

## Original Research Article

# Whatsapp addiction: assessing pattern of Whatsapp usage and its impact on medical students at U.P.U.M.S., Saifai, Etawah, India

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## ABSTRACT

**Background:** Mobile phone addiction is the compulsive use of a mobile phone by youth across the world. A new kind of health disorder in this category among smartphone users is “Whatsapp addiction”. Medical students are also affected by this high smartphone engagement.

**Methods:** It was a cross sectional study, which was conducted among M.B.B.S. students of Uttar Pradesh University of Medical Science, Saifai, Etawah, India. All the M.B.S.S. students willing to participate and present at the time of the study included. The data was collected by using pre designed semi-structured questionnaire. Proforma included socio demographic profile, usage pattern and its impact.

**Results:** This study revealed that most of the participants are males (60.75%). Approximately 54% participants felt that their concentration has been reduced due to Whatsapp use, 43.6% participants experienced strain/diminution of vision and 38.4% participants perceived that their physical activity has been reduced due to Whatsapp use.

**Conclusions:** Whatsapp overuse affects the study duration, concentration, physical activity and sleep.

**Keywords:** Medical students, Mobile addiction, Whatsapp usage pattern

## INTRODUCTION

Addiction is considered by WHO as dependence, as the continuous use of something for the sake of relief, comfort, or stimulation, which often causes cravings when it is absent. The two major categories of addiction involve either substance addiction, or behavioral addiction such as mobile phone addiction.<sup>1</sup> A new kind of health disorder in this category among smartphone users is “Whatsapp addiction”. Medical students are also affected by this high smartphone engagement. Medical schools in both developed and developing countries are utilizing educational technology to bring effective changes in medical education. Whatsapp application is utilized by almost everyone using smartphone. Its free facility to exchange text, photos, videos, forward jokes, and other information has resulted in excessive use. The

impact may cause users to lose the real world interest; their entire emotion may remain restricted to the app. The most affected group of individuals is of students that cannot function without accessing their online accounts within every passing hour, giving rise to an alarming condition.<sup>2</sup> It has been observed that even during ongoing class lectures, students still find time to connect with friends online or respond to notifications at the cost of their academic pursuit.<sup>3</sup> Internet addiction shares certain degree of resemblance with substance addiction where addicts suffer mentally and physically.<sup>4</sup> A large proportion of these users comprised of teenagers and young adults that uses these social sites on regular basis for different purposes.<sup>5</sup> The loss of control, serious interference in everyday life (at school or work) and a constant dependence are some of the symptoms to identify people with Whatsapp dependence. Borderline

personality disorder (BPD) characteristics such as feeling of emptiness, getting bored easily, unstable self-image increase the proneness for Whatsapp addiction as these people may use mobile more often to stay in touch with more number of persons. Studies have found that dependent internet users rank high in terms of the feeling of loneliness, affective disorders, low self-esteem, and impulsive behavior.<sup>6</sup> Extended use of social media has led to increased Internet addiction, cyber bullying, sex chatting, sleep deprivation, and the decline of face-to-face interaction.<sup>7</sup> According to several clinics in the UK, social media addiction is a certifiable medical condition. One psychiatric consultant claims he treats as many as one hundred cases a year.<sup>8</sup>

### **Aim and objectives**

- To know the Whatsapp usage pattern among medical students
- To find the impact of Whatsapp usage pattern among medical students.

## **METHODS**

**Study design:** A cross sectional study.

**Study subjects:** All under-graduate medical students of U.P.U.M.S., Saifai, Etawah.

**Study duration:** August-September, 2018.

### **Tools of the study**

The data was collected by using pre designed semistructured questionnaire.

### **Inclusion criteria**

Inclusion criteria were medical students who have Smart phones; medical students who use Whatsapp; medical students who were present at the time of study; medical students willing to give consent for the study.

Medical students were given the questionnaire in the lecture hall, which were filled by students after taking verbal consent and briefly explaining the purpose of the study.

