects Indian college students' sleep, especially those who attend fast-paced academic cities like Delhi and Noida. High academic pressure, continual digital interaction, and psychological stress are commonplace for students in these metropolitan regions, which can exacerbate FOMO and interfere with sleep.

This study aims to systematically examine the behavioral and psychological factors affecting the quality of sleep for State name-based Generation Z students. The study will explicitly look at things like when they go to sleep, how long they stay asleep, and the larger lifestyle issues that affect how they sleep. This study also measures the Fear of Missing out (FoMO) levels among Generation Z students and examines the correlation between FoMO scores and PSQI scores.

Material and Methods

Study Design

The behavioral and psychological factors influencing sleep quality in State name Generation Z students were investigated using a descriptive observational survey design.

Hypothesis and Analytical

The study was a descriptive observational investigation that looked at the sleep patterns, behaviors, and contributing variables that Generation Z students in State name were experiencing. The study used descriptive statistics to look at trends and connections among a number of characteristics, including as screen usage, academic stress, sleep length, latency, and self-assessed sleep quality, instead of using formal hypothesis testing using inferential statistical approaches.

Data Collection Procedure

Numerous aspects of sleep quality, such as sleep duration, sleep latency, and related behavioral and psychological characteristics, were evaluated using a semi-structured questionnaire. The tool, which consisted of 30 questions, asked questions on demographics as well as anxiety, sleep, and FOMO. The Pittsburgh Sleep Quality Index (PSQI) (University of Pittsburgh, 2024), a recognized metric for assessing sleep quality, used as the basis for the sleep-related questions. In addition, the questionnaire included questions regarding lifestyle decisions, psychological pressures, behavioral patterns, and academic challenges in order to provide a comprehensive picture of the factors influencing sleep in the target population. Google Forms was used to distribute the survey via social media, effectively reaching a diverse student body throughout State name. The choice of this online distribution approach was made in order to promote accessibility and widespread involvement, especially among the digitally savvy Generation Z population. In order to increase the effectiveness of data collecting and broaden the reach within the target student community, the survey link was shared with friends and acquaintances by the first responders, who were then recruited using a snowball sampling approach.

Inclusion and Exclusion Criteria

Students from Generation Z, ages 18 to 24, who resided in State name and were enrolled in classes that had access to the online survey platform were eligible to participate in the study. On the other hand, participants who did not dwell in State name, those who did not fall within the specified age range, and those who gave incomplete survey replies were excluded due to the exclusion criteria.

Sample Size/Participants

Only 800 of the 853 replies that were gathered for this study were judged eligible according to the predetermined inclusion criteria. In order to keep the study focused on Generation Z

students in the state of State name who are between the ages of 18 and 24, responses from participants who were older than 24 and those who did not reside in the state were excluded. The 800 replies gathered sufficiently represent the range of experiences within the target population, despite the lack of a systematic sample formula. The 800 replies gathered are thought to be sufficient for the purpose of this study, even though no specific sample formula was used. The sample is guaranteed to represent a thorough cross-section of the target population according to the random sampling technique used. Considering the sizeable number of Generation Z students in State name, this sample size is adequate to enable extrapolation of the findings to a broader population. Furthermore, the data's trustworthiness is increased by the diverse replies received from various State name locations and educational institutions.

Data Analysis

The Microsoft Excel Toolpack was used to analyze the collected data. The demographic characteristics and sleep-related factors were summarized using descriptive statistics. Inferential statistical techniques, such as correlation analysis and chi-square tests, were used to look into the connections between the variables of interest.

Ethical Considerations

Strict adherence to ethical norms was observed throughout the procedure, even if formal written consent was not obtained because the survey was conducted online. The poll was designed to be simple and direct, purposefully excluding any delicate or invasive questions. Participants were informed about the goals of the study and reminded that participation was completely optional in an introduction statement on the Google Form. Additionally, data was gathered anonymously to protect the privacy of the answers. These safeguards were put in place to handle any possible moral dilemmas and guarantee the privacy of the participants.

