Impact of Social Media Addiction on Quality of Sleep among University Students: Gender and Socio-Economic Status are in Focus

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ABSTRACT

The current research was designed to elucidate the impact of frequent use of social media addiction on the quality of sleep-in relation with gender, age and the socio-economic status among university students. For that purpose, a sample of (N=203) students was recruited by using purposive sampling technique. The overall study was quantitative and cross-section research design was used to carry out the study. Two scales were administered to quantify the variables under investigation. The level of social media addiction was measured by using Social Media Addiction Scale (2015) by Tutgun and Deniz and Quality of Sleep was measured by using Sleep Quality Scale by Shin et al (2006). Both of the measures were valid and reliable. The results from the collected data were analyzed by using SPSS. The findings of the study revealed that the overall social media addiction level was higher among female students as compared with male students. Similarly, the quality of sleep was disturbed among female social media addicts. Lastly, the results showed that the individuals belonging upper class were more addict of social media and their quality of sleep was also disturbed. On the basis of the results, this revealed that the social media addition is a silent killer of sleep among the female and upper-class individuals. Hence, it concluded that to improve the sleep quality it is necessary to control the excessive use of social media addiction.

Introduction

Social media is known as a vital digital way of communication and a source of rich knowledge in current era. Particularly, during covid-19 pandemic it served as a companion to every individual. People were restricted at their homes. They socialized themselves by using social-networking websites, sharing and giving feedback to eachother. The students got education by using electronics sources (online learning) via social media etc (Saud *et al.*, 2020).

According to the survey conducted by Jennings et al (2014) 40% individuals use social media for business information sharing, 45% for knowledge sharing and 15% social entertainment among adults and adolescents. The use of social media can be measured by its frequency of its active use, timings spent for its use and many more (Zhong *et al.*, 2021).

Research conducted in Prince Sattam bin Abdul Aziz University Saudia, revealed that 97% students use to use social media and 57% of them consider themselves as social media addict of various sites (Kolhar *et al.*, 2021). Pahore *et al.* (2020) conducted a study to check the relationship of social media addiction with mental health issues among university students. They collected a data from six different Pakistani Universities. The results of their study reported a higher significant correlation of social media addiction with mental health problems.

There are many porn and cons of social media addiction. An old saying prevailed that overuse of anything is harmful and can cause mental health issues in one's daily life. Particularly, the use of social media if addictive can cause many serious health issues for students and one of the most silent killers of their mental health (Kazem *et al.*, 2015).

Research reported that lack of sleep, cognitive impairment is associated with social media addiction among adults and adolescents (Kazem *et al.*, 2015). A frequent use of social media addiction among students has also increased the mental health issues such as stress, anxiety, poor sleep quality and depression (Sumen & Evgin, 2021). The root cause of all mental health of issues is poor sleep quality. Sleep is a behavior that provides energy and vigilance to our mind (Kryger *et al.*, 2011). The level of sleep at saturation point is considered as 6 to 7 hours among adults which is linked with health mind. The frequent use of social media like watching TV, gaming and web surfing is linked with poor sleep and a core risk factor for insomnia and depression among young adults in all over the world (Mondal *et al.*, 2018).

Literature Review

Increase in screen duration, lack of contact with peer groups and poor sleep pattern has increased the mental health issues of young adults in all over the world. University students make up a big share of users in the United States. The relationship of social media addiction and poor sleep quality has been remained a subject of research in recent scenario among the student such as:

A poor sleep quality was reported among university students due to social media addiction (Liu et al., 2017; Wilke et al., 2020). Research conducted in USA reported a higher sleep disturbance among the students with excessive internet surfing (Lin & Sackey, 2015). Research conducted by Alonzo *et al.* (2021) poor quality of sleep among the users of Facebook, snapchat and twitter. Findings reported that they spend more time on social media due to which their quality of sleep was disturbed.

Another study discovered that use of frequent internet is associated with low quality of sleep. This upset sleep pattern increases the stress, depression and anxiety among university students (Cellini *et al.*, 2020). It was revealed that the teenagers who were inclined to the frequent use of internet addiction reported trouble in falling sleep or sustaining their sleep (Zhang *et al.*, 2017). Poor circadian rhythms were reported among those students who were social media addicts (Liu *et al.*, 2017).

Disturbed sleep, depression and anxiety were reported among the female university students who scored higher on social media addition scale (Demirci *et al.*, 2015). A positive relationship of smart phone addiction with depression was found among the female (Goel & Gupta, 2020).

