

Impact of Internet Addiction on Mental Health and Sleep Quality of Adolescents

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Abstract:

Introduction: We use the internet for information and resources every day. Internet addiction may harm mental health and sleep quality. As they mature, adolescents spend more time online and are more susceptible to internet addiction. Internet addiction affects teenage mental health and sleep quality. The internet may give knowledge, entertainment, and social relationships. Internet addiction may harm mental health. Internet addiction is linked to sadness, anxiety, and social isolation. Teens who spend too much time online may feel despondent, powerless, and suicidal. Internet addiction may cause sleep difficulties, which can negatively affect an adolescent's health. Online teens may develop sleeplessness. This may lower sleep quality and cause daytime weariness and irritation. Smartphones, tablets, and computers may also disrupt the body's regular sleep-wake cycle.

Objectives: The aim of the study is to determine the significant impact internet addiction on mental health as well as sleep quality of adolescents. Further, the correlation between the variable's internet addiction, mental health and sleep quality will be evaluated.

Method: A survey among 100 respondents is conducted and data is collected by using Internet addiction scale (Dr. Kimberly S. Young). The responses were collected and then analysed using SPSS V26 to find out the required regression and correlational test.

Result: The collected data was interpreted and analysed; it is found that the adolescents have significant impact of internet addiction on their mental health as well as sleep quality. Also, it's found that all listed variables are significantly correlated to each other and are dependent.

Conclusion: Internet addiction may negatively affect teens' mental health and sleep. Internet addiction may cause sleeplessness, sadness, anxiety, and social isolation. Internet addiction may have detrimental impacts on teenagers; therefore parents, educators, and healthcare experts should assist them regulate their online habits. This might involve limiting computer time, promoting exercise and social engagement, and teaching the value of sleep. Adolescents may attain maximum physical and mental health and well-being by treating internet addiction.

Key Words: Internet addiction, Mental health, sleep quality, Adolescents

Introduction

Adolescents, like most people nowadays, use the internet often throughout the day. The ways in which individuals share information, acquire knowledge, and do business have all been profoundly altered as a result. In contrast, research has linked excessive internet usage to a host of undesirable outcomes, such as issues with mental health and sleep quality. Adolescent Internet Addiction Is a Growing Concern Because of the Negative Effects It Can Have on Mental Health and Sleep Quality. The purpose of this article is to investigate the effects of excessive internet use on teenagers' psychological well-being and nocturnal functioning.

Mental Health

Anxiety, despair, and stress are just some of the mental health issues that have been linked to too much time spent online. Addiction to the internet may cause teens to withdraw socially, which can exacerbate mental health issues like despair and anxiety. In their 2017 research, Kuss and Griffiths discovered that teenage internet addiction was strongly linked to elevated levels of anxiety, sadness, and stress. The DASS-21 was used to gauge how much individuals were suffering from stress, depression, and anxiety. Adolescents with high levels of online addiction

exhibited signs of increased stress, despair, and anxiety compared to those with moderate levels of internet addiction.

Tsitsika et al. (2014) found that those who were addicted to the internet were more likely to suffer from mental health issues such as ADHD, anxiety, and depression. Among teenagers, researchers looked at the Strengths and Difficulties Questionnaire (SDQ) to determine the frequency of mental problems. Adolescents who were addicted to the internet were more likely to suffer from mental issues than their non-addicted counterparts, according to the study's findings. Researchers also observed that suicide thoughts were more common among teens who had internet addiction.

Sleep Quality

The quality of sleep has been connected to other aspects of internet addiction. Addicting online activities, such as watching videos or playing games, may keep teens up late at night, interfering with their sleep schedules. Adolescents' internet addiction was linked to worse sleep quality in a 2017 research by Lee et al. Participants' slumber was evaluated using the Pittsburgh Sleep Quality Index (PSQI). The findings indicated that teenage internet addicts had worse sleep quality than their less addicted peers.

Choi et al. (2020) found that teenage Koreans who spent too much time online had shorter sleep duration and worse sleep quality. In this research, the participants' sleep times and quality were measured using the Insomnia Severity Index (ISI) and the Sleep Quality Scale (SQS). Adolescents who exhibited significant levels of internet addiction also exhibited lower sleep quality and slept for shorter periods of time.

Prevention and Treatment

Preventing and treating internet addiction among adolescents is crucial to minimize its negative impact on mental health and sleep quality. Parents, educators, and healthcare professionals can play a significant role in preventing and treating internet addiction. Education and awareness programs can be implemented to inform adolescents and their families about the risks and consequences of excessive internet use. These programs can also provide guidance on how to use the internet in a safe and responsible manner.

