



SOCIAL ANXIETY AND SOCIAL-MEDIA ADDICTION IN MEDICAL UNDERGRADUATES: A CROSS-SECTIONAL STUDY.

Psychiatry

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ABSTRACT

Background: Social anxiety is experience of irrational fear in various social situations. People with social anxiety tend to avoid from a particular situation as they fear being judged. Social media addiction refers to excessive urge in using various social media platforms and unable to withhold their use which has a negative effect on an individual's life. **AIM:** This study aims at assessing the social anxiety symptoms and to correlate between social anxiety and social media addiction among medical undergraduates. **Methodology:** This is a cross-sectional study with sample population consisting of medical undergraduates of a tertiary care hospital. Tools used in this study are a semi structured questionnaire for socio demographic details, Leibowitz Social Anxiety Scale (LSAS) and Social Media Addiction Scale-Student Form (SMAS-SF). **Results:** 100 medical undergraduates were included in this study. The sample consists of 63% males and 37% females with mean age of 19.85 years. Mean LSAS score is 45.03 (21.501) and mean SMAS-SF is 72.56 (16.754). Pearson's correlation (0.312) between LSAS scores and SMAS-SF scores is statistically significant. **Conclusion:** This study shows a positively significant correlation between symptoms of social anxiety and social media addiction among the medical undergraduates.

KEYWORDS

INTRODUCTION:

Social anxiety is one of the common anxiety disorders where a person experience's fear or anxiousness in various social situations. It can range from immediate surroundings and familial situations to bigger social situations.^[1,3] People with social anxiety predominantly have the fear of scrutiny. Social anxiety can lead to avoidance of the situation which gives them a sense of relief and well-being. Social anxiety has underpinnings of conditioning to environmental factors and genetic inheritance. Cognitive theory suggests that social anxiety can occur as a result of dysfunctional beliefs due to negative information processing of a particular situation which leads to the fear.^[2]

Addiction is the urge to use a substance or an object despite knowing the harmful effects with qualities of craving, withdrawal, tolerance, functional deterioration with respect to their socio occupational functioning, and continuation of the act in spite of knowing the harmful effects.^[1,3] It develops on the concept of impulsivity and compulsivity which on repeated exposure leads to habit formation.^[7]

The word addiction had always been traditionally attached to substance use. Recently, there had been spread of its horizons to certain behaviours as well, one of which is social media addiction. Social media addiction refers to excessive urge in using various social media platforms and unable to withhold their use which has a negative effect on an individual's life. This is found to be an emerging problem in the recent times due to increased internet access across the world, over the years. Also, many social networking sites had been established in the recent years with the whole idea of increasing connectivity among people across the globe by sharing information, their thoughts and extending support even from distant places.

People with social anxiety tend to back off from a particular situation as they fear being judged and avoid direct contact with similar situation. This may lead to withdrawn behaviour and they may eventually land into mental illnesses which may range from anxiety, depression, gaming disorder and schizophrenia.^[2, 8] As a part of addiction behaviour, social media addiction may occur in them.

Many of the previous studies established the fact that there is a relationship between social anxiety and social media addiction but majority of the literature is from the west. We, therefore, felt a need to conduct a study in establishing the relationship between social anxiety and social media addiction in Indian scenario.

REVIEW OF LITERATURE:

Individuals with social anxiety may socialize online to cope with their

symptoms as suggested in the Social Compensation Hypothesis (Fernandez et al., 2012)^[9] This preference of online interactions over in-person interactions gives them a sense of control in various aspects like immediate responses, physical appearance, non-verbal cues. Also, they can take their time in giving a certain response while communicating with others. (McKenna and Bargh et al., 2000, Caplan et al., 2007; Lee and Stapinski et al., 2012).^[12,10,13] In this continuum, Yen and colleagues (2012)^[14] found that individuals with high social anxiety were shown to have lower social anxiety during online interaction compared to face-to-face interaction.

