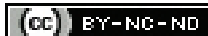


Phubbing Phenomenon and its Determinants among Medical College Students in Greater Noida: A Cross-sectional Study

NEETI PURWAR¹, AMBREN CHAUHAN², AMIT S PAWAIYA³, NEHA TYAGI⁴, HARSH MAHAJAN⁵, SHALINI SRIVASTAVA⁶



ABSTRACT

Introduction: Smartphones and computers provide access to the Internet, which makes us highly reliant on them and leads to phubbing. Phubbing is described as the behaviour of ignoring others by looking at your mobile phone during a conversation with another individual and escaping from interpersonal communication. Almost all medical students have smartphones, so it is imperative to study this behaviour among them.

Aim: To assess phubbing and its determinants among medical students of the School of Medical Sciences and Research, Gautam Buddha Nagar.

Materials and Methods: A cross-sectional study was carried out from July 2021 to September 2021 among medical students of the School of Medical Sciences and Research, Sharda University, Gautam Buddha Nagar, India. A total of 422 MBBS students, who were present during data collection were included. Data were collected using a self-administered

structured questionnaire, consisting of the socio-demographic profile, phubber's characteristics, phubbing scale, smartphone addiction scale, and self-control scale. The data were analysed using frequency, percentage, and unadjusted odds ratio.

Results: A total of 422 MBBS students data were analysed. Mean age, 21.28±1.27 years. The prevalence of phubbing was 42.7 percent in present study. Among them, 151 (83.9%) were college phubbers. On the phubbing scale, the majority of the participants, 306 (72.5%) reported that their phone was always within their reach. There was a significant association found between smartphone addiction (OR: 3.880; 95% CI: 2.290-6.574) and lack of self-control (OR: 1.992; 95% CI: 1.250-3.172) with phubbing.

Conclusion: This study found a high prevalence of phubbing behaviour. The results presented that phubbing is determined by a lack of self-control and smartphone addiction. Findings highlight the need to regulate smartphone and social media usage during college time and at home.

Keywords: Addiction, Communication, Internet, Self-control, Smartphone

INTRODUCTION

Recently, there has been a lot of new technology that allows us to communicate more easily. Some of these new devices include computers, tablets, and mobile phones. Smartphones, which have the properties of pocket computers, hold various features, from the internet to the camera, from writing and drawing programs to game applications. It allows people to connect or communicate with each other from anywhere at any time. Despite these benefits, there is a growing concern that smartphones may sometimes reduce social interactions among individuals. Now-a-days significant proportion of the population at the global level needs smartphones to conduct their everyday lives. Many people cannot live without mobile phones [1,2].

Despite the several benefits of the use of smartphones, dark sides of mobile phone usage are social interaction anxiety, smartphone addiction, and internet addiction. Problematic Internet and mobile phone use have increased significantly over the period. How individuals use cell phones in the presence of their partners impacts the partner's satisfaction with their relationship, which in turn impacts their well-being. This has created new distress in life termed phubbing [3-5].

In May 2012, the dictionary and the McCann Melbourne, an Australian advertising agency, created the word "Phubbing" to describe the behaviour of ignoring others by using your phone. Phubbing is the practice of ignoring someone out in public by focusing on your phone instead of them. Phubbing, or using a mobile device to avoid interpersonal communication while engaging in daily activities like eating, attending meetings or lectures, or socialising with friends and family, can also be defined as the practice of looking at a mobile device while engaging in a conversation with another person [1,6]. Smartphones carrying computer and internet access

features led us to think that phubbing has multiple dimensions like mobile phone addiction, Internet addiction, social media addiction, game addiction, and self-control [7,8].

It has also been seen that only few students use their smartphones for learning, to gain information about the lesson, however, the majority of them use smartphones for personal affairs and this affects the students' learning experience [9,10]. Smartphone addiction and problematic internet use in India are emerging adolescent health problems with the prevalence ranging from 39% to 44% and 21.6%, respectively [11,12]. These not only damage interpersonal skills but also can lead to significant negative health risks and harmful psychological effects on Indian adolescents.