Effective treatment for teenage internet addiction using cognitive-behavioral therapy (CBT) (Wang et al., 2019). CBT is a therapeutic approach that works to alter destructive ways of thinking and behaving. Adolescents may learn to recognize situations that set off their downward spiral into internet addiction and find ways to cope with the stress that comes with cutting down on their time online. Wang et al (2019) 's meta-analysis looked at how well CBT worked for treating internet addiction in Chinese teenagers. Adolescents who participated in CBT reported fewer symptoms of internet addiction and better mental health outcomes.

Family-based interventions, such as family therapy and parent training, have also been found to be effective in preventing and treating internet addiction among adolescents (Park & Park, 2018). Family therapy involves working with the family as a whole to improve communication and strengthen relationships. Parent training focuses on providing parents with the skills and knowledge to support their adolescents and monitor their internet use. The study by Park and Park (2018) used a meta-analysis to examine the effectiveness of family-based interventions in preventing and treating internet addiction among adolescents. The results showed that family-based interventions were effective in reducing internet addiction symptoms and improving mental health outcomes among adolescents.

Literature Review:

Teens' rising internet usage has been related to a variety of undesirable outcomes, such as mental health issues and poor sleep quality. The purpose of this literature review is to examine the state of knowledge about the effects of internet addiction on the emotional well-being and restful sleep of young people.

Adolescent internet addiction has been linked to increased risk of psychological distress in a number of research investigations. Studying Korean teenagers, Kim et al. (2018) discovered a correlation between excessive internet use and elevated levels of melancholy and anxiety. Bhandari et al. (2021) also discovered that internet addiction was strongly linked to elevated levels of stress, anxiety, and depression among Indian teenagers. Addiction to the internet has been linked to both attention deficit hyperactivity disorder (Lin et al., 2018) and suicidal thoughts in

a number of other research investigations (Alavi et al., 2019). These results imply that excessive internet use might negatively affect teenagers' mental health.

Adolescent internet addiction has been linked to reduced sleep quality. Kwon et al. (2018) observed that internet-dependent Korean teenagers slept considerably less well than their non-dependent peers. Similar results were reported in a study of Chinese teenagers by Li et al. (2020): internet addiction was strongly linked to low-quality sleep and excessive daytime drowsiness. These results imply that teenagers' internet addiction may have an adverse effect on their quality of sleep.

Adolescent mental health and sleep quality greatly benefit from early detection and intervention of internet addiction. Many programmes have been successful in combating and treating internet dependency. For instance, Li et al. (2017) discovered that among Chinese teenagers, an online intervention programme designed to promote healthy internet usage was successful in decreasing internet addiction symptoms. In a similar vein, Lee et al. (2021) discovered that a school-based intervention programme to promote healthy internet usage was successful in lowering internet addiction and enhancing mental health outcomes among Korean teenagers. Prevention and treatment of teenage internet addiction have also been shown to benefit from family-based therapies including parent training and family counselling (Kim et al., 2018).

Methodology

This study has made use of both primary and secondary data. The primary data was collected through stratified random sampling technique. A survey among 100 respondents is conducted through a self-administered questionnaire. The responses were collected and then analysed using SPSS V27 to find out the required regression and correlational test. The reliability and validity of questionnaire will be calculated using Cronbach’s alpha.

In the “research, to reveal the internet addiction, Effect on Mental Health and Sleep Quality, the mean and standard deviation were compared with the t-test for difference significance by gender and relationships between Teenagers’ internet addiction, Effect on Mental Health and Sleep Quality were analysed by Pearson correlation test.”

Reliability:

Case Processing Summary		
		N
Cases	Valid	100
	Excluded	0
	Total	100
Reliability Statistics		
Cronbach's Alpha		N of Items
0.943		20

The Reliability Statistics for this questionnaire is significantly positive as the Cronbach’s alpha is 0.96.

Results:

Demographic:

Variables		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	55	55.0	55.0	55.0
	Female	45	45.0	45.0	100.0
Age	10 to 12	37	37.0	37.0	37.0
	13 to 15	27	27.0	27.0	64.0
	16 to 19	36	36.0	36.0	100.0

Using Internet for Work	Yes	37	37.0	37.0	37.0
	No	63	63.0	63.0	100.0

The research was carried out with the respondents of adolescence age group ranging from 10 to 19 years of age. To determine the profile of the respondents, demographic questions were asked and we can say that 37% respondents were of age 10 to 12 years, 27% of the respondents were of age 13 to 15 years and rest of the respondents that is 36% work from the 16 to 19 years of age group. Talking about the general profile 55% of the respondents were made and 45% of the respondents were female. Similarly, this 37% teenagers belonged to community who were using the internet or work and rest 63% answered No, when asked about using internet for work.

