

Article

Problematic TikTok Use and Its Association with Poor Sleep: A Cross-Sectional Study Among Greek Young Adults

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Abstract: Background: TikTok use is constantly increasing, especially among young adults. Although there is a negative association between problematic TikTok use and users' health, no study until recently has investigated the association between TikTok use and poor sleep. Thus, this study aimed to evaluate TikTok use among young adults and its association with poor sleep. Methods: A cross-sectional study was conducted in Greece. The study sample included 361 adults aged 18–35. A convenience sample through social media was employed. Levels of TikTok use among participants were measured with the TikTok Addiction Scale (TTAS). Results: The mean time of TikTok use was 2.4 h (SD; 1.6), while the mean TTAS score was 2.3 (SD; 0.7). The 11.6% of the participants are problematic TikTok users. A negative correlation between the duration of night sleep and levels of TikTok addiction was found. Also, a positive correlation between sleepiness in work or class and levels of TikTok addiction was found. Furthermore, younger ages were correlated to increased levels of TikTok addiction and time on TikTok. The levels of TikTok addiction were higher among females. Conclusions: This study suggested that higher levels of TikTok addiction and TikTok use were correlated with reduced duration of night sleep and increased sleepiness in work/class.

Keywords: TikTok; TikTok Addiction Scale; problematic use; young adults; poor sleep



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1. Introduction

Social media are constantly becoming more and more addictive. The new, advanced algorithms of extreme accuracy concerning the preferences of users have led to the ultimate intrusion of social media in our daily lives and especially in young people's routines [1,2]. Within the last few years, social media has reached every corner of the world, from entertainment to business, marketing, and political purposes, with an estimated number of five billion registered users worldwide. Hierarchically, in numbers, China comes first, followed by India, the USA, and Europe, with approximately 680 million European users [3].

It seems that TikTok is the most famous application among young people, especially among generation Z, since 35% of TikTok users are between 16 and 24 years old. Furthermore, the total number of 1.5 billion TikTok users per month denotes the great penetration of this application among social media users [3]. These numbers can be explained in the context of addiction as follows: the recognition that the users obtain via followers stimulates their dopaminergic system; this system is responsible for pleasure because of the reward

mechanism, which leads to addictive behaviors and the intense need to repeat these actions that provoke the pleasure on the first place [4,5].

In general, TikTok users can create videos for up to 60 s or just watch other users' videos. The application was launched back in 2016, and it has been reported that there are approximately 1.08 billion active users internationally. Furthermore, it is reported that 90% of TikTok users visit it on a daily basis. The average time spent daily is estimated to be 52 min [6,7].

Most of the reasons that individuals keep using TikTok are harmless, such as filling spare time or seeing what is being talked about. Yet, prolonged use of TikTok is a matter of concern since the mean daily time spent varies from 52 to 150 min or even more [3,8]. It is indicated that time reduction, even just a week's break, or total abstention from social media (including TikTok) can improve the well-being, depression, and anxiety of individuals [9].

Prolonged use of TikTok is associated with body dissatisfaction and damaged body image, especially among women, leading to mental issues such as stress, depression, and low self-esteem [10–13]. Moreover, the literature suggests that even body-positive videos on TikTok cannot serve their purpose since the promotion of ideal but unrealistic body standards may lead to major mental issues [14,15]. It is crucial that since the majority of TikTok consumers refer to the vulnerable age of youth, adverse effects on youth mental health and well-being may arise, and things might get complicated concerning issues of poor mental health, self-esteem, depression, and insecurity [8,9].

Yao et al. found that the excessive use of TikTok increases the levels of social anxiety and distress [16]. Furthermore, it is supported that the short video flow enhances the addiction and indirectly reduces the learning motivation and the well-being of users [17]. Also, according to a similar study by Zhang et al. concerning short video addiction among university students, it was found that depression, anxiety, neuroticism, agreeableness, and extraversion are correlated to short video addiction. Zhang et al. employed a sample of 804 university students in China with age from 18 to 22 years old [18]. In addition, problematic TikTok use is characterized by concentration and time distortion since users are absorbed in the online world and thus are distracted from real life [19]. Moreover, the systematic TikTok use brings negative effects to users, such as hazardous alcohol consumption and increased gambling [20]. Also, medium and high TikTok use is associated with addictive behaviors and mental problems [21].