There are also surprisingly very few researches on Phubbing and its predictors conducted in India, but those studies have involved students from a variety of Colleges, including engineering, arts, and commerce [8,10]. None of this research was restricted to enrolling Medical College students. Therefore, this study was undertaken with the aim to assess phubbing and its determinants among undergraduate medical students. The objectives of the study were to estimate the prevalence of phubbing among undergraduate medical students, assess the characteristics of phubbers, and determine the association between smartphone addiction and self-control and phubbing.

MATERIALS AND METHODS

A cross-sectional study was carried out from July 2021 to September 2021 at the School of Medical Sciences and Research, Sharda University, Greater Noida, Gautam Buddha Nagar, India. Undergraduate medical students of the School of Medical Sciences and Research were involved in the study. The aim of the study had been explained to all the study participants and their written

consent was taken before the study. The information thus collected was kept strictly confidential.

Inclusion criteria: All the medical undergraduate (MBBS) students from the first to third professional year who gave consent and were present at the time of data collection during that particular day were included.

Exclusion criteria: Students who did not give written consent and were absent on the day of data collection were excluded.

Sample size: The sample size was calculated using the formula for cross-sectional study design: Z^2PQ/L^2 . Where, $Z=1.96$ (critical value at 95% confidence level of certainty); $P=52\%$ (Prevalence of Phubbing among youth in Hyderabad, India) [10]; $Q=100-P$ (48%); $L=5.2\%$ (10% of P ; relative precision); considering the 10% non response rate, a minimum sample size of 390 was calculated. In present study, 422 MBBS students were enrolled by purposive sampling.

Questionnaire

Data collection: The questionnaire was distributed among all medical students. A structured self-administered questionnaire was developed. The questionnaire was divided into the following segments.

1. Socio-demographic profile of respondents (A modified Kuppusswamy scale 2020 (based on the All India Consumer Price Index for Industrial workers at 338 as of August 2020) was used to assess the socio-economic class) [13].
 2. Characteristics of Phubber's [8].
 3. Scale of phubbing developed by Karadağ E et al., 2015 [1,14].
 4. Phubbing predictor scales: Smartphones addiction scale by Smetaniuk P. [15].
- ii. Self-control scale by Tangney JP et al., [16].

Phubbing scale: A 5-point Likert scale by Karadağ E et al., composed of a total of 10 items measuring:

- Communication Disorders (5 items); and
- Telephone Obsession (5 items), was used. Each item was graded from never to always (1=Never, 2=Seldom, 3=Sometimes, 4=Often, 5=Always). A score of 40 or more indicated an addiction to phubbing [1,14].

Smartphone addiction scale: The Adapted Mobile Phone Use Habits (AMPUH) scale by Smetaniuk P consists of ten items and uses a bivariate scale (yes or no response). Problematic mobile phone use or smartphone addiction exists only if the smartphone user confirms atleast half (five) of the ten items listed [15].

Self-control scale: A 10-item self-scoring, self-control scale adopted from Tangney JP et al., was used. The scale was scored in the form of a Likert scale grading from "not at all like me" to "very much like me." The maximum score on this scale is 5 (extremely self-controlled), and the lowest score on this scale is 1 (not at all self-controlled) [16].

STATISTICAL ANALYSIS

The data were entered into Microsoft Office Excel and Statistical Package for the Social Sciences (SPSS) software version 21.0 (IBM, New York, USA) was used for data analysis. In descriptive statistics frequency, percentages, mean, range, and standard deviation for the continuous variable were calculated. An unadjusted odds ratio and 95% confidence interval were used for analysis to determine the association between smartphone addiction and self-control with phubbing.

RESULTS

A total of 422 undergraduate students participated in the study. The mean age of the participants was 21.28 ± 1.27 years (Range: 18-28 years). The prevalence of phubbing among study participants

comes out to be 42.7 percent. Most of them belonged to the age group of 18-23 years. Majority of the participants, were female. Most of them belonged to the upper class followed by the upper-middle class. No statistical significance was found between phubbing and age, gender, and socio-economic status. The three items of questionnaire and their responses are depicted in [Table/Fig-1].