Results

Table 1 show that the majority of participants were between the ages of 21 and 24, with 67.56% of them being male. The age group of 17 to 20 years old, on the other hand, had a greater proportion of female participants (59.52%). According to this pattern, younger female students may be more likely to actively engage in surveys, which may be a sign of increased health consciousness or a willingness to assist in research projects.

Table 1: Demographics and Sleep Patterns.

Category	Details	Males (n=296)	Females (n=504)	Total (n=800)
Age Group	17-20 Years	96 (32.43%)	204(40.47%)	300 (37.5%)
	21-24 Years	200 (67.56%)	300 (59.52%)	500 (62.5%)
Hours of Sleep per Night	< 5 hr	33 (11.14%)	38 (7.53%)	71 (8.87%)
	5-6 hr	111 (37.5%)	134 (26.58%)	245 (30.62%)
	6-7 hr	100 (33.78%)	201 (39.88%)	301 (37.62%)
	> 7 hr	52 (17.56%)	131 (25.99%)	183 (22.87%)
Sleep Latency	1-5 min	124 (41.89%)	182 (36.1%)	306 (38.25%)
	16-30 min	92 (31.08%)	160 (31.74%)	252 (31.50%)
	31-60 min	54 (18.24%)	81 (16.07%)	135 (16.87%)
	> 60 min	26 (8.78%)	81 (16.07%)	107 (13.37%)

Regarding sleep length, 37.62% of individuals, a sizable component of the sample, reported sleeping 6–7 hours every night. 22.87% of respondents who said they slept for more than seven hours came next. On the other hand, a small percentage of people—just 8.87%—slept for fewer than five hours. These findings suggest that while most students get typical amounts of sleep, a smaller percentage could be under a lot of social or academic strain, which probably results in shorter sleep lengths.

Regarding sleep latency, a sizable percentage of students—38.25%—reported dozing off in as little as one to five minutes, which suggests high levels of exhaustion. On the other hand, 13.37% of students had sleep onset delays longer than 60 minutes. This might be due to a variety of variables, including stress or the nighttime social media use habits that are common among Generation Z. Extended sleep latency highlights a concerning disruption in pre-sleep routines, which may have a negative effect on sleep quality overall.

Table 1 shows that the analysis found a statistically significant difference in sleep quality between the sexes, with males experiencing slightly better sleep quality than females (p-value of 0.031). This difference may be due to differences in gender-related hormonal cycles, different stress responses, lifestyle choices, subjective sleep quality assessments, or the influence of social and environmental factors on sleep behaviors.

Table 2 shows that many participants experienced frequent sleep interruptions, with 624 reporting numerous nighttime awakenings, 611 noting the need to use the restroom, and 539 reporting discomfort from an overabundance of body heat. These results highlight the important impact of environmental conditions and hydration habits on the quality of sleep, implying that better temperature management and nighttime routines might improve overall sleep experiences. There were 64 participants in the group who rated their sleep quality as "Very Good," meaning they slept for 6 to 7 hours. On the other hand, people who slept for fewer than five hours had far worse sleep outcomes, including a higher frequency of "Very Bad" sleep quality. These results highlight how important it is to keep a sufficient and regular sleep schedule. It is important to note, nevertheless, that sleeping for more than seven hours did not result in any extra advantages and could perhaps have the opposite effect, possibly due to irregular sleep patterns.

Table 2 shows a statistically significant trend in the relationship between sleep duration and quality, indicating that longer sleep duration is linked to better sleep quality ($p = 0.004$). This suggests a strong correlation between longer sleep durations and improved sleep quality, suggesting that getting enough sleep is important for influencing sleep health outcomes. Assessments of sleep quality revealed that only 20% of respondents rated their sleep as "Very Good," 25.62% as "Fairly Bad," and 16.25% as "Very Bad," as shown in Table 3. This high prevalence of poor sleep quality is linked to irregular sleep patterns, elevated stress levels, and environmental disruptions, highlighting the need for focused treatments.