According to the study of Chao et al. between a non-addicted and an addicted sample to TikTok, results showed worse mental health for the addicted sample. In particular, the authors included 1346 adolescents across three schools in China with a mean age of 14.97 years. Scholars categorized participants into non-users, moderate users, and addictive users based on their engagement with short video platforms. The authors used the Smartphone Addiction Scale to define addictive users by applying cut-off points for the total score (females = 33; males = 31). Several statistical tests, such as Pearson's correlation coefficient, Spearman's correlation coefficient, independent samples *t*-test, analysis of variance, and chi-square test, were used to identify differences between non-users, moderate, and addictive users. Authors found that addictive users were related to an outrageous number of issues, such as mental issues (e.g., depression, anxiety, stress, and loneliness) and social difficulties (e.g., social anxiety, attention problems, and lower life satisfaction). Furthermore, addicted users faced more stress and poorer performance in their academic lives, more bullying, and victimization. Also, it was found that TikTok-addicted users experience worse parental relationships, negative parenting styles, and lower parental education levels in contrast with the non-addicted sample. Lastly, the individuals with addictive behavior to TikTok seemed to experience poor sleep quality [22]. Several factors are the predictors of the addictive and problematic use of short videos. In short, such

factors are categorized into three main categories: individual factors (including personality, usage expectations, behavior, etc.), the social environment that surrounds the users, and finally, factors that refer to social media [23].

The literature supports the negative impact of sleep disturbances on individuals' health. For example, a meta-analysis showed that sleep disturbances can increase the risk of dementia, Alzheimer and vascular dementia [24]. It is also supported that there is a bidirectional relationship between sleep disorders and migraine [25]. Additionally, the literature supports that a variety of sleep disorders (i.e., narcolepsy, central sleep apnea, obstructive sleep apnea, and insomnia) result in different cardiovascular outcomes, such as acute coronary syndrome, hypertension, cardiovascular mortality, and coronary artery calcification [26].

Moreover, prolonged use of screens that produce blue light (such as mobile phones, tablets, and computers) is responsible for several sleep disorders, such as insomnia, disoriented circadian cycle, and sleeplessness [27,28]. A systematic review included studies with school-aged children and adolescents and found a negative association between screen time, especially at night, and sleep quality [29].

Since TikTok users invest so much of their time in front of a screen, it is a matter of concern what the quality of their sleep is. For instance, Al-Garni et al. found that 34.7% of their participants suffered from poor sleep. It was also found that the excessive use of social media among students, especially TikTok use, was a significant predictor of poor sleep [30,31]. Al-Garni et al. employed a sample of 961 students in Saudi Arabia with a mean age of 16.7 years. Among them, 59.3% were females, while 80% used TikTok, 77.9% used Snapchat, 63.8% used Instagram, and 58.8% used YouTube. The authors used the Pittsburgh Sleep Quality Index, which is a self-report tool that assesses sleep quality over the last month. Students with a total score of more than 7 points on the Pittsburgh Sleep Quality Index were considered to have poor sleep quality, while those with a total score of 7 points or less were considered to have good sleep quality. Moreover, another study in China found that 86.1% of participants delay their nighttime sleep by using TikTok, and they experience poor sleep quality due to expanded TikTok use [32].

A meta-analysis suggested that problematic TikTok use is associated with poor sleep quality [33]. On the other hand, physical activity is a protective factor against bedtime delay and poor sleep [32,34–36]. Yet, it is found that physical activity is usually eliminated among TikTok users, leading to increased sleep disorders [32,35,37]. Several studies showed that individuals who use social media more often engage in less frequent physical activity [37–40]. For instance, Faust et al. employed a sample of 125 adolescents and young adults with a mean age of 19.7 years and found that time spent on Instagram, YouTube, and TikTok is linked with reduced physical activity [37]. Excessive social media use may present a silent health risk for individuals since it reduces physical activity and increases sedentary behavior.

A recent systematic review included studies with young participants and found a significant association between excessive social media use (including TikTok) and poor sleep quality. In addition, the authors found that frequent social media use is a predictor of poor sleep [41]. These findings are also confirmed by another systematic review where authors found that social media use is associated with short sleep duration and poor sleep quality. This review investigated the association between social media use and several sleep outcomes, such as delayed bedtime, sleep duration (early awakening or sleep disturbance), daytime tiredness, sleep deficits, and sleep quality [42].