Socio-demographic variables	Phubbing		Total (%), n=422	Unadjusted odds ratio (95% confidence interval)
	Yes (%), n=180	No (%), n=242		
1. Age group (in years)				
18-23	171 (95.0%)	229 (94.6%)	400 (94.8%)	1.079 (0.451-2.581)
24-28	9 (5.0%)	13 (5.4%)	22 (5.2)	
2. Gender				
Male	79 (43.9%)	99 (40.9%)	178 (42.2)	1.130 (0.765-1.669)
Female	101 (56.1%)	143 (59.1%)	244 (57.8)	
3. Socio-economic status (Modified Kuppusswamy Scale)				
Upper middle	22 (12.2%)	20 (8.3%)	42 (9.9)	1.546 (0.816-2.928)
Upper	158 (87.8%)	222 (91.7%)	380 (90.1)	

[Table/Fig-1]: Socio-demographic profile of respondents (N=422); Questionnaire: 3 items.

Majority of the participants 151 (83.9%), were college phubbers. When they were asked about the device used during phubbing, most of them 159 (88.3%) responded smartphones as the most frequently used device during phubbing. WhatsApp was the most commonly used social media platform during phubbing followed by Instagram. A total of 83 (46.1%) of them reported the duration of phubbing to be 30 minutes and 36 (20%) of those with phubbing present reported more than one hour as the duration of phubbing. The four items of questionnaire and their collected data is depicted in [Table/Fig-2].

Variables	N (%)
1. Place of phubbing	
At the college	151 (83.9)
At home	29 (16.1)
2. Type of device used for phubbing	
Smartphones	159 (88.3)
Ordinary mobile phones	14 (7.8)
Tablets	7 (3.9)
3. Social media platform used during phubbing	
WhatsApp	61 (33.9)
Instagram	49 (27.2)
Facebook	41 (22.8)
Twitter	29 (16.1)
4. Duration of phubbing	
<30 minutes	83 (46.1)
30-60 minutes	61 (33.9)
>60 minutes	36 (20)

[Table/Fig-2]: Characteristics of the phubber's (n=180); Questionnaire: 4 items.

On the phubbing scale, the most common response reported was "My phone is always within my reach" by 306 (72.5%) participants followed by "When I wake up in the morning, I first check the messages on my phone" by 226 (53.6%). On the smartphone addiction scale, the majority of the participants 356 (84.4%) responded that they were pre-occupied with their mobile phones, and 315 (74.6%) responded that they use their mobile phones to escape their problems or lift their mood. The most common response was "I have a hard time breaking bad habits" by 269 (63.8%) on the self-control scale. The three items regarding smartphone addiction, self control and relevant collected data is depicted in [Table/Fig-3].