Erwin and colleagues (2004)^[11] further hypothesized that online interaction may help individuals with social anxiety avoid showing perceived physical symptoms (e.g., blushing, misspeaking). They also found that individuals with social anxiety report that having online interactions make avoiding in person interactions easier. Also, individuals who report spending more time on the internet feel more comfortable interacting online than in person. Additionally, more time spent online was also positively associated with perceived social support online that led to more confidence during in person interactions, but individuals with social anxiety still slightly believe they received this social support from interactions online.

Dobrea and Păsărelu (2016)^[15] conducted a systematic review of research assessing the relationship between social anxiety and social networking, and found that 16 out of 20 available studies had a significant association between social anxiety and social networking. The significant association had mixed results, but a majority of the associations were positive. However, a majority of the studies assessed Facebook specifically, so findings cannot be generalized to all forms of social networking sites.

Casale and Fioravanti (2015)^[16] found a positive relation between social anxiety and problematic internet use relating to social networking sites. In males and females, the need to avoid displaying imperfection mediated the relation between social anxiety and problematic internet use of social networking sites; this may be associated with individuals with socially anxiety concerns about being judged unfavorably. Furthermore, this need of self-presentation being satisfied online might motivate individuals with social anxiety to satisfy their need for communication online rather than in person.

AIM:

This study aims at assessing the relationship between social anxiety and social media addiction among medical undergraduate students.

OBJECTIVES:

- To assess the severity of symptoms of social anxiety in medical

- undergraduates.
- To assess for the severity of social media addiction among medical undergraduates.
 - To correlate the social anxiety symptoms with social media addiction among them.

Inclusion Criteria:

- Students giving valid informed consent with age group of 18 to 22 years.
- Those who do not have any known chronic medical or psychiatric illnesses.

Exclusion Criteria:

- Those who did not give a valid consent.
- Age less than 18 and more than 22 years with any known chronic medical or psychiatric illnesses.

METHODOLOGY:

This is a cross-sectional study done in medical undergraduate students of a tertiary care hospital in a southern state of India. The study was conducted after obtaining approval from the institutional ethics committee and prior valid written informed consent was taken from the study participants. A semi structured proforma was used to obtain socio-demographic data.

Leibowitz social anxiety scale was used for assessing social anxiety symptoms. It is a self-reporting questionnaire and comprises of 2 sub-scales of fear and avoidance. Each sub-scale consists of 23 items. Each item in the scale is scored on a 4-point Likert scale with score of 0 to 3. This scale has good internal consistency.^[5,6]

Social Media Addiction Scale- Student Form for social media addiction. This self-reporting scale was developed by Sahin et al., to measure the degree of social media addiction among the students of age group 17 to 22. The scale is of self-reported type with a total of 29 items categorized under 4 groups, viz., virtual tolerance, virtual communication, virtual problem and virtual information. It is scored on a 5-point Likert scale and has good internal consistency. It was initially developed in Turkish language and had been translated into other languages.^[4] English version had been used in this study. A few Indian studies (Sahithi et.al)^[21] also used this scale and validated their results. The scales had been used only after taking permission from the authors.

Data was analysed using appropriate statistical measures in SPSS version 25.0. Frequencies were calculated for categorical variables. Means and standard deviations were calculated for continuous variables and correlation was done using Pearson's correlation.

RESULTS:

A total of 122 medical undergraduates participated in this study after giving valid written informed consent. Of them, 7 participants did not meet the inclusion criteria and 15 participants did not complete the entire questionnaire. Hence, the data of 100 students had been analysed.

SOCIO-DEMOGRAPHIC DETAILS:

Of the 100 students included in our study, 63% are males (n=63) and 37% are females (n=37) with a mean age of 19.85 (SD=1.38) years. Majority of the sample belongs to the age group of 18 years (n=23) and 21 years (n=23). Most of the sample population comprises of Hindus (n= 81), those belonging to middle socio-economic status (n=92) and students from urban background (n=58). 40% of the sample (n=40) had been constituted by first year students. Table.1 depicts the distribution of the socio-demographic variables.