In this context, the aim of this study was to evaluate TikTok use among young adults in Greece and its relationship with poor sleep. All studies until now that have investigated sleep outcomes in relation to social media use have measured social media use in total,

including all media simultaneously. In other words, these studies have not been investigating the sole effect of TikTok use on sleep outcomes, and thus, scholars have not separated the impact of TikTok from other social media. Therefore, to the best of our knowledge, this is the first study that examines the association between TikTok use only and poor sleep. Moreover, this study measured levels of TikTok use for the first time among users in Greece.

2. Materials and Methods

2.1. Study Design and Participants

A cross-sectional study was conducted in Greece. The sample included 361 adults aged 18–35 years old. A convenience sample was employed through social media, i.e., TikTok, Instagram, and Facebook. An online version of the study questionnaire using Google Forms was created and disseminated through social media. Data collection was performed during July 2024. All adults aged 18–35 who understand the Greek language could participate in this study. Also, participants should have a TikTok profile to participate in this study. This study excluded participants without a TikTok profile and those aged over 35 years old. The Reporting of Observational Studies in Epidemiology (STROBE) was applied [43]. G*Power v.3.1.9.2 was used to calculate the sample size. Considering a small effect size between TikTok use and poor sleep (correlation coefficient = 0.2), a confidence level of 95%, and a margin error of 5%, the sample size was estimated at 314 participants.

2.2. Measurements

Gender, age, and the time the participants spent on TikTok were measured. The time spent on TikTok was self-reported by participants. Moreover, this study measured poor sleep with two questions. First, participants reported the number of hours that they usually sleep when they have to go to their work/class the next day. Then, participants reported how sleepy they felt at work/class. Answers were on a five-point Likert scale: not at all (1), a little (2), moderate (3), a lot (4), and very much (5).

The TikTok Addiction Scale (TTAS) was used to measure levels of TikTok use among participants [44]. The TTAS measures the attitudes of TikTok users during the last 12 months. In particular, the TTAS comprises 15 items such as “I think about how I could reduce my work/study to spend more time on TikTok”, “I have had difficulties closing TikTok”, and “I use TikTok so much that it has had a negative impact on my work/study”. The TTAS includes six factors: salience, mood modification, tolerance, withdrawal symptoms, conflict, and relapse. Salience refers to users’ preoccupation with TikTok, while mood modification refers to TikTok’s ability to improve mood. Moreover, tolerance covers the fact that TikTok users need to use it more and more to be satisfied, while withdrawal includes users’ negative feelings when TikTok use is discontinued. Additionally, the fact that TikTok use may cause problems in everyday activities refers to conflict, while relapse refers to the fact that users revert to previous patterns of TikTok use after abstinence [45]. All answers are on a five-point Likert scale from 1 (very rarely) to 5 (very often). The total score on the TTAS and the six factors range from 1 to 5. Higher scores indicate higher levels of TikTok addiction. Developers of the TTAS suggested a cut-off point of 3.23 to distinguish TikTok users [46]. Thus, a TTAS score ≥ 3.23 indicates a problematic TikTok user, while a score < 3.23 indicates healthy users. Higher scores on the TTAS indicate a higher probability of problematic TikTok use, and thus, users with a score greater than 3.23 should be further examined by mental healthcare professionals. A recent study showed that the TTAS has great reliability and validity. In particular, Cronbach’s alpha for the TTAS was 0.91, while Cronbach’s alpha for the six factors ranged from 0.62 to 0.86. Moreover, the intra-class correlation coefficient for the scale was 0.99 in the test-retest study. Additionally, exploratory and confirmatory factor analysis revealed that the six-factor model of the TTAS was valid.

Also, the scale showed great concurrent validity since correlation coefficients between the TTAS and several other scales (i.e., Bergen Social Media Addiction Scale, Patient Health Questionnaire-4, and the Big Five Inventory-10) were statistically significant [44]. In this study, Cronbach's alpha for the TTAS was 0.90, while Cronbach's alpha for the six factors was higher than 0.60.

2.3. Ethical Issues

The personal data of the participants were not collected. Participants were informed about the aim and design of this study. We asked participants if they agreed to participate, and thus, we obtained their informed consent. The Ethics Committee of the Faculty of Nursing, National and Kapodistrian University of Athens (approval number 510, June 2024) approved the study protocol. Additionally, the guidelines of the Declaration of Helsinki were applied to the study [47].