Type of scale used	Common responses obtained	Phubbing		
		Yes (%) n=180	No (%) n=242	Total (%) n=422
1. Phubbing scale (Karadağ E et al., 2015) [14] (Mean score=31.53±9.20)	My phone is always within my reach.			
	Never	0 (0)	25 (10.3)	25 (5.9)
	Seldom	1 (0.6)	33 (13.6)	34 (8.1)
	Sometimes	13 (7.2)	44 (18.2)	57 (13.5)
	Often	42 (23.3)	53 (21.9)	95 (22.5)
	Always	124 (68.9)	87 (36.0)	211 (50.0)
	When I wake up in the morning, I first check the messages on my phone.			
	Never	1 (0.6)	39 (16.1)	40 (9.5)
	Seldom	1 (0.6)	65 (26.9)	66 (15.6)
	Sometimes	19 (10.5)	71 (29.3)	90 (21.3)
	Often	61 (33.9)	31 (12.8)	92 (21.8)
	Always	98 (54.4)	36 (14.9)	134 (31.8)
	I feel incomplete without my mobile phone.			
	Never	0 (0)	45 (18.7)	45 (10.7)
	Seldom	5 (2.8)	69 (28.5)	74 (17.5)
	Sometimes	20 (11.1)	76 (31.4)	96 (22.7)
	Often	50 (27.8)	26 (10.7)	76 (18.0)
	Always	105 (58.3)	26 (10.7)	131 (31.1)
	My mobile phone use increases day by day.			
	Never	4 (2.2)	68 (28.1)	72 (17.1)
	Seldom	10 (5.6)	87 (36.0)	97 (23.0)
	Sometimes	25 (13.9)	66 (27.3)	91 (21.6)
	Often	60 (33.3)	17 (7.0)	77 (18.2)
	Always	81 (45.0)	4 (1.7)	85 (20.1)
	The time allocated to social, personal or professional activities decreases because of my mobile phone.			
	Never	4 (2.2)	43 (17.8)	47 (11.1)
	Seldom	6 (3.3)	54 (22.3)	60 (14.2)
	Sometimes	34 (18.9)	85 (35.1)	119 (28.2)
	Often	79 (43.9)	42 (17.4)	121 (28.7)
	Always	57 (31.7)	18 (7.4)	75 (17.8)
	My eyes start wandering on my phone when I'm together with others.			
	Never	0 (0)	56 (23.1)	56 (13.3)
	Seldom	5 (2.8)	98 (40.5)	103 (24.4)
	Sometimes	49 (27.2)	76 (31.4)	125 (29.6)
	Often	72 (40.0)	10 (4.1)	82 (19.4)
	Always	54 (30.0)	2 (0.8)	56 (13.3)
	People complain about me dealing with my mobile phone.			
	Never	4 (2.2)	103 (42.6)	107 (25.4)
	Seldom	6 (3.3)	58 (24.0)	64 (15.2)
	Sometimes	44 (24.4)	67 (27.7)	111 (26.3)
	Often	69 (38.3)	12 (5.0)	81 (19.2)
	Always	57 (31.7)	2 (0.8)	59 (14.0)
	I don't think that I annoy my partner when I'm busy with my mobile phone.			
	Never	4 (2.2)	100 (41.3)	104 (24.6)
	Seldom	9 (5.0)	75 (31.0)	84 (19.9)
	Sometimes	42 (23.3)	48 (19.8)	90 (21.3)
	Often	59 (32.8)	12 (5.0)	71 (16.8)
Always	66 (36.7)	7 (2.9)	73 (17.3)	
I am dealing with my mobile phone when I'm with my friends.				
Never	5 (2.8)	77 (31.8)	82 (19.4)	
Seldom	9 (5.0)	91 (37.6)	100 (23.7)	
Sometimes	43 (23.9)	52 (21.5)	95 (22.5)	
Often	80 (44.4)	18 (7.4)	98 (23.2)	
Always	43 (23.9)	4 (1.7)	47 (11.1)	
I'm busy with my mobile phone when I'm with friends.				
Never	1 (0.6)	83 (34.3)	84 (19.9)	
Seldom	4 (2.2)	73 (30.2)	77 (18.2)	
Sometimes	58 (32.2)	69 (28.5)	127 (30.1)	
Often	59 (32.8)	17 (7.0)	76 (18.0)	
Always	58 (32.2)	0 (0)	58 (13.7)	

