Original Article

The Relationship between Social Media Addiction and Depression in Students of a Private College in Karachi

Shanila Zulfiqar[1], Jehangir Khan[1], Afsha Bibi[2*], Mahboob Ali[1], Sarfaraz Samuel[1], Shabnam Habib[1], Shakeela Saddique[1], Shahtaj[1], Shahid William[1] and Aziz Ur Rehman Yousufzai[1]

[1]Horizon School of Nursing and Health Sciences, Karachi, Pakistan
[2]Arham Institute of Medical Sciences & Nursing Matta Swat, Pakistan

ARTICLE INFO

Corresponding Author:
Afsha Bibi
Arham Institute of Medical Sciences & Nursing Matta Swat, Pakistan
fawad52005@gmail.com

ABSTRACT

In the last two decades, the use of social media has been increased in the world, the addiction of which can affect mental health of the users. **Objective:** To find out relationship between social media addiction and depression among nursing students at a private college in Karachi. **Methods:** An analytical cross-sectional study design was used at Horizon School of Nursing and Health Sciences, Karachi. A total of 85 students were approached using purposive sampling, via google forms. Data were collected using a pre-structured questionnaire consisting of socio-demographic questions, Social Networking Addiction Scale and Centre for Epidemiological Studies Depression Scale. Data were analyzed using SPSS version 26.0. **Results:** Study results showed that 64.7% of the students were in 19-25 years of age, 65.9% were female, 65.9% unmarried, most of them 36.5% were in last year of nursing degree. Moreover, 41.2% students have no addiction while 58.8% were addicted to social media, 20% students had no depression, 15.3% had mild to moderate and 64.7% students had severe depression. A moderate positive relationship was found between social media addiction and depression among nursing students with spearman correlation coefficient (ρ=0.533) and p value < 0.05. **Conclusions:** The study showed a moderate positive correlation between social media addiction and depression. Therefore, there is need of targeted interventions to prevent the nursing students from addiction of social media and subsequently from depression by holding educational seminars in schools and colleges.

INTRODUCTION

In the last two decades use of social media has increased due to its easy availability for almost half of the world population. Out of 7.7 billion people on the globe, almost 3.5 billion have smart phones and access to the internet, making social media platforms utilized by one in three people worldwide. Similarly, social media is also used by the students as well, the addiction of which can impact their mental health and wellbeing [1]. Social media can be defined as different social networks such as Facebook, Twitter, Instagram, WhatsApp, and TikTok, where users can communicate with each other. Students use social media for different academic projects, assignments and for entertainment but it may have negative impact if the person relies completely on it and become addicted [2]. Social media addiction (SMA) is defined as the excessive use of social networking sites that can create psychological effects on an individual like depression, anxiety, and stress [3]. Whereas depression is a common psychological disorder characterized by loss of pleasure and lack of interest in daily routine activities [4]. One of the common mental disorders in the world is depression affecting over 264 million people worldwide. Individuals

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with depression experience significant daily suffering, affecting their daily routine activities and mental health, every year almost 800,000 of depressed people commit suicide, which is the second most common cause of death for young adults[5]. Many former studies have explored the relationship between SMA and depression in people of diverse ages in developed countries[6-12]. A study done at International Islamic University Malaysia(IIUM) showed that 54.3% of nursing students were slightly addicted to social media, 37.0% moderately and 5.3% were highly addicted and a moderately positive correlation was found between SMA and depression [13]. Similarly, another descriptive study was conducted in Afghanistan's Khost province, in 2020, to assess relationship between SMA and depression among university students, study results showed a positive correlation between the two variables [14]. In India, strong positive relationship between stress and internet addiction was found[15]. Similarly, in Mardan, a certain percentage of the students utilized social media sites for entertainment. Facebook was used by 33% of students, WhatsApp 23%, YouTube 21%, Instagram 12%, and Twitter was used by 9% of the students. It was discovered that excessive use of social networks had a negative effect on students' physical and mental health [16]. Similarly, another study showed little correlation of social media with mental health of youth in Karachi[17].

In this modern world, young adults especially students are using social media for the purpose of education, entertainment and interaction with each other, due to its easy availability they can become easily addicted, which can result in poor mental health. In Karachi city, no study has been conducted to investigate the relationship between SMA and depression among nursing students. Therefore, this study will make a contribution to investigating the relationship between SMA and depression among nursing students at a private college in Karachi.

METHODS

An analytical cross-sectional study was conducted at Horizon School of Nursing and Health Sciences, Karachi, Pakistan, in 2023 from October to December. The sample size was calculated through open EPI version 3.9, with a 95% confidence interval and a target population of 350 students; the obtained sample size was 184, response rate was 46% and google form questionnaires were filled by 85 students. Purposive sampling technique was used and all students of Generic BSN who used social media platforms were included in the study and those students who were unwilling or on leave were excluded from the study. Permission was taken from the principal of the college with reference no. HSNHS/2023/371 and written informed consent was taken from the students after they were told

about the objectives of the study. Data were collected through a valid and reliable pre-structured questionnaire with Cronbach alpha value for addiction scale 0.973 and for depression scale was 0.934. The questionnaire consisted of total 3 sections, section I contained of 4 questions of socio demographics, age, gender, marital status, and academic year, section II contained of 'Social Networking Addiction Scale' used to assess addiction level. The scale comprised of 20 questions and all these items were answered on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). A total score was obtained by summing up all the items. The score ranged from 20 to 100 and any mean score above a total score of 60 signified addiction [18]. Last section "Centre for Epidemiological Studies Depression Scale" (CES-D) had 20 questions to identify depression. The scale assessed the students' depressive thoughts, feelings, and actions throughout the previous week. Every question had a score ranging from 0 to 3 indicating how frequently the symptom occurs, the maximum value is 60. The depression was considered as higher the score, greater the depression level. As per the CES-D scale, a mean total score of 22 –60 indicated severe depression; a score of 15–21 indicated moderate depression; and a score of 15 or less indicates the absence of depression. Data were analyzed in SPSS version 26.0, frequency and percentages were computed for demographic variables, and also for SMA & depression. Spearman correlation coefficient test was run with significance level set at p-value <0.05 to find out correlation between SMA and depression. A positive spearman ρ-value specified a positive relationship, negative value negative relationship and 0 value specified no relationship.