Table.1: Distribution Of Various Socio-Demographic Variables.

SOCIO-DEMOGRAPHIC DETAILS	FREQUENCY	PERCENTAGE	CUMMULATIVE PERCENTAGE
AGE			
1. 18 YEARS	23	23.0	23.0
2. 19 YEARS	20	20.0	43.0
3. 20 YEARS	21	21.0	64.0
4. 21 YEARS	23	23.0	87.0
5. 22 YEARS	13	13.0	100.0
GENDER			
1. MALE	63	63.0	63.0

2. FEMALE	37	37.0	100.0
BACKGROUND			
1. RURAL	43	43.0	43.0
2. URBAN	57	57.0	100.0
MARITAL STATUS			
1. UNMARRIED	100	100.0	100.0
RELIGION			
1. HINDU	81	81.0	81.0
2. MUSLIM	9	9.0	90.0
3. CHRISTIAN	8	8.0	98.0
4. OTHERS	2	2.0	100.0
SOCIO-ECONOMIC STATUS			
1. LOWER	7	7.0	7.0
2. MIDDLE	90	90.0	97.0
3. HIGH	3	3.0	100.0
ACADEMIC YEAR			
1. FIRST	40	40.0	40.0
2. SECOND	11	11.0	51.0
3. THIRD	29	29.0	80.0
4. FINAL	20	20.0	100.0

SOCIAL ANXIETY AND SOCIAL MEDIA ADDICTION:

Mean score on the Leibowitz Social Anxiety Scale (LSAS) is 45.57 (SD=21.18) (Table.2) with majority of the sample having Mild Social Anxiety (n=33) (Table.3). Scores on Social Media Addiction Scale-Student Form (SMAS-SF) reveal a mean score of 72.56 (SD=16.75) (Table.2). 45.9% of the students (n=34) were found to have low level of social media addiction, followed by medium level of social media addiction constituted by 36.5% (n=27) (Table.4). Most commonly used social media site was found to be Instagram (n=53), followed by WhatsApp (n=21) and YouTube (n=17) (Figure.1). Average time spent on the social media was 3.11 (SD=1.47) hours (Table.2) which was mostly for entertainment purposes (n=33) (Figure.2). In this study, entertainment refers to making of and watching reels.

Table.2: Mean Scores Of Lsas, Smas-sf And Time Spent On Social Media Site

	LSAS score	Time spent using SM site	SMAS-SF score
Mean	45.57	3.11	72.56
Std. Deviation	21.185	1.497	16.754
Minimum	3	1	29
Maximum	93	9	133

LSAS= Leibowitz Social Anxiety Scale, SM= Social Media, SMAS-SF= Social Media Addiction Scale- Student Form

Table.3: Distribution Based On Severity Of Social Anxiety

	Frequency	Percent
no SA	26	26.0
mild SA	33	33.0
moderate SA	18	18.0
marked SA	18	18.0
severe SA	5	5.0

SA= social anxiety

Table.4: Distribution Based On Level Of Social Media Addiction

	Frequency	Percent
No Addiction	8	10.8
Low level	34	45.9
Medium level	27	36.5
High level	3	4.1
Very High level	2	2.7