2. Smartphone addiction scale (Smetaniuk P, 2014) [15] (Mean score=5.82±2.31)	Are you preoccupied with your mobile phone? (Salience)			
	Yes	19 (10.6)	47 (19.4)	66 (15.6)
	No	161 (89.4)	195 (80.6)	356 (84.4)
	Does using your mobile phone help you feel relaxed? (Mood modification)			
	Yes	59 (32.8)	101 (41.7)	160 (37.9)
	No	121 (67.2)	141 (58.3)	262 (62.1)
	Have you made repeated efforts to cut down or stop using your mobile phone? (Relapse)			
	Yes	51 (28.3)	61 (25.2)	112 (26.5)
	No	129 (71.7)	181 (74.8)	310 (73.5)
	Are you restless or irritable when attempting to cut down? (Withdrawal)			
	Yes	57 (31.7)	97 (40.1)	154 (36.5)
	No	123 (68.3)	145 (59.9)	268 (63.5)
	Do you use your mobile phone to escape problems or lift your mood? (Escapism/Dysphoric Relief)			
	Yes	41 (22.8)	66 (27.3)	107 (25.4)
	No	139 (77.2)	176 (72.7)	315 (74.6)
	After a large mobile phone bill, do you continue to use it? (Tolerance)			
	Yes	47 (26.1)	90 (37.2)	137 (32.5)
	No	133 (73.9)	152 (62.8)	285 (67.5)
	Do you lie to others about how much you use your cell phone? (Cognitive distortion)			
	Yes	81 (45.0)	116 (47.9)	197 (46.7)
	No	99 (55.0)	126 (52.1)	225 (53.3)
	Have you ever committed acts (theft) to finance your use of your cell phone? (Resort to antisocial behaviour)			
	Yes	118 (65.6)	144 (59.5)	262 (62.1)
	No	62 (34.4)	98 (40.5)	160 (37.9)
	Has your mobile phone caused you to lose a significant other or job? (Conflict/Loss)			
	Yes	122 (67.8)	140 (57.9)	262 (62.1)
	No	58 (32.2)	102 (42.1)	160 (37.9)
Do you rely on others to relieve financial problems caused by using your mobile phone? (Desperation)				
Yes	138 (76.7)	167 (69.0)	305 (72.3)	
No	42 (23.3)	75 (31.0)	117 (7.7)	
3. Self-control scale (Tangney JP et al., 2004) [16] (Mean score=2.54±0.61)	I have a hard time breaking bad habits.			
	Not at all like me	10 (5.6)	14 (5.8)	24 (5.7)
	A little like me	9 (5.0)	9 (3.7)	18 (4.3)
	Somewhat like me	58 (32.2)	53 (21.9)	111 (26.3)
	Mostly like me	57 (31.7)	78 (32.2)	135 (32.0)
	Very much like me	46 (25.6)	88 (36.4)	134 (31.8)
	I get distracted easily.			
	Not at all like me	13 (7.2)	17 (7.0)	30 (7.1)
	A little like me	35 (19.4)	31 (12.8)	66 (15.6)
	Somewhat like me	45 (25.0)	67 (27.7)	112 (26.5)
	Mostly like me	57 (31.7)	83 (34.3)	140 (33.2)
	Very much like me	30 (16.7)	44 (18.2)	74 (17.5)
	I say inappropriate things.			
	Not at all like me	20 (11.1)	14 (5.8)	34 (8.1)
	A little like me	21 (11.7)	19 (7.9)	40 (9.5)
	Somewhat like me	44 (24.4)	64 (26.4)	108 (25.6)
	Mostly like me	43 (23.9)	74 (30.6)	117 (27.7)
	Very much like me	52 (28.9)	71 (29.3)	123 (29.1)
	I refuse things that are bad for me, even if they are fun.			
	Not at all like me	28 (6.6)	44 (10.4)	72 (17.1)
	A little like me	40 (9.5)	67 (15.9)	107 (25.4)
	Somewhat like me	53 (12.6)	61 (14.5)	114 (27)
	Mostly like me	34 (8.1)	50 (11.8)	84 (19.9)
	Very much like me	25 (5.9)	20 (4.7)	45 (10.7)
	I'm good at resisting temptation.			
	Not at all like me	37 (8.8)	31 (7.3)	68 (16.1)
	A little like me	42 (10.0)	74 (17.5)	116 (27.5)
	Somewhat like me	59 (14.0)	67 (15.9)	126 (29.9)
	Mostly like me	23 (5.5)	44 (10.4)	67 (15.9)
	Very much like me	19 (4.5)	26 (6.2)	45 (10.7)
	People would say that I have very strong self-discipline.			
	Not at all like me	33 (7.8)	45 (10.7)	78 (18.5)
	A little like me	44 (10.4)	51 (12.1)	95 (22.5)
	Somewhat like me	50 (11.8)	77 (18.2)	127 (30.1)