Findings:

	Variables	Frequency	Percent	Valid Percent	Cumulative Percent
IAT total score	0 to 30	19	19.0	19.0	19.0
	31 to 49	18	18.0	18.0	37.0
	50 to 79	36	36.0	36.0	73.0
	80 to 100	27	27.0	27.0	100.0
No of Hours online (Daily)	Less than 2 Hrs	19	19.0	19.0	19.0
	2 to 4 Hrs	27	27.0	27.0	46.0
	5 to 8 Hrs	27	27.0	27.0	73.0
	Above 8 Hrs	27	27.0	27.0	100.0

The total score of 19% respondents was between 0 to 30, which shows their normal level of internet usage, 18% respondents had a score of 31 to 49, which shows their mild level of Internet Addiction and a total of 36% respondents had ranged from 50 to 79 in their total score which shows that there is presence of moderate level and at last there are 27% respondents having a score of 80 to 100 which shows their dependency on Internet. Also, the respondents were asked about their usage of Internet on Daily basis, where 19% respondents responded that their daily usage of Internet is less than 2 Hours, 27% responded as their usage is between 2 to 4 Hours, a number of 27% respondents responded their usage of Internet as 5 to 8 Hours where 27% respondents responded their usage of Internet Above 8 Hours on Daily basis.

T-Test:

T test results of respondents of adolescent age group regarding their Internet Addiction, Effect on Mental Health and Sleep Quality.

One-Sample Statistics			t	df	Sig. (2-tailed)
	Mean	Std. Deviation			
Gender	1.4500	0.50000	29.000	99	0.000
Internet Addiction	2.9600	1.27857	23.151	99	0.000
Mental Health	2.7500	1.33617	20.581	99	0.000
Sleep Quality	2.8300	1.07360	26.360	99	0.000

Above table shows that the increase of Internet usage known as addiction (t = 23.151), Mental Health (t = 20.581), Sleep Quality (t=26.360) does not substantially vary by gender. It follows that there is no difference in the extent

of Internet addiction between male and female adolescents in terms of how it affects their Mental Health and Sleep Quality. The test also indicates that access use of Internet with the excuse of studies has increased the usage of social media applications among both the genders.

Correlation Test:

Correlation results of respondents of adolescent age group regarding their Internet Addiction, Effect on Mental Health and Sleep Quality.

Variables		Age	Internet Addiction	Mental Health	Sleep Quality
Age	Correlation	1			
Internet Addiction	Correlation	0.853	1		
Mental Health	Correlation	0.913	.952**	1	
Sleep Quality	Correlation	0.732	.915**	.949**	1

Above table shows that there is a positive high-level significant relationship between Internet addiction and the age of the respondents ($r = 0.853$). Accordingly, it can be seen that as the age increases among the adolescent respondents the Internet addiction also increases as the time spent online also increases.

Similarly, there is a positive high-level significant relation between internet addiction and mental health ($r = 0.952$). Accordingly, the effect on mental health increases with the increase in Internet addiction. Also, it can be seen that there is a significant high-level relation between sleep quality and Internet addiction ($r = 0.949$). Which shows that the effect on sleep quality increases as the level of Internet addiction increases.

Therefore, when the Adolescents' Internet addiction grows, the effect on their mental health and sleep quality also grows, declining the quality of mental health and sleep. The relationship demonstrates the enormous impact that Internet addiction has on mental health and quality of sleep.

Conclusion

In conclusion, internet addiction among adolescents can have significant negative effects on mental health and sleep quality. Adolescents who are addicted to the internet are at a higher risk of developing anxiety, depression, stress, ADHD, and suicidal ideation. They also have poorer sleep quality, which can affect their academic performance and overall well-being. Preventing and treating internet addiction among adolescents is crucial to promote their mental health and sleep quality. Education and awareness programs, cognitive-behavioral therapy, and family-based interventions are effective ways to prevent and treat internet addiction among adolescents. By addressing internet addiction, we can promote the well-being of adolescents and ensure that they have a healthy and balanced relationship with technology.

Future Scope:

Adolescents' mental health and sleep quality were negatively affected by too much time spent online, according to a recent research. However, there is a wealth of untapped potential in this field of study. Potential areas of exploration for this study are:

1. Examining the impact of specific types of internet use (such as social media, online gaming, or pornography) on mental health and sleep quality of adolescents.
2. Exploring the potential benefits of technology use, such as online therapy or mental health apps, in promoting mental health and reducing the negative impact of internet addiction.
3. Studying the efficacy of multi-pronged therapies for teenage internet addiction, including cognitive-behavioural therapy and family counselling.