2.4. Statistical Analysis

Categorical variables were presented as counts and percentages, while continuous variables were presented with mean, standard deviation, median, and range. The Spearman correlation coefficient was used to estimate the correlation between the TTAS and poor sleep. Also, the Pearson correlation coefficient was used to estimate the correlation between the TTAS and age. The independent samples *t*-test was used to identify differences between genders according to the TTAS and time of TikTok use. Moreover, the chi-square test was used to compare categorical variables. Additionally, the chi-square trend test was used to examine differences based on gender and subjective sleepiness. Since we performed several correlation tests, we applied the Bonferroni adjustment to correct for multiple comparisons. Thus, *p*-values less than 0.0016 were considered statistically significant. The IBM SPSS 21.0 (IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY, USA: IBM Corp.) was used for the analysis.

3. Results

3.1. Demographics

Table 1 shows the demographic characteristics of the sample. Of the participants, 83.1% (*n* = 300) were females, and 16.9% (*n* = 61) were males. The mean age was 23.3 years (standard deviation: 4), while the median age was 22 years (range: 17).

Table 1. Demographic characteristics of the sample.

Characteristics	Count	Percentage
Gender		
Males	61	16.9
Females	300	83.1
Age (mean, standard deviation)	23.3	4.0
Nighttime duration	6.4	1.0
Sleepy at work/class		
Not at all	14	3.9
A little	108	29.9
Moderate	134	37.1
Quite	95	26.3
Very	10	2.8

The mean duration of night sleep was 6.4 h (standard deviation: 1). Among participants, 3.9% (*n* = 14) reported that they do not feel sleepy at work/class, 29.9% (*n* = 108) reported that they feel a little sleepy, 37.1% (*n* = 134) reported that they feel moderately

sleepy, 26.3% ($n = 95$) reported that they feel quite sleepy, and 2.8% ($n = 10$) reported that they feel very sleepy.

There was no difference in subjective sleepiness between the two genders ($p = 0.594$). In particular, among females, 31.0% reported that they feel quite/very sleepy, 34.3% reported that they feel moderately sleepy, and 34.6% reported that they feel not at all/a little sleepy. Moreover, among males, 19.7% reported that they feel quite/very sleepy, 50.8% reported that they feel moderately sleepy, and 29.5% reported that they feel not at all/a little sleepy.

3.2. TikTok Use

The mean time of TikTok use was 2.4 h (standard deviation: 1.6), while the median time was 2 h (range: 7.9). The mean TTAS score was 2.3 (standard deviation: 0.7), while the median was 2.3 (range: 3). Descriptive statistics for the TTAS are shown in Table 2. The mean score for the factors “mood modification” and “tolerance” was the highest, followed by the factors “conflict” and “salience”. The lowest mean score was for the factors “relapse” and “withdrawal symptoms”.

Table 2. Descriptive statistics for the TikTok Addiction Scale.

Factor	Mean	Standard Deviation	Median	Range
TikTok Addiction Scale	2.3	0.7	2.3	3
Salience	1.8	0.8	1.5	3.5
Mood modification	3.4	0.9	3.5	4
Tolerance	3.0	1.0	3.0	4
Withdrawal symptoms	1.3	0.6	1	2
Conflict	2.3	1.0	2.3	4
Relapse	1.7	0.9	1	4

In this sample, 11.6% ($n = 42$) of the participants had a mean TTAS score ≥ 3.23 , indicating problematic TikTok users, while 88.4% had a mean TTAS score < 3.23 , indicating healthy users.

3.3. Associations Between Study Variables

Correlations between the TTAS, time of TikTok use, age, duration of night sleep, and sleepiness in work/class are shown in Table 3. A negative correlation was found between the duration of night sleep and levels of TikTok addiction. In particular, a negative correlation was found between the duration of night sleep and the score on the “conflict” factor ($r = -0.19$, p -value < 0.0001). Also, a positive correlation between sleepiness in work/class and levels of TikTok addiction was found. There was a positive correlation between sleepiness in work/class and scores on TTAS ($r = 0.29$, p -value < 0.0001), “mood modification” factor ($r = 0.31$, p -value < 0.0001), “tolerance” factor ($r = 0.28$, p -value < 0.0001), and “conflict” factor ($r = 0.28$, p -value < 0.0001).

Younger ages were correlated with increased levels of TikTok addiction and time of TikTok use. We noticed this negative relationship between age and scores on TTAS ($r = -0.28$, p -value < 0.0001), “salience” factor ($r = -0.21$, p -value < 0.0001), “mood modification” factor ($r = -0.31$, p -value < 0.0001), and “conflict” factor ($r = 0.28$, p -value < 0.0001).