Mostly like me	32 (7.6)	45 (10.7)	77 (18.2)
Very much like me	21 (5.0)	24 (5.7)	45 (10.7)
Pleasure and fun sometimes keep me from getting work done.			
Not at all like me	20 (4.7)	9 (2.1)	29 (6.9)
A little like me	27 (6.4)	32 (7.6)	59 (14.0)
Somewhat like me	54 (12.0)	88 (20.9)	142 (33.6)
Mostly like me	49 (11.6)	78 (18.5)	127 (30.1)
Very much like me	30 (7.1)	35 (8.3)	65 (15.4)
I do things that feel good in the moment but regret later on.			
Not at all like me	22 (5.2)	10 (2.4)	32 (7.6)
A little like me	23 (5.5)	38 (9.0)	61 (14.5)
Somewhat like me	40 (9.5)	66 (15.6)	106 (25.1)
Mostly like me	48 (11.4)	76 (18.0)	124 (29.4)
Very much like me	47 (11.1)	52 (12.3)	99 (23.5)
Sometimes I can't stop myself from doing something, even if I know it is wrong.			
Not at all like me	5 (1.2)	5 (1.2)	10 (2.4)
A little like me	18 (4.3)	24 (5.7)	42 (10.0)
Somewhat like me	60 (14.2)	64 (15.2)	124 (29.4)
Mostly like me	49 (11.6)	73 (17.3)	122 (28.9)
Very much like me	48 (11.4)	76 (18.0)	124 (29.4)
I often act without thinking through all the alternatives.			
Not at all like me	6 (1.4)	16 (3.8)	22 (5.2)
A little like me	28 (6.6)	11 (2.6)	39 (9.2)
Somewhat like me	50 (11.8)	70 (16.6)	120 (28.4)
Mostly like me	62 (14.7)	58 (13.7)	120 (28.4)
Very much like me	34 (8.1)	87 (20.6)	121 (28.7)

[Table/Fig-3]: Responses on Phubbing and Phubbing predictors scale (N=422) [14-16]; Questionnaire: 3 items.

The total of 10 items of questionnaire along with their collected data are represented collectively in [Table/Fig-1-3].

A statistically significant association was found between smartphone addiction and self-control with phubbing. The odds of phubbing being present were 3.9 times higher among participants with smartphone addiction than those without (OR: 3.880; 95% CI: 2.290-6.574). The likelihood of having phubbing status was 1.9 times higher among respondents who had no self-control as compared to those who had self-control (OR: 1.992; 95% CI: 1.250-3.172) [Table/Fig-4].

Predictors	Phubbing		Total (%)	Unadjusted odds ratio (95% confidence interval)*
	Yes (%) [N=180]	No (%) [N=242]		
Smartphone addiction				
Yes	159 (37.7)	160 (37.9)	319 (75.6)	3.880 (2.290-6.574)
No	21 (5.0)	82 (19.4)	103 (24.4)	
Total	180 (42.7)	242 (57.3)	422 (100)	
Self-control				
No	52 (12.3)	41 (9.7)	93 (22)	1.992 (1.250-3.172)
Yes	128 (30.4)	201 (47.6)	329 (77.9)	
Total	180 (42.7)	242 (57.3)	422 (100)	

[Table/Fig-4]: Association between smartphone addiction and self-control and Phubbing (N=422).

DISCUSSION

Now-a-days in many settings, people will be sitting together but would be using their phones and even communicating with others on phone but not having enough conversations with or ignoring the person sitting next to them. Present study was conducted including 422 participants with the objectives to estimate the prevalence of phubbing among Undergraduate medical students, assess the characteristics of phubbers, and determine the association between smartphone addiction and self-control and phubbing.

The mean age of the participants in the current study was 21.28±1.27 years. Among 422 undergraduate medical students, 57.8% for females, and 42.2% for males. A study conducted among young

adults in Lebanon consisted of 461 participants with a mean age of 22.25±2.87 years, similar to the current study [17]. However, in contrast to the present study, 70.9% of them were females [17]. Similarly, Tekkam SD et al., carried out a study among the youth of Hyderabad, and reported the mean age of the participants to be 20.16±1.77 years, and 54.6% of them were females [10].

The prevalence of phubbing in the current study was 42.7 percent. A study conducted in western Turkey among medical students, found the prevalence of phubbing to be 12.7%, which is low in contrast to current study findings. The reason for this may be due to the different settings and differences in the socio-economic status, as in the present study, most of them belonged to the upper class (91.7%) whereas, in the study of western Turkey, 24.9% belonged to the low family income, 72.3% belonged to middle family income and only 2.8% belonged to high family income [18]. Another similar study conducted by Davey S et al., among the adolescents and youth of district Muzaffarnagar, Uttar Pradesh, India, observed the prevalence of phubbing to be 49.3%, a little higher than the current study [8]. Tekkam SD et al., in their study reported a prevalence of 52% for the phubbing status [10].