Vernon et al (2015) conducted research to prob the relationship between social media addiction and poor quality of sleep pattern among medical students. The results of their study showed a positive correlation among both variables. A study was conducted in China and reported a higher level of disturbed sleep and other mental issues among those undergraduates who utilized frequent social networking (Xu *et al.*,2020).

Excessive online addiction was significantly correlated with poor quality of sleep among female university students (Lin *et al.*, 2019). Insomnia, sleep apnea and nightmares were positively correlated with higher score on social media addiction scale among university students (Bruni *et al.*, 2015).

Rationale of the Study

The use of social media addiction among young adults is increasing rapidly in all over the world. Due to this rapid increase the young generation is suffering from various psychological and medical anomalies. The use of social media is considered as a significant trigger of sleep disturbance among adults. The researchers are engaged to investigate the effects of this addictive use of media in relation to depression, anxiety and stress but there are rare researches addressing the disturb quality of sleep due to addictive use of social media. To address this gape in literature this research endeavors to find out the level of social media addiction among students and also investigated its relation with sleep quality. The findings of this study will provide a message for young generation to control the excessive social media addiction in order to rescue their sleep and from other mental health issues.

Objectives of the Study

1. To find out the use of social media addiction among male and female university students.
2. To check the quality of sleep among of male and female university students.
3. To compare the use of social media addiction among the individuals of different socio-economic status.
4. To compare the quality of sleep in relation with social media addiction of the individuals with varying socio-economic status.

Hypotheses of the Study

1. Level of social media addiction will be higher among female students as compared with male students.
2. The quality of sleep will be significantly poor among the social media addictive students.
3. Level of social media addiction will be higher among upper class students as compare with middle and lower class socio-economic status.
4. The quality of sleep of upper-class students with higher level of social media addition will be disturbed.

Research Methodology

The research methods used to measure the variables of the study undergoes different stages and procedure. The detail is as under:

Problem Statement of the Study

Sleep refers to as a natural phenomenon and a basic need of human characterized by unconscious sensory activity, lack of muscular and brain activity in which the individual is out of contact with the environment. It provides mental satisfaction, energy and is considered good for IQ. Now a day due to excessive use of social media become a hindrance in maintain the sleep quality among students. This addictive social media use has increased the cases of mental health and also become a cause an academic failure and other psycho-social problems among adults and adolescence. This current research was carried out to check the impact of social media addiction on quality of sleep among students in its core relation with gender and socio-economic status.

Participants of the Study

The participants of the study were the university students screened as social media addicts belonging from different socio-economic status and age groups.

Research Design of the Study

This was a quantitative in nature. The participants included in this study were the young adults with different demographic characteristics belonging to different cultures therefore a cross-sectional research design was used to carry out the research. The initial data collected from the students was consisted on (N=350) students. Only the data of (n=203) students met the inclusion criteria. Therefore, only the (n=203) participants were included in the study. All the participants were the students of Islamia University of Bahawalpur.

Measures and Covariates

Two scales were utilized to quantify the variables of the study. The level of social media addiction was measured by using Social Media Addiction Scale (SMA) developed by TutgunUnal and Deniz (2015). This scale was consisted total 29 items with 0.85 reliability. On the other hand, the level of Sleep Quality was checked by using Sleep Quality Scale developed by Shin et al (2006). This scale was consisted 28 items with internal consistency of 0.92. Furthermore, the level of socio-economic status was measured by the respondent's parental monthly self-reported income. Lower class, Middle class and Upper class was categories <40k, >80k and >150k respectively.

Inclusion and Exclusion Criteria

The students who scored higher on social media addiction scale belonging from different types of socio-economic status were included in this research and those who score normal were excluded from the research sample of the study. The normal cut-off score was considered 60 on social media addiction and 40 on sleep quality scale.

Results of the Study

The results from the collected data are as under:

Table 1: *Showing the Comparison of Social Media Addiction between Males and Females Using T-test*

Gender	N	Mean	Std. Deviation	T-Test Comparison	
				T-Score	P-value
Female	131	89.82	13.83	2.255*	0.025
Male	72	84.38	20.45		

*. $p < 0.05$ and **. $p < 0.01$

Note: This table shows the gender impact and difference for social media addiction by using all sample information collected from the target population.

Table 2: *Showing the Comparison of Sleep Quality between Males and Females Using T-Test*

Gender	N	Mean	Std. Deviation	T-Test Comparison	
				T-Score	P-value
Female	131	44.24	9.70	4.332**	0.000
Male	72	37.43	12.37		

*. $p < 0.05$ and **. $p < 0.01$

Note: This table shows the comparison of sleep quality between male and female respondents selected from the target population.