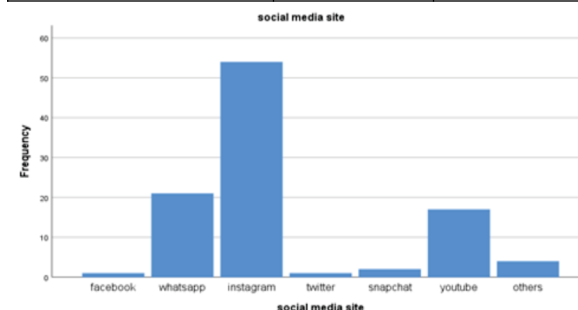


Figure.1: Various Social Media Sites Used By The Students

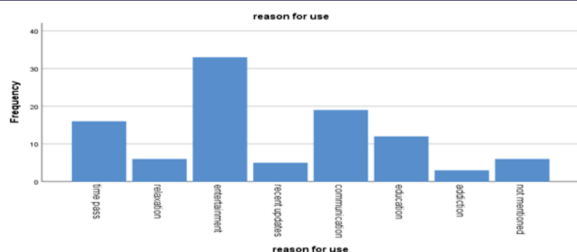


Figure.2: Reasons For Social Media Use

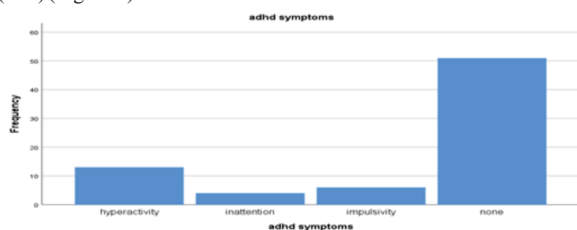
A positive correlation had been found between Leibowitz Social Anxiety Scale (LSAS) and Social Media Addiction Scale- Student Form (SMAS-SF) scores with a Pearson's correlation co-efficient of 0.312 which is statistically significant (Table.5). Majority of the students i.e., 83.8% (n=62) felt normal when not using social media while 12 students reported of feeling restless (n=5) and irritable (n=7).

		LSAS score	SMAS-SF score
LSAS score	Pearson Correlation	1	.312**
	Sig. (2-tailed)		.007
	N	74	74
SMAS-SF score	Pearson Correlation	.312**	1
	Sig. (2-tailed)	.007	
	N	74	74

** . Correlation is significant at the 0.01 level (2-tailed).
LSAS= Leibowitz Social Anxiety Scale, SMAS-SF= Social Media Addiction Scale- Student Form.

COMORBIDITIES:

Out of 74 students who had social anxiety, 45.9% (n= 34) could perceive social anxiety, 29.7% (n=22) reported of having irritability, 33.8% (n=25) had anger issues, 32.4% (n=24) reported to have symptoms of general anxiety and 33.8% (n= 25) expressed depressive symptoms. None of the students reported any substance use. Sleep disturbance was reported by 27% students (n=20). 31.1% (n=24) had reported history of ADHD symptoms in childhood. Among those who reported ADHD symptoms, majority of them had symptoms of hyperactivity (n=13) followed by impulsivity (n=6) and inattention (n=4) (Figure.3).



ADHD= Attention Deficit Hyperactivity Disorder

Figure.3: ADHD Symptoms Among Students With Social Anxiety

SOCIO-OCCUPATIONAL FUNCTIONING:

Of the students with social anxiety symptoms (n=74), 89.2% (n=66) are maintaining cordial relationship with their family members with a happy family environment among 59.5% (n=44). Good peer relations are reported by 78.4% (n=58). 48.6% (n=36) had good academic performance, followed by satisfactory performance by 27% (n=20), poor academic performance by 2.7% (n=2) and 21.6% (n=16) did not share details regarding this.

DISCUSSION:

We analysed 100 medical undergraduates, of which 74 students were found to have symptoms of social anxiety. Such a large sample might be due to the fact that we evaluated for the symptoms of social anxiety and not those who reached the threshold of disorder. No such demarcation has been made in the tools used in our study. Moreover, there has been a surge in the anxiety disorders, one of which is social anxiety, post the COVID pandemic, due to social seclusion. Now that the living is normalizing, there might be some difficulty in social interactions which could have probably reflected in our study. Majority of them were males similar to that mentioned in the literature.^[2] Most of the students were Hindus, belonging to middle socio-economic status from urban background. This could be attributed to the study setting which is a government tertiary care hospital situated in a city of

Southern India. Convenient sampling technique was used in this study which probably led to the inclusion of predominantly first and third year students based on their availability.

