

Social Media Disorder and its Association with Depression and Self-Esteem among 1st Year Mbbs Students of Vims Ballari. A Cross-Sectional Analytical Study

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Abstract

Introduction: Social Media Disorder(SMD) is an emerging mental health problem of this century with increasing use of gadgets and easy internet excess. This problem becomes more important as it is affecting children and adolescents who are future of our country.

This study aims to determine the prevalence of social media disorder and its association with depression and self-esteem among 1st year MBBS students of VIMS Ballari.

Methodology: a cross-sectional analytical study conducted among 1st year MBBS students of VIMS Ballari. Descriptive summary statistics were calculated, and chi-square test and Pearson's Coefficient of correlation test were done to know the association between SMD and Depression, and SMD and Self-esteem.

Results: Prevalence of SMD was found to be 26.5%. There was a moderate positive correlation between SMD and depression at $r=0.55$ and there was low negative correlation between SMD and self-esteem at $r=-0.38$.

Conclusion: As this mental health problem is treatable the respondents who had SMD and depression were provided with further counseling and timely intervention was done.

Keywords: Depression, Self-esteem, Social Media Disorder, VIMS Ballari.

Introduction

Social media disorder (SMD) is defined as a behavioral addiction and has been associated with

depression, loneliness, narcissism, low self-esteem, poor sleep quality, and low academic performance.¹

And with the growing use of technology (especially internet) in all the fields including

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education (post COVID) the students have become more dependent on gadgets and internet.

And using technology for education purpose is good but it comes with the side effect of students getting addicted to Social media.

Many studies have found that there is a correlation between digital media and mental health.

Social media use becomes problematic when someone views social networking sites as an important coping mechanism to relieve stress, loneliness, or depression. Social media use provides these individuals with continuous rewards that they're not receiving in real life, so they end up engaging in the activity more and more. This continuous use eventually leads to multiple interpersonal problems, such as ignoring real life relationships, work or school responsibilities, and physical health, which may then exacerbate an individual's undesirable moods. This then causes people to engage in the social networking behavior even more as a way of relieving dysphoric mood states. When social network users repeat this cyclical pattern of relieving undesirable moods with social media use, the level of psychological dependency on social media increases.²

Adolescents are rapidly adopting new technologies among all age groups and are most vulnerable to possible negative influences of these technologies³

UNICEF's *State of the World's Children 2017: Children in a Digital World* report reveals that one in three internet users is younger than 18 years and 71% of 15–24-year-olds are online, making them the most connected age group worldwide⁴.

Research has shown that there is an undeniable link between social media use, negative mental health, and low self-esteem.²

Self-esteem has a strong relation to happiness. Although the research has not clearly established causation, we are persuaded that high self-esteem does lead to greater happiness. Low self-esteem is more likely than high to lead to depression under some circumstances.⁵

Our study, thus, aims to determine the prevalence of SMD and its association with depression and

self-esteem among 1st year MBBS students of VIMS Ballari.

Objectives-The overall objectives / aims of the study

1. To find the Prevalence of Social media Disorder among 1st year MBBS Students of VIMS Ballari.
2. To find Association between Social media disorder with Depression and Self-Esteem

Methodology

Study setting- VIMS Ballari.

Study population- 1st year MBBS students

Sampling Technique- Respondent's self-administration technique was used. The study respondents were adequately informed and explained about the purpose of the study

Data collection tools: Semi-structured questionnaire was used. The questionnaire consisted of four parts which included- questions on socio-demographic variables, independent variables, a 9-item social media disorder scale⁷, a 6-item Kutcher Adolescent Depression Scale⁶, and a 10-item Rosenberg self-esteem scale⁵. The first section consisted of the socio-demographic or background variables. The second section consisted of questions on independent variables such as social media use (Yes/No question), type of social media use (Multiple choice question), and frequency of social media use (closed-ended question), internet availability in residence (Yes/No question) and purpose for social media usage (closed-ended question). The third section consisted of an SMD scale with a rating of two (Yes/No). A person was said to have SMD if she/he meets 5 out of 9 criteria (preoccupation, tolerance, withdrawal, persistence, displacement, interpersonal problems, deception, escape, and conflict) of the SMD scale.