RESULTS

Table 1 showed that 64.7% of the students were in 19-25 years of age, 22.4% were 26-32 years and 12.9% were 33-40 years, 34.1% participants were male and 65.9% were female, 34.11% married, 65.9% were unmarried, 25.9% were in 1st year, 28.2% in 2nd year, 9.4% in 3rd year and 36.5% students were in last year of nursing degree.

Table 1: Sociodemographic characteristics of the students

Demographic characteristics	Frequency n=85 (%)
Age	
19-25	55 (64.7%)
26-32	19 (22.4%)
33-40	11 (12.90%)
Gender	
Male	29 (34.1%)
Female	56 (65.9%)
Marital status	
Married	29 (34.1%)
Single	56 (65.9%)

Year of study	
1st year	22 (25.9%)
2nd year	24 (28.2%)
3rd year	08 (09.4%)
4th year	31 (36.5%)

Table 2 showed that 41.2% students had no addiction while 58.8% students were addicted to social media. This table also showed that 20% students had no depression, 15.3% had mild to moderate and 64.7% students had severe depression.

Table 2: Social media addiction and depression among nursing students

Variables	Frequency n=85 (%)
Social media addiction	
No addiction	35 (41.2%)
Addiction	50 (58.8%)
Depression	
No depression	17 (20.0%)
Mild to moderate depression	13 (15.3%)
Severe depression	55 (64.7%)

Table 3 shows the correlation between social media addiction and depression. The table shows the 0.533 Spearman correlation between the two variables with p-value 0.001 which is significance. So, the relationship between social media addiction and depression is positive and significant.

Table 3: Correlation between social media addiction and depression

Social media addiction	Depression
Spearman Correlation	0.533

DISCUSSION

The current study aimed to explore the relationship between SMA and depression among nursing students at a private college in Karachi. In comparison to a similar study conducted by Gupta A et al., (2018), the current study's demographic characteristics exhibit similarities and differences. Both studies found a majority of participants in the 19-25 age group, although the current study had a higher percentage (64.7%) compared to other study with 58%. For the gender distribution, our study comprises higher percentage of females 65.9% and 34.1% male distribution [19], while in a study done by Waqas et al., (2018), a very low percentage of males (0.7%) as compared to females (99.3%) were found in that study [20]. Contrary to these study results, in a study done in Afghanistan vast majority (94.2%) were males and remaining (5.7%) were females, for marital status, 75.7% were single and 24.3% were married, to compare these findings with the present study 34.1% of study participants were married and 65.9% were unmarried, for academic year their finding have lower percentage of junior class and higher percentage of senior class contrary to the present study which showed higher percentage of junior students than seniors [14]. Moving to the frequency findings for social networking addiction, in the present study 58.8% of the participants were addicted to social media while 41.2% were not, in comparison to a similar study conducted on university students in Malaysia found that 73% of them fell into the category of SMA while 27% in no addiction [21]. Similarly, a study done on Iranian students showed that 70.3% of subjects were social media addicted [22]. Contrary to this, according to a study, only 2.5% study participants were addicted to social media, when examining depression scale scores, our study's results align with a study done in Peshawar by Maqsood (2022) with a higher percentage (68.4%) of students with depression [23], similarly present showed larger proportion (64.7%) of participants experiencing severe depression (scores 22-60). To compare with a study done in Saudi Arabia, it showed that only 1.3% had high level of depression, 4.7 % of the participants met the criteria for severe depression, 8.1% experienced moderate depression [24]. Similarly, a study done in USA showed a low percentage (8.8%) participants had severe depression, 21.5% moderate, 29.8% mild while 39.9% had minimal depression [25]. In terms of the relationship between social networking addiction and depression, the present study results aligned with the study conducted by Zaw & Azenal, (2021) which showed moderate positive correlation between social media addition and depression with correlation coefficient (ρ=0.503) which is similar to the present study which also showed moderate positive correlation between the two variables with correlation coefficient (ρ=0.533) [13]. Additionally, the statistically significant p-value <0.05 both of the studies strengthen the assertion that relationship is not coincidental but rather a meaningful connection between the two variables. In contrast to above study findings, a study showed moderate positive correlation between social media usage and depression.

CONCLUSIONS

The study showed a moderate positive correlation between SMA and depression. Therefore, there is need of targeted interventions like educational seminars and other sessions to prevent the nursing students from addiction of social media and subsequently from depression.

Authors Contribution

Conceptualization: SZ, JK
Methodology: JK
Formal analysis: JK, AB, SH, SS
Writing-review and editing: MA, SS, S, SW, AURY

All authors have read and agreed to the published version of the manuscript.

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Conflicts of Interest

The authors declare no conflict of interest.

Source of Funding

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