The questionnaire contained information about socio-demographic profile, Whatsapp usage pattern and its impact

### **Statistical tools**

The data was entered in Microsoft excel worksheet and analyzed using SPSS version 24. Descriptive statistics like frequencies, percentages and Chi square were calculated. Ethical clearance certificate was taken by Ethical Committee of the medical university

## **RESULTS**

### **Pattern of usage**

Total numbers of participants enrolled were 399 out of which 242 (60.7%) participants were males and 157 (39.3%) participants were females. Among 399 participants, 169 participants (42.4%) visit Whatsapp 6-20 times per day. 227 (56.9%) participants are members in 1 to 5 Whatsapp groups. 119 (29.8%) participants spend more than 60 minutes per day. Only 181 (45.4%) participants change Whatsapp display picture within 1 month. 126 (31.6%) participants' change their Whatsapp Status within 1 week. Out of total 399 participants 146 (36.6%) use Whatsapp when surrounded by sleep. Among 399 participants 261 participants (65.4%) use Whatsapp just before going to sleep. Out of total participants 195 (48.9%) participants use Whatsapp as soon as they wake up. 142 participants (35.6%) use Whatsapp while having food. Out of total participants 124 (31.7%) participants use Whatsapp during walking, 183 (45.9%) participants keep internet on for 24 hours in a day. Out of total participants only 133 (33.37%) participants stop using Whatsapp for few hours, 173 (43.4%) participants use Whatsapp during class. While only 307 (76.9%) use unlimited pack of mobile recharge (Table 1).

**Table 1: Pattern of Whatsapp usage among study subject (n=399).**

Variable	Frequency	Percentage (%)
<b>Gender</b>		
Male	242	60.7
Female	157	39.3
<b>Whatsapp visit per day</b>		
<5 times	84	21.1
6-20 times	169	42.4
>20	146	36.6
<b>Duration spent per day</b>		
<30 minutes	145	36.3
30-60 minute	135	33.8
>60 minute	119	29.8

Continued.

Variable	Frequency	Percentage (%)
<b>No. of Whatsapp group</b>		
1 to 5	227	56.9
6 to 10	103	25.8
>10	69	17.3
<b>Frequency of change of display picture</b>		
Hourly	45	11.3
Daily	16	4.0
<1 week	58	14.5
<1 month	181	45.4
<1 year	99	24.8
<b>Frequency of change of status</b>		
Hourly	39	9.8
Daily	20	5.0
<1 week	126	31.6
1 month	103	25.8
<1 year	73	18.3
None of the above	38	9.5
<b>Whatsapp use when surrounded by sleep</b>		
No	253	63.4
Yes	146	36.6
<b>Whatsapp use just before your sleep</b>		
No	138	34.6
Yes	261	65.4
<b>Whatsapp use as soon after wake up from sleep</b>		
No	204	51.1
Yes	195	48.9
<b>Use Whatsapp while having food</b>		
No	257	64.4
Yes	142	35.6
<b>Use Whatsapp during walking</b>		
No	275	68.9
Yes	124	31.1
<b>Keeping internet on for 24 hour in a day</b>		
No	216	54.1
Yes	183	45.9
<b>Duration of stoppage of Whatsapp use</b>		
Few minute	65	16.3
Few hour	133	33.3
1 day	71	17.8
1 week	42	10.5
>1 week	88	22.1
<b>Whatsapp Use during class</b>		
Yes	173	43.4
No	226	56.6
<b>Type of data pack for recharge</b>		
Normal	92	23.1
Unlimited	307	76.9

### Impact

Out of 399 participants, 193 (48.4%) participants feel that their study duration has been impaired due to Whatsapp usage, 137 (34.3%) participants feel that their academic score has been reduced due to Whatsapp usage, 154 (38.6%) participants accept that their physical activity has been reduced upon Whatsapp usage, 212 (53.1%)

participant feel that their concentration has been affected due to Whatsapp use, 125 (31.3%) participants say that their social life has been impaired due to Whatsapp use. Among 399 participants 142 (35.6%) participants feel that their sleep has been hampered due to Whatsapp use, 175 (43.9%) participants prefer being solitary, 282 (70.7%) participants panic when their phone is misplaced, 186 (46.6%) participants are not able to resist themselves from viewing a message, 174 (43.6%)

participants have experienced strain/diminution of vision (Table 2).

Table 3 show the association between Whatsapp visit per day, impairment in study duration and prefer being

solitary or group. For this association Pearson Chi Square  $\chi^2$  is 13.725 and P value is 0.001 which is statistically significant. As the number of Whatsapp visit per day increases the study duration is more impaired and participants prefer more being solitary.