Table 2: Sleep Practices and Contributing Factors.

Category	Details	Frequency
Contributing Factors for Sleep Disruption	Waking up in the night	624
	Needing to use the bathroom	611
	Feeling excessively hot	539
	Difficulty falling asleep	516
	Feeling excessively cold	302
	Difficulty breathing	261
Sleep Duration Impact	< 5 hr (n=71)	Very Good: 14

		Fairly Good: 18
		Fairly Bad: 25
		Very Bad: 14
	5-6 hr (n=199)	Very Good: 23
		Fairly Good: 83
		Fairly Bad: 67
		Very Bad: 26
	6-7 hr (n=320)	Very Good: 64
		Fairly Good: 122
		Fairly Bad: 82
		Very Bad: 52
	> 7 hr (n=210)	Very Good: 68

Table 3: Sleep Quality and Gender Comparison.

Category	Details	Males (n=296)	Females (n=504)	Total (n=800)
Sleep Quality	Very Good	87 (29.39%)	102 (20.23%)	189 (20.27%)
	Fairly Good	111 (37.5%)	178 (35.31%)	289 (36.12%)
	Fairly Bad	60 (20.27%)	161 (32%)	221 (27.62%)
	Very Bad	38 (12.83%)	63 (12.5%)	101 (34.12%)
Sleep Duration and Consequences	< 5 hr (n=71)	Anxious: 3	Depressed: 10	Concentrating: 10
	6-7 hr (n=370)	Concentrating: 73	Efficient: 73	Depressed: 34

There were differences in the quality of sleep across the sexes, with men reporting somewhat better "Very Good" sleep results than women, who, on the other hand, reported less "Very Bad" sleep (Table 3). This phenomenon may be explained by differences in stress levels, hormonal effects, or lifestyle preferences, indicating that women may be more likely to adopt

healthy nighttime routines. When taken as a whole, these results illustrate how important lifestyle choices, behavioral patterns, and environmental factors are in determining how well Generation Z students in State name sleep, underscoring the need for focused interventions to improve their general sleep health.

Descriptive and correlational analysis was used to investigate the connection between sleep quality and FOMO. The results highlight the potential connection between increased levels of FOMO and modifications in sleep habits in this demographic, offering valuable insight into the psychological and behavioral tendencies of State name's Gen Z students. Table 4 summarizes the descriptive statistics for the Fear of Missing Out (FoMO) and sleep quality (PSQI) scores among college students. With a standard deviation of 7.39 and an average FoMO score of 28.48, the sample showed a moderate level of FoMO. With a standard deviation of 2.67 and a mean PSQI score of 8.92, individuals generally reported less than ideal sleep quality. These results underline the psychological vulnerabilities that exist among college students in metropolitan academic settings like state name, indicating that both FoMO and sleep disorders are common in this population. Higher levels of FoMO were substantially linked to higher PSQI scores, indicating poorer sleep quality among college students, according to the study, which showed a moderately positive connection ($r = 0.51, p < .001$) (Table 5). This implies that students who expressed higher anxiety about losing out on social opportunities were also more likely to have irregular or poor sleep habits. This correlation's intensity and relevance demonstrate a significant psychological relationship between young people's physiological well-being and digital-social pressures.

Table 4: Descriptive statistics for FoMO and Sleep Quality Scores (N=800).

Variable	Mean	Standard Deviation
FoMO score	28.48	7.39
PSQI score	8.92	2.67

Table 5: Pearson's correlation between FoMO and sleep quality.