In our study, 45.9% undergraduates could perceive anxiety in social situations. Most of them were found to have mild social anxiety (33%) which might be due to the fact that medical profession requires certain amount of social interaction. A low level of social media addiction (45.9%) is observed in these students as they have a busy curriculum which does not allow them to spend more time on social media. The same can be corroborated with the fact that the average time spent using social media was found to be 3.11 hours in our study. A positively significant correlation was found between the two entities as established in the previously available literature (Banerjee et al. and Krutchen et al.).^[2,3] The students could have adopted social media addiction as the coping method as an alternative to avoidance, which is usually seen in social anxiety, due to demands of the profession. This would have resulted in the weak positive correlation found in our study between the two entities. We found Instagram to be the highly used social media site in our study which is in contrast to the study done by Krutchen et al.^[8] This could probably be due to various advances made in the site which enables the students to communicate in multiple ways like sharing text messages, through videos or making reels which corroborates with the reason expressed by these students i.e., entertainment.

We tried to explore a few comorbid conditions of social anxiety that could probably occur in this population like irritability, anger issues, general anxiety and substance use. Irritability, anger issues and general anxiety were found to be around 30% each. No substance use was seen which could be due to under-reporting. Sleep disturbances were reported by 27% students which corroborates with fact established by Ohoyon MM et al.^[18] that social anxiety and problematic internet use are associated with sleep disturbance which is due to increased screen time. 33.8% of the students expressed depressive symptoms which is similar to the study done by Lin Y et al., 2016.^[23] Depression can increase the social media addiction as it provides a platform to escape from the real-life situations and serves as a coping strategy.^[7]

In our study, we also explored regarding any history of ADHD in childhood. We found that 31.1% reported these symptoms which is in par with the previous literature.^[22] We found hyperactivity and impulsivity to be more common. Those with hyperactivity and impulsivity have the tendency to get distracted easily. In this scenario, individuals might get distracted due to continuous notifications received from the social media site that creates an urge to use the site eventually leading to social media addiction.^[7] Thus, ADHD symptoms in childhood add to the vulnerability in the development of social media addiction.

We also assessed regarding socio-occupational functioning of these students in various domains of family relations, family environment, peer relations and academic performance. Majority of them had positive family relation, environment and peer relations which is in contrast with previous studies which say some distress in these domains is present in people with social anxiety and problematic internet use. They also reported good academic performance. This disparity might be due to effective coping by these students which would have arisen from the need of the profession.

STRENGTHS:

- To our knowledge, not many studies had been done previously in India exploring the relationship between social anxiety and social media addiction.
- Sampling was done in-person from all the study participants making the results more reliable.
- The study tools used in here are valid and reliable.
- We included a large sample size making the results more valuable.
- We tried to explore the various comorbidities, precursors and functioning of the students.

LIMITATIONS:

- This is a cross-sectional study.
- Sample population is restricted to one geographical area which decreases the generalizability of the study.
- Convenient sampling technique was used in this study which might introduce selection bias.
- Study tools used here are self-reporting scales which may possibly

lead to information bias.

- Study participants have not been screened for any comorbid illnesses using standardized questionnaire.

CONCLUSION:

This study concludes that there is an increase in symptoms of social anxiety among the students. Also, a positive correlation between social anxiety and social media addiction among the medical undergraduates identifying social anxiety as one of the risk factors for social media addiction.

FUTURE RECOMMENDATIONS:

This study can be done as a longitudinal study in order to strongly establish the cause-effect relationship between social anxiety and social media addiction. A much larger sample from various geographical areas and from the general population can be included to make the results more generalizable.

Conflict of interest: nil

Source(s) of support: nil

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