**Table 2: Impact of Whatsapp (n=399).**

Variable	Frequency	Percentage (%)
<b>Impairment of study duration</b>		
No	206	51.6
Yes	193	48.4
<b>Is your academic score reduced upon Whatsapp usage</b>		
Yes	137	34.3
No	183	45.9
Don't know	79	19.8
<b>Reduction of physical activity</b>		
Yes	154	38.6
No	245	61.4
<b>Reduction in concentration reduced upon Whatsapp usage</b>		
Yes	212	53.1
No	187	46.9
<b>Impairment of social life</b>		
Yes	125	31.3
No	274	68.7
<b>Is your sleep hampered</b>		
Yes	142	35.6
No	257	64.4
<b>Whether you prefer being solitary/group</b>		
Group	224	56.1
Solitary	175	43.9
<b>What do you feel when you misplaced your phone</b>		
Panic	282	70.7
Sick	33	8.3
Relived	84	21.1
<b>Can you resist your usage from viewing a message</b>		
Yes	213	53.4
No	186	46.6
<b>Experience of strain/diminution of vision</b>		
Yes	174	43.6
No	225	56.4

**Table 3: Association between Whatsapp visit per day, study duration impaired and prefer being solitary or group.**

Whatsapp visit per day			Study duration impaired		Total	
			No	Yes		
<5 times per day	Whether you prefer being solitary/group	Group	53	6	59	P=0.001
		Solitary	15	10	25	
		Total	68	16	84	
6-20 times per day	Whether you prefer being solitary/group	Group	41	43	84	
		Solitary	37	48	85	
		Total	78	91	169	
>20 times per day	Whether you prefer being solitary/group	Group	40	41	81	
		Solitary	20	45	65	
		Total	60	86	146	
Total	Whether you prefer being solitary/group	Group	134	90	224	
		Solitary	72	103	175	
		Total	206	193	399	

## DISCUSSION

This study revealed that most of the participants are males (60.75%), 42.4% (169) participants visit Whatsapp 6-20 times per day, 56.9% (227) participants having 1-5 Whatsapp groups. Most of participants 48.4% (193) feel that their study duration has been impaired due to Whatsapp overuse, 34.3% participants feel that their academic score has been reduced due to Whatsapp use, 38.6% participants feel that their physical activity has been reduced due to Whatsapp use. Most of the participants (53.1%) feel that their concentration has been reduced due to Whatsapp use, only 35.6% (142) participants feel that their sleep has been hampered, 43.9% (175) participants prefer being solitary. Most of the participants 70.7% (282) feel panic when they misplace their phone, 43.6% participants experienced strain/diminution of vision due to Whatsapp overuse. Similar study was conducted by Appiah to know the influence of Whatsapp on study habits of university students in Ghana.<sup>9</sup> The study revealed that most of the respondents frequently use the Whatsapp application at least ten or more times per day, 26.7% use the Whatsapp seven to nine times a day. Majority spends averagely 17.5 minutes on each visit. In terms of Social and lifestyle effects of Whatsapp majority admitted that they are using Whatsapp sometimes while speaking with others, although 6.7% will not do this. 40% will never surf till mid-night, 33.3% will sometimes do this and 26.7% will frequently do this. Majority feel lethargic after surfing Whatsapp. While 26.7 % feel no change. Another study conducted by the Sarker in Bangladesh to know the impact of Whatsapp messenger on the university level students.<sup>10</sup> This study revealed that Whatsapp has adverse impact on the life style and culture of students. Students are spending more time on this application rather than spending quality time with their family members. Many students are addicted to it and cannot abstain themselves from constantly chatting, replying and sharing of ideas or information. It also has negative impact on the study of the students. It encourages the grammatical mistakes, error in sentence constriction, lecture bunking. It annihilates lavish time of career building of students.

## CONCLUSION

Whatsapp overuse reduces the academic performances, physical activity and concentration.

### Recommendations

Based on the findings of the study, it is recommended that

- Parents, classroom teachers and others should encourage Whatsapp subscribers who are students to make sure that they utilize the platform for

disseminating only educational information to their colleagues.

- Students should be encouraged to utilize Whatsapp in a manner that will promote their academic performance positively.
- College teachers should endeavor to give orientation to students on the dangers of phone addiction because this can actually derail from their goals.

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