Table 4 shows the association between gender, TTAS, and time of TikTok use. The levels of TikTok addiction were higher among females than males. In particular, females showed higher mean scores than males regarding TTAS (2.4 vs. 2.1, p -value = 0.01), “salience” factor (1.9 vs. 1.6, p -value = 0.01), “mood modification” factor (3.5 vs. 3.2, p -value = 0.02), and “withdrawal symptoms” factor (1.4 vs. 1.2, p -value = 0.03). Also, the mean time of TikTok use was higher among females than males (2.5 vs. 2.1, p -value = 0.03).

Table 3. Correlations between the TikTok Addiction Scale, time of TikTok use, age, duration of night sleep, and sleepiness in work/class.

Variable	Duration of Night Sleep	Sleepiness in Work/Class	Age
TikTok Addiction Scale	−0.14 **	0.29 ****	−0.28 ****
Salience	−0.15 **	0.12 *	−0.21 ****
Mood modification	−0.06	0.31 ****	−0.31 ****
Tolerance	−0.07	0.28 ****	−0.10
Withdrawal symptoms	0.01	0.05	−0.16 **
Conflict	−0.19 ****	0.28 ****	−0.31 ****
Relapse	0.01	0.09	−0.15 **
Time of TikTok use	−0.01	0.07	−0.24 ****

* p -value < 0.05. ** p -value < 0.01, **** p -value < 0.0001.

Table 4. Association between gender, TikTok Addiction Scale, and time of TikTok use.

Variable	Males		Females		p -Value ^a
	Mean	Standard Deviation	Mean	Standard Deviation	
TikTok Addiction Scale	2.1	0.6	2.4	0.7	0.01
Salience	1.6	0.6	1.9	0.8	0.01
Mood modification	3.2	0.8	3.5	0.9	0.02
Tolerance	2.8	1.1	3.1	1.0	0.13
Withdrawal symptoms	1.2	0.4	1.4	0.6	0.03
Conflict	2.1	0.9	2.4	1.0	0.05
Relapse	1.5	0.8	1.8	0.9	0.07
Time of TikTok use	2.1	1.3	2.5	1.7	0.03

^a independent samples t -test.

Thirteen percent ($n = 39$) of females were problematic TikTok users, while the respective percentage for males was 4.9% ($n = 3$) (p -value = 0.07).

4. Discussion

The ever-growing TikTok use, especially by young people, raises the need to investigate its effects on users' health. In this context, we conducted a cross-sectional study in July of 2024 to investigate the association between TikTok use and poor sleep. A convenience sample of 361 adults aged 18–35 years old was used. Data were collected through social media, i.e., TikTok, Instagram, and Facebook, by creating an online version of the study questionnaire using Google Forms.

This study was the first to examine the association between TikTok use and poor sleep, aiming to enlighten research on this field. Therefore, as there are few similar studies in the literature, the findings of this study will be discussed and interpreted according to studies that investigated the relationship between social media use and sleep quality.

Concerning the nighttime sleep duration, this study suggested that the mean time was 6.4 h. Considering that the nighttime sleep duration recommendations for young adults are 7–9 h [48,49], the findings of this study indicate a sleep deficiency. Furthermore, 37.1% of the sample stated that they felt moderately sleepy, while 23.3% felt quite sleepy, and 2.8% reported that they felt very sleepy. Similar studies confirm these findings since scholars found that daily social media use is associated with sleep disturbances such as poor sleep quality and quantity [33,41,50–52]. These findings may be explained by the fact that TikTok and social media users are bound to expose themselves to blue light screens, which are responsible for sleeplessness and sleep disturbances [27–29]. Moreover, excessive social media use may have important consequences, such as sleep disturbances and sleep

deprivation [53]. Lastly, the time that the users devote to social media reduces or even excludes them from other activities, such as physical activity, which work beneficially for the sleep procedure [32,34–36].