The fourth section consisted of 6-item KADS. Zero to-three system with "hardly ever," "much of the time," "most of the time," and "all of the time" scored as zero, one, two, and three, respectively was used. If the total score was at or above six, we said that the individual might have a major depressive disorder, and if the score was below six, then the individual probably was not depressed. The fifth

section consisted of a 10-item Rosenberg self-esteem scale which contained five positively and five negatively worded items (reverse coded); higher scores indicated higher self-esteem. It was a zero to three system with “strongly disagree,” “disagree,” “agree,” and “strongly agree” scored as zero, one, two, and three, respectively, for items 1, 3, 4, 7, and 10 and scored in reverse order for items 2, 5, 6, 8, 9. The scores were summed up and kept on a continuous scale. Higher scores indicated higher self-esteem.

Design of study

A cross-sectional analytical study was carried out using a quantitative method wherein all the variables were assessed simultaneously.

Sample Size

1st year MBBS students of VIMS Ballari i.e., 200 students

Universal sampling technique

Inclusion criteria

1. Students willing to participate in the Study.
2. Students present on the day of Study.

Exclusion criteria

1. Students absent on the day of Study.
2. Students not willing to participate.

Statistical Tests

The data was analyzed using SPSS software version 25. Frequency and percentage were calculated for those data which were categorical in nature.

Chi-square test was done to measure the association between SMD and depression and also between SMD and self-esteem.

Pearson’s correlation test was done to measure the degree of association between them.

Results

Table 1. General Characteristics

Characteristics	Frequency	Percentage
GENDER		
Male	119	64%
Female	66	36%

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	185	100%
Type of family		
Nuclear	139	75%
Joint	46	25%
	185	100%
Type of Stay		
Hostelite	152	82%
Day scholar	33	18%
	185	100%
Age		
17years	3	2.00%
18years	44	24%
19years	89	48%
20years	41	22%
21years	8	4.00%
	185	100%

1. Homemaker	1	1%
2. Business	30	16%
3. Services	88	47%
4. Labour	11	6%
5. Agriculture	47	25%
6. Others	8	5%
	185	100%

Mother’s Occupation		
1. Homemaker	132	71%
2. Business	0	0.00%
3. Services	22	12.00%
4. Labour	5	3.00%
5. Agriculture	0	0.00%
6. Others	26	14.00%
	185	100%

BMI		
Normal	88	47.60%
Obesity	26	14.10%
Overweight	26	14.10%
Underweight	45	24.30%
	185	100%

Table no. 2 Social Media Characteristics

Characteristics	Frequency	Percent
Average Time Spent on Social Media		
1-3 hours	106	57.3
4-6 hours	45	24.3
7 hours or more	13	7
Less than 1 hour	21	11.4
	185	100
Data usage form		
Mobile net and Wifi	33	17.8
Mobile net	152	82.2
	185	100
Device used		
Smartphone	185	100
Tablet	19	10.2
Laptop/Computer	9	4.8
Own a Smartphone		
No	12	6.5
Yes	173	93.5
	185	100
Social Media Use		
Facebook	25	13.5
Facebook messenger	11	5.9
Instagram	163	88
Twitter	17	9.1
WhatsApp	154	83.2
YouTube	146	78.9
Gaming app	53	28.6
Other messenger	19	10.2

Continue.....