Table 3: *Showing comparison of Social media addiction for socio economic status*

Socio Economic Status	N	Mean	S.D	95% CI	
				LL	UL
Lower class	7	85.00	13.051	72.93	97.07
Middle class	186	87.96	16.547	85.56	90.35
Upper class	10	88.70	21.598	73.25	104.15
Total	203	87.89	16.641	85.59	90.19

Note: The above table shows the level of social media addiction among the students belonging from different socio-economic status. The results revealed that students belonging all groups of socio-economic status use to use the social media but upper class score higher on the scale.

Table 4 : *ANOVA showing significance regarding socio economic status*

Source of Variation	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	65.860	2	32.930	.118	.889
Within Groups	55871.756	200	279.359		
Total	55937.616	202			

Note: This table shows the comparison of social media addiction according to socio economic status of the respondent students by using all sample information collected from the target population randomly.

Table 5: *Showing comparison of Sleep Quality for socio economic status*

Socio Economic Status	N	Mean	S.D	95% CI	
				LL	UL
Lower class	7	44.29	2.430	42.04	46.53
Middle class	186	41.45	11.255	39.82	43.07
Upper class	10	47.20	12.621	38.17	56.23
Total	203	41.83	11.183	40.28	43.38

Note: The above table showed that the level of sleep quality is poor among the students belonging upper class. Higher the score showed the poor sleep quality.

Table 6 : *ANOVA showing significance regarding socio economic status*

Source of Variation	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	357.975	2	178.987	1.437	0.024
Within Groups	24902.991	200	124.515		
Total	25260.966	202			

Note: This table shows the comparison of sleep quality according to socio economic status of the respondent students by using all sample information collected from the target population randomly.

Discussion

The current study aimed at exploring the relationship between social media addiction with quality of sleep among university students that induce addictive behavior and its harmful effects on person's functioning in various life areas. Moreoverit also aimed to find out the level of social media addiction among university students, the gender difference in severity of use and the belongingness of socio-economic

status were in focus. The first hypothesis of the study was to check the level of social media addiction among gender.

It was hypothesized that "Level of social media addiction will be higher among female students as compared with male students". The results of this hypothesis revealed that the female students scored higher on the scale that showed they are more social media addicts. The average score of female students is 89.92 with standard deviation 13.83 and the average score of male students is 84.38 with S.D 20.45 showing the average score of female respondents is higher having more impact than males. The independent sampling t-test is used for the significance and the test is significant at 5% level. The results of this hypothesis are in line with the previous researches conducted by (Busubul & Rehman,2021). The second hypothesis was aimed to check the quality of sleep among those students who scored higher on social media addiction scale the results reported a poor sleep quality among the sample. The average score of female students is 44.24 with standard deviation 9.70 and the average score of male students is 37.43 with S.D 12.37 showing the average score of female respondents is higher having more than males. The independent sampling t-test is used for the significance and the t-score is 4.332 with p-value 0.000 showing the test is significant at 1% level. The results are in connection with the studies conducted in the past. Such as a study conducted by Lin & Sackey (2015) revealed a higher level of addiction with poor sleep quality among the students. The third and fourth hypothesis was generated to check the level of social media addiction and sleep quality among the individuals belonging to different socio-economic status. The results reported that upper class students were more addict as compared with other groups and their sleep was poor. The average score of lower-class students is 85.00 with standard deviation 13.051 and the average score of middle economic class students is 87.96 with S.D 16.547 and the average score of upper class students is 88.70 with S.D 21.598 showing the average score of middle class respondents is higher having more addiction of social media than other people. The ANOVA test is used for the significance and the F-test score is 0.118 showing the test is not significant. Similarly, the average score of lower class students is 44.29 with standard deviation 2.43, the average score of middle economic class students is 41.44 with S.D 11.255 and the average score of upper class students is 47.20 with S.D 21.621 showing the average score of upper class respondents is higher having more sleep quality than other people. The ANOVA test is used for the significance and the F-test score is 1.437 and p-value 0.024 showing the test is significant at 5% level of significance. The results are in line with the researches in the past. Such as, a study conducted by Nagesh and Naveen (2017) reported the same results.

Conclusion and Study Implications

As revealed from the results of the study it concluded that the excessive use of social media addiction is linked with the disturbed quality of sleep among the university students. Sleep is considered as a primary need of the human beings. A disturbed pattern of sleep leads toward many psychological issues like stress, depression and anxiety. It can result in poor academic grade among the students as well. Parents and teachers can implement the findings of this study by controlling the unnecessary use of social media in order to improve the sleep quality of the young generations. The students can also get benefit from the findings of the study by avoiding the addictive pattern of social media, must improve the sleep and enjoy good mental health.

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