The mean time of TikTok use was 2.4 h in this study, while the highest mean scores per factor are attributed to “mood modification” and “tolerance” followed by the factors “conflict” and “salience”. The lowest mean score was for the factors “relapse” and “withdrawal symptoms”. By further elaborating mean scores for the factors of the TTAS, this study showed that TikTok causes problems mainly related to mood modification and tolerance of participants. In particular, problematic TikTok users seem to use it more and more to improve their mood (i.e., salience). Then, increased TikTok use results in reduced tolerance since users need to use TikTok more and more to get satisfied. On the other hand, the low mean scores on the factors “relapse” and “withdrawal symptoms” indicate that participants experienced low levels of relapse and withdrawal symptoms. In other words, users’ negative feelings when TikTok use is discontinued were low. Also, users did not revert frequently to previous patterns of TikTok use after abstinence. The time spent in TikTok in this study agrees with the results from other sources, as the Statista and the study of Al-Garni et al., where the time that accounted for all platforms (Youtube, Facebook, TikTok, Instagram, etc.) was 5 h. So, this result (2.4 h) is between this range of time [3,30].

According to the findings of this study, 11.6% of participants exceeded the cutoff point of the TikTok Addiction Scale (TTAS). This means that 11.6% of this sample belonged to the high-risk group for TikTok addiction. This result can be explained by the physiological pathway that TikTok uses, leading to addiction. It is known that TikTok stimulates the dopaminergic reward system, which is responsible for addictive outcomes [53]. Also, our finding comes across other studies concerning short-video addiction and social media addiction, where 34.2% and 14% of the sample, respectively, were found addicted to social media and TikTok [22,54].

This study showed that the higher the levels of TikTok addiction were, the poorer the night sleep. Several studies and systematic reviews confirm this finding since social media and TikTok use is associated with less sleep at nighttime and sleep disturbances [30,31,42,51,55]. In addition, this study found a positive correlation between TikTok use and sleepiness in work/class. Daytime dysfunction is also an outcome found in other studies [42,56]. Also, the literature suggests that poor sleep quality and sleepiness during the daytime due to excessive social media and TikTok use may result in increased anxiety and stress [31,51,54].

Lastly, this study suggested that younger ages and females were correlated with increased TikTok addiction. These results can be explained in the context that younger people belong to more vulnerable groups and use TikTok more than the older generations [2,3,53]. On the other hand, social media are addressing a major part of its context to women (for example images, beauty products, etc.), leading to higher addiction for females [13–15,57].

This study had several limitations. Since a convenience sample of young adults through a web-based survey was used, we cannot generalize our results. Therefore, selection bias is probable in this study. Further studies with random and stratified samples could add significant information in this field. Also, a cross-sectional study was performed, and thus, causal relationships between TikTok use and poor sleep cannot be inferred. This study provided evidence for the association between study variables, but further research should be conducted in this field to get more valid results. For instance, the cross-sectional design of this study did not allow us to understand whether problematic TikTok use is a predictor of poor sleep or, on the other hand, if poor sleep is a precedent of problematic TikTok use. Therefore, longitudinal studies are necessary to study users’ behaviors through time and extract more valid results. Although a valid tool to measure levels of TikTok addiction

(i.e., the TikTok Addiction Scale) was used, since the tool is a self-reported questionnaire, self-reported bias is probable in this study. Further studies using valid tools in different countries, samples, and settings could further confirm these results. Moreover, significant differences in the gender distribution in this study could introduce selection bias. In particular, most participants were females, and thus, comparisons between genders should be performed with caution. Future studies should include more representative samples from the general population for more valid results. Finally, an assessment of poor sleep was performed through two single items. Moreover, these two items were self-reported measurements and, thus, subjective measurements. Also, we only measured sleep habits on a single occasion without repeated measurements. After all, the measurement of “poor sleep” was a subjective measurement in this study, introducing significant information bias. Future research may improve this measurement by using valid tools to measure sleep quality, such as the Pittsburgh Sleep Quality Index. Additionally, scholars could measure the average sleep duration and TikTok use over a 7-day period or even more to reduce information bias and get more valid measurements of the study variables.

5. Conclusions

This study found that a significant percentage of participants may suffer from problematic TikTok use, and thus, further examination should be done for those. Applying valid tools such as the TikTok Addiction Scale to identify high-risk TikTok users is essential for timely interventions to reduce negative consequences of TikTok addiction. Moreover, this study showed that higher levels of TikTok use were correlated with reduced duration of night sleep and increased sleepiness in work/class. Since the literature on the association between TikTok use and poor sleep is limited, further studies should be conducted to further validate the findings of this study. Additionally, this study had several limitations, such as the cross-sectional nature of data, and thus, the findings should be examined under strict scrutiny. Longitudinal studies should be conducted in the future to further reduce bias in this research field and improve our knowledge.

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