This may be attributed to the differences in the stream of the participants as in these studies Engineering College, Art College, and Commerce College students were also interviewed in addition to medical students. In the present study, 88.3% of the participants with the phubbing present were using smartphones for phubbing. The most commonly used social media platform during phubbing was WhatsApp (33.9%) followed by Instagram (27.2%) and Facebook (22.8%). The duration of phubbing for most of them (80%) was up to one hour. The observations are consistent with the findings of other studies. Davey S et al., Tekkam SD et al., also reported that the most common device used for phubbing was smartphone and WhatsApp was the most common application used by the participants for phubbing [8,10]. The duration of phubbing was reported by most of the participants as up to one hour in multiple studies [1,2,8,10].

Smartphone addiction and lack of self-control were observed in 75.6% and 22% of the participants respectively in the present study.

In the present study, smartphone addiction and lack of self-control were significantly associated with phubbing. A study conducted in Turkey among high school students found the prevalence of smartphone addiction to be 36.9 percent [19]. Another study on Korean adolescents on mobile phone addiction found that 31.2% of study subjects were having smartphone addiction [20]. The differences may be due to the difference in the age structure of the participants, geographical region, and the different scales used for mobile phone addiction.

The study which was conducted among adolescents of district Muzaffarnagar reported that 59.7% of the study subjects were having smartphone addiction and 24.7% of the subjects were not having self-control [8]. In contrast to that, a higher prevalence of smartphone addiction is found in present study, which may be attributed due to the involvement of only MBBS students as study subjects. In concurrence with present study, they also found smartphone addiction and self-control as significant predictors of phubbing [8]. This may be due to the reason medical students very often store and search the study materials on their phones in addition to the usage of their phones for conversations.

Limitation(s)

Present study was conducted among undergraduate medical students only therefore, it limits the generalisability of the findings. In addition, the authors only took self-control and smartphone addiction but did not take other factors like internet addiction, fear of missing out, etc., to determine their association with phubbing. Another limitation is the lack of a qualitative component to find out the predictors of phubbing.

CONCLUSION(S)

The present study found a high prevalence of phubbing among medical undergraduate students. On the phubbing scale, participants frequently reported that they can always access their phones and when they awaken in the morning, the first thing they do is check their phones for messages. Lack of self-control and smartphone addiction were significantly associated with phubbing. This study suggests the need for awareness generation of phubbing behaviour and its negative consequences on social well-being and relationships. Promotion of physical activity, meditation, and extracurricular activities will help reduce mobile phone usage, improve self-control, and increase inter-individual communication, which will further reduce phubbing behaviour. There is also the need for regular monitoring of smartphone usage at home and in college. The research should be conducted among the general population as well and should include the qualitative components to find out the predictors of phubbing.

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PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of Community Medicine, School of Medical Sciences and Research, Gautam Buddha Nagar, Uttar Pradesh, India.
2. Assistant Professor, Department of Community Medicine, School of Medical Sciences and Research, Gautam Buddha Nagar, Uttar Pradesh, India.
3. Associate Professor, Department of Community Medicine, School of Medical Sciences and Research, Gautam Buddha Nagar, Uttar Pradesh, India.
4. Associate Professor, Department of Community Medicine, School of Medical Sciences and Research, Gautam Buddha Nagar, Uttar Pradesh, India.
5. Professor, Department of Community Medicine, School of Medical Sciences and Research, Gautam Buddha Nagar, Uttar Pradesh, India.
6. Professor and Head, Department of Community Medicine, School of Medical Sciences and Research, Gautam Buddha Nagar, Uttar Pradesh, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Neeti Purwar,
Flat 10131, Chestnut Mahagun Mywoods, Noida Extension, Gaur City-2,
Gautam Buddha Nagar, Uttar Pradesh, India.
E-mail: purwar.neeti88@gmail.com

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