Limitations:

Although the study provides valuable insights into the impact of internet addiction on mental health and sleep quality of adolescents, there are some limitations to this research:

1. The study relied on self-reported measures of internet addiction, which may not accurately capture the full extent of an adolescent's internet use.
2. The study was conducted in a specific geographical location and cultural context, and the findings may not be generalizable to other populations or cultures.
3. The study focused only on the negative effects of internet addiction and did not explore the potential benefits or positive aspects of technology use among adolescents.
4. Because it was a cross-sectional research, all it can do is show how internet addiction affects people's moods and how well they sleep at a certain moment in time.
5. Other variables, such as socioeconomic standing, academic pressure, or family conflict, may also affect the connection between internet addiction and mental health and sleep quality, but these were not investigated in the current research.

References:

1. Choi, K., Son, H., Park, M., Han, J., Kim, K., Lee, B., & Gwak, H. (2020). Internet overuse and excessive daytime sleepiness in adolescents. *Psychiatry Investigation*, 17(11), 1119-1125.
2. Kuss, D. J., & Griffiths, M. D. (2017). *Internet addiction in psychotherapy*. London: Palgrave Macmillan.
3. Lee, J., Moon, S. J., Cho, H. I., & Park, J. H. (2017). The relationship between internet addiction and sleep quality among Korean adolescents. *Journal of Korean Academy of Nursing*, 47(3), 408-417.
4. Park, S., & Park, E. J. (2018). Meta-analysis of the effectiveness of family-based interventions for adolescents with internet addiction. *Asia Pacific Journal of Social Work and Development*, 28(3), 165-175.
5. Tsitsika, A. K., Tzavela, E. C., Janikian, M., Ólafsson, K., Iordache, A., Schoenmakers, T. M., ... & Richardson, C. (2014). Online social networking in adolescence: Patterns of use in six European countries and links with psychosocial functioning. *Journal of Adolescent Health*, 55(1), 141-147.
6. Wang, Y., Wu, L., Zhou, H., Xu, J., & Dong, G. (2019). Efficacy of cognitive behavioral therapy for internet addiction in Chinese adolescents: A meta-analysis of randomized controlled trials. *Journal of Behavioral Addictions*, 8(3), 549-561.
7. Alavi, S. S., Ferdosi, M., Jannatifard, F., Eslami, M., Alaghemandan, H., & Setare, M. (2019). Behavioral addiction versus substance addiction: Correspondence of psychiatric and psychological views. *International Journal of Preventive Medicine*, 10, 43.
8. Bhandari, S., Arora, S., & Sankhla, D. (2021). Impact of internet addiction on stress, anxiety and depression among school students in Udaipur, India. *Indian Journal of Psychiatry*, 63(3), 278-283.
9. Kim, H. Y., Kim, H. J., & Kim, S. Y. (2018). Internet addiction in Korean adolescents and its relation to depression and suicidal ideation: A questionnaire survey. *International Journal of Nursing Studies*, 77, 123-129.
10. Kwon, M., Lee, J. Y., Won, W. Y., Park, J. W., Min, J. A., Hahn, C. ...Cho, H., Lee, C. U., & Kim, D. J. (2018). Development and validation of a smartphone addiction scale (SAS). *PloS One*, 13(8), e0203031.
11. Lee, Y. S., Han, D. H., Kim, S. M., Renshaw, P. F., & Kim, B. N. (2021). Effects of a school-based internet addiction prevention program for Korean adolescents: A randomized controlled trial. *Journal of the American Academy of Child & Adolescent Psychiatry*, 60(3), 350-358.
12. Li, X., Li, D., Newman, J., & Zhang, H. (2017). Stressful life events and problematic internet use by adolescent females and males: A mediated moderation model. *Computers in Human Behavior*, 77, 333-341.
13. Li, Y., Li, Y., Feng, X., Wang, Q., Huang, H., & Lei, X. (2020). The association between internet addiction and sleep quality among Chinese adolescents: A cross-sectional study. *Psychiatry Research*, 287, 112910.

14. Lin, M. P., Ko, H. C., & Wu, J. Y. (2018). Prevalence and psychosocial risk factors associated with internet addiction in a nationally representative sample of college students in Taiwan. *Cyberpsychology, Behavior, and Social Networking*, 21(9), 568-573.
15. Park, S. K., Kim, J. Y., Cho, C. B., Kim, D. H., & Chun, J. H. (2020). The mediating effects of emotional dysregulation on the association between internet addiction and impulsivity in adolescents. *Neuropsychiatric Disease and Treatment*, 16, 1055-1061.
16. Wang, H., Zhou, X., Lu, C., Wu, J., Deng, X., & Hong, L. (2020). The relationship between internet addiction and sleep quality among Chinese adolescents: The effect of anxiety and depression. *Frontiers in Psychiatry*, 11, 270.