Purpose of Using Social Media		
Get Updates and News	117	63.2
Messaging or chat/calls	116	62.7
Post your pictures/Videos/Status	56	30.2
Watch your friends posts	83	44.86
Follow a celebrity or an influencer	47	25.4
Watch movies	118	63.7
Watch videos/Reels	120	64.8
Games	70	37.8
Others	25.4	47

Table no.3 Prevalence of SMD

	Yes	No
SMD	49(26.5%)	136%(73.5)
Total	185	

Table no. 4 Prevalence of Depression

	YES	NO
Depressed	39(21.1%)	146(78.9%)
Total	185	

Table no. 5 Correlation between SMD and Depression

	Depressed	Not depressed	Total
Not SMD	16(8.6%)	120(64.9)	136(73.5%)
SMD	23(12.4%)	26(14.1%)	49(26.5%)
Total	39(21.1%)	146(78.9%)	185(100%)
p= 0.00	r= 0.55		

Table no. 6 Correlation between SMD and Self-esteem

	High self-esteem	Low self-esteem	Medium self-esteem	Total
Not SMD	80(43.2%)	17(9.2%)	39(21.1%)	136(73.5%)
SMD	16(8.6%)	13(7%)	20(10.8%)	49(26.5)
Total	96(51.9%)	30(16.2%)	59(31.9%)	185(100%)
P= 0.005	r= -0.38			

Out of 185 respondents, 64% were males and 75% had nuclear family and 82% were hostelites. Most of the students belonged to 19 year. Also 47.6% had normal BMI as shown in Table no.1.

Average time spent on social media was 1-3hrs for 57.3% of the students and 82.2% of the students used mobile net for internet surfing. And all of them used Smartphone but only 93.5% had their own Smartphone.

Most commonly used social media was Instagram 2nd common was whatsapp and then Youtube.

Purpose of using social media was to watch videos/Reels for majority of them and next common was to watch movies as shown in Table no.2.

Prevalence of SMD was found to be 26.5% as shown in Table no.3.

Prevalence of Depression was found to be 21.1% Table no.4.

The chi-square test of independence conducted between SMD and depression showed a statistically significant association between SMD and depression at $p=0.00$, and there was moderate positive correlation between SMD and depression at $r=0.55$ as shown in Table no. 5

The association between SMD and Self-esteem also showed a statistical significance at $p=0.005$, and there was low negative correlation between SMD and self-esteem at $r=-0.38$, which indicates that high level of social media disorder are associated with low level of self esteem as shown in Table no. 6.

Discussion

In this era of Gadgets and easy access to internet SMD has become an emerging mental health problem among adolescents.

And this is the first study conducted in Ballari to know the prevalence of SMD and its association with Depression and Self esteem.

According to our study prevalence of SMD was found to be 26.5% among of 185 participants.

Similar study was done in Kathmandu city among 418 Adolescents of Kathmandu where the prevalence was found to be 35.4%.³

Another study in Saudi Arabia on Prevalence and Determinants of Social Media Addiction among Medical Students in a Selected University in Saudi Arabia: A Cross-Sectional Study showed the prevalence of social media addiction among medical students was 55.2%.⁸

These studies show the significant need to address this problem.

In our Study we have also seen that there is positive correlation between SMD and depression ($r=0.55$) measured at $p=0.00$. which means higher score of SMD leads to higher score depression. This finding is in line with the previous study done in Kathmandu which also showed positive relation between SMD and depression. ($r=0.31$) at $p=0.00$.³

Also another study on association between social media use and depression among U.S. young adults showed social media use was significantly associated with increased depression. and we found that there is negative association between SMD and Self-esteem ($r= -0.38$) measured at $p=0.005$, that is higher level of social media addiction leads to lower self esteem⁹. Which was similar to the previously mentioned Kathmandu study, which also showed negative association between Social media disorder and self esteem ($r=0.099$) at $p= 0.044$.³

In a study conducted in Turkey on Self-esteem and social media addiction level in adolescents: revealed that there is a negative correlation between self-esteem and social media addiction levels in adolescents.¹⁰

Conclusion

The results of this study suggest that approximately one fourth of the students are having SMD and depression. There is significant association between SMD and depression with positive correlation, i.e. as SMD increases depression also increases. It is found that there is significant association between SMD and Self-esteem with negative correlation i.e. as SMD increases self-esteem decreases.

Recommendations

Further in depth studies to know the pattern of SMD and its impact on mental health. As these disorders are treatable, early diagnosis and proper counseling should be given with love and support by family and friends. Students should be taught about healthy coping mechanism to manage stressful situations.

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