Variable	Pearson's r (correlation)	p-value
FoMO and PSQI	0.51	<0.001

Discussion

According to the study's findings, a sizable portion of State name's Generation Z students experience sleep disturbances, including delayed sleep start, poor sleep quality, and chronic sleep deprivation. This supports the findings of Kaya et al. (2020), who discovered that excessive smartphone use postpones the beginning of sleep. Additionally, the findings of Demirci et al. (2015), who found that academic stress and digital connections significantly contribute to the incidence of chronic sleep insufficiency, are in line with our observation that some participants reported sleeping for less than five hours. Our results demonstrate the substantial influence of academic stress, rumination, and anxiety on sleep disturbance, which is consistent with Zhang et al. (2016)'s study, which found a direct link between academic demands and poor sleep quality among Chinese nursing students. Furthermore, Demirci et al. (2015) found that worry exacerbates the negative effects of smartphone use on sleep patterns, supporting this relationship.

The results of Carter et al. (2016), who found a connection between late-night social media use and circadian rhythm disturbances, are consistent with the delayed sleep periods found in our study, which typically occur between 11 PM and 1 AM. According to Jiang et al. (2020), who observed Generation Z's propensity for nighttime social activities, this tendency is very common among them. These findings highlight the need for treatments like digital detox programs to be put into place in order to assist rebalance sleep cycles. In our study, most participants rated their sleep quality as 'Fairly Good,' with a smaller percentage rating it as 'Very Bad.' These subjective assessments are in line with research by Okun et al. (2009), which showed that stress-related disruptions are often associated with a worse sense of sleep quality.

Using evidence-based solutions is crucial to addressing these issues. By assisting people in controlling their anxiety and altering negative ideas associated with sleep, Cognitive Behavioral Therapy (CBT) effectively treats insomnia (Wang et al., 2020). Education on sleep hygiene, which encourages consistent sleep patterns and less screen time, has demonstrated beneficial results (Dietrich et al., 2016) and may be modified to fit pupils in the digital era. Furthermore, sleep hygiene-promoting educational techniques that emphasize minimizing screen time and keeping regular sleep cycles have been shown to provide positive outcomes (Dietrich et al., 2016) and may be modified to fit the digital habits of today's children.

Additionally, promoting frequent aerobic activity can improve the beginning and duration of sleep by counteracting the negative effects of a sedentary lifestyle that is made worse by digital media (Wang et al., 2020). Mild sleep disruptions may also be alleviated by easy techniques like lavender aromatherapy (Wang & Bíró, 2020). Mindfulness-based techniques including yoga, meditation, and progressive muscle relaxation have also been shown to significantly enhance sleep quality (NCCH, 2018), particularly when incorporated into structured wellness initiatives. Students can develop better sleep habits with the use of resources like sleep tracking applications and reminders. These resources, when combined with all-encompassing behavioral strategies like digital detoxification and set screen-free intervals, can greatly enhance students' academic performance and general well-being when included into institutional wellness programs. This research has limitations. Its cross-sectional nature makes it impossible to draw conclusions about causality, and depending too much on self-reported online data might lead to bias and leave out kids without internet access. To improve the generalizability of results and clarify causal relationships, future research should strive to employ longitudinal approaches and a more diverse sample strategy.

Conclusion

The main behavioral and psychological elements that affect sleep quality among State name's Generation Z students are highlighted in this study. Inadequate sleep, inconsistent patterns, and delayed sleep start are caused by excessive screen time, scholastic demands, and conditions like anxiety. Academic achievement, emotional stability, and cognitive function are all adversely affected by these disruptions. Effective techniques including digital detox regimens, sleep hygiene education, and cognitive-behavioral therapy are crucial to addressing these problems. Promoting physical activity, mindfulness, and aromatherapy can also enhance the quality of your sleep. By putting in place tailored sleep assessments and educational programs, institutions may improve the sleep health of their students, fostering long-term health and enhancing academic performance and well-being. This study emphasizes how crucial customized wellness initiatives are for this demographic. Future research should examine how these therapies improve sleep over the long run and take into account genetic and environmental variables. Improving Generation Z's quality of life and academic performance requires addressing their sleep.

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