

Research Article

Pattern of whatsapp usage and its impact on medical students of Mysore Medical College and research institute, India

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ABSTRACT

Background: Mobile phone addiction/abuse/misuse is one of the forms of compulsive use of “a mobile phone” by youth across the world. “WhatsApp’s addiction/abuse/misuse” is now challenging health policy makers globally to think on this rapidly emerging issue. Objectives of the study were to know the whatsapp usage pattern among medical students and to find the impact of whatsapp usage pattern among medical students.

Methods: A Cross Sectional study was conducted among all the MBBS students from 01-08-2015 to 01-10-2015. The data was collected by using pre designed semi-structured questionnaire. Proforma includes socio demographic profile, usage pattern and its impact.

Results: This study revealed that 27.3% students had >20 Whatsapp visits per day, 45.3% had 6-10 whatsapp groups, 40.8% students changed their Whatsapp status within span of a week, 32.3% students spend more than 60 minutes in a day, 29.4% use Whatsapp while having food. 52.2% students stated that their study duration is impaired for 60 minutes in a day on an average and 12.9% students agreed that their academic performance is reduced since they started using Whatsapp. Participants in the study 45.8% students felt that they are unable to concentrate on study with usage of Whatsapp and 33.3% also felt that it lead to lack of physical activities, 67.2% agreed that their social life has been improved upon using Whatsapp.

Conclusions: Whatsapp overuse adversely affects the study duration, academic performance, and sleep. Yet medical students use Whatsapp groups for Academic purposes. Social life has been improved among Whatsapp users.

Keywords: Whatsapp usage, Impact, Medical students

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.”¹

Mobile phone addiction/abuse/misuse is one of the forms of compulsive use of “a mobile phone” by youth across the world. A new kind of health disorder in this category

among Smartphone users, “WhatsApp’s addiction/ abuse/ misuse” is now challenging health policy makers globally. Medical students are also affected by this high smartphone engagement.

Objectives

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

METHODS

It was a descriptive cross sectional study, which was conducted on MBBS students of Mysore medical college, Mysore, India from 01st August 2015 to 01st October 2015. All the MBBS students willing to participate in the study were included.

Inclusion criteria

Medical students willing to give consent for the study

Method of data collection

The data was collected by using pre designed semi-structured questionnaire. Proforma includes socio demographic profile, usage pattern and its impact.

Plan of analysis / statistical tools

The data was entered in excel format and analyzed using Epi-info Software version 3.4.3. Descriptive statistics like frequencies and percentages were calculated. Ethical clearance certificate was obtained by Ethical Committee of the MMCRI, Mysore, India.

RESULTS

Participants were 201 medical students, among them 44.3% were females and 55.7% were males. Most of them were of age 20 years (38.3%) followed by 21 (26.4%), 19 (24.9%) (Table 1). Medical students used the internet mostly for social networking than browsing. In our study conducted in Mysore Medical College and Research Institute, India 91.36% students who were using Whatsapp.

Table 1: Socio demographic profile of study subjects.

Age (years)	Frequency	Percent
18	11	5.50%
19	50	24.90%
20	77	38.30%
21	53	26.40%
22	9	4.50%
23	1	0.50%
Gender		
Female	89	44.30%
Male	112	55.70%
Total	201	100.00%

Usage pattern

This study revealed that 27.3% (55) students had >20 Whatsapp visits, 46.3% (93) students had 5-20 Whatsapp visits in a day. Most of participants, 45.3% had 6-10 whatsapp groups, 2.5% didn't have any group, 1 participant had had more than 25 groups. Meanwhile 40.8% students changed their Whatsapp status within

span of a week, 44.3% students changed their whatsapp display picture within span of a month. 39.8% students have installed applocks so that no one has access to their private messages.

While 32.3% students spend more than 60 minutes, 33.3% students spend more than 30 minutes in a day, 29.4% use Whatsapp while having food, 23.4% Keep their internet ON 24 hours. Therefore as much of the quality time of a day is occupied by whatsapp usage, time for other productive work is reduced. Around 54.2% (109) participants reported use of Whatsapp immediately after waking up. 27.9% (56) participants reported use of Whatsapp amidst of sleep. 80.1% (161) participants reported use of Whatsapp just before they sleep. About 14.9% students could stop using Whatsapp for few hours, 54.2% for a day, 29.9% for a week, 1% for a month. About 33.8% students were not using Whatsapp Study groups and 2.0% students had a maximum of 6 study groups (Table 2).

Impact of whatsapp usage

Out of 201 participants 52.2% students stated that their study duration is impaired for 60 minutes in a day on an average and 51.2% of participants doesn't know that whether their academic score has been reduced but 12.9% students agreed that their academic performance is reduced since they started using Whatsapp. Participants in the study 45.8% students felt that they are unable to concentrate on study with usage of Whatsapp and 33.3% (67) also felt that it lead to lack of physical activities, 67.2% agreed that their social life has been improved upon using Whatsapp.

Among MMCRI students 57.2% felt annoyed when their close friends didn't respond to their message, 52.2% students could resist their urge from viewing a Whatsapp message from their friend, 44.8% felt depressed when their close friends stop texting them in Whatsapp. The relationships created in this virtual world of Whatsapp builds new friendships and improve communication among people.

At the same time participants in this study also opined that the use of Whatsapp also leads to lesser face to face interactions, lesser understanding, false impressions, materialistic and unwanted relations.

Among participants 51.2% students felt panic upon misplacing their cellphones, while 15.9% students got relieved, 20.4% were desperate and 12.4% felt sick. Meanwhile 29.9% students have developed aversion over whatsapp. While 57.7% agreed that they have become multitasker after using Whatsapp and majority preferred to be solitary i.e 63.7% than the group.

This indicates the impact of Facebook and Whatsapp on the mental health which is a very important dimension of health. Decreased study time, loss of interest in studies,

poor performance were the most common effects on the academic performance of the participants. The study participants are of the opinion that Whatsapp has

beneficial effects as well as harmful effects. Whatsapp is a good platform to share academic and health related article (Table 3).

Table 2: Pattern of whatsapp usage among study subjects.

Variables	Frequency	Percentage
Whatsapp visits per day		
<5	53	26.40%
6 to 20	93	46.30%
>20	55	27.30%
Duration spent per day		
<30min	69	34.30%
30-60 min	67	33.30%
>60min	65	32.30%
No of whatsapp group		
0	5	2.50%
1 to 5	73	36.30%
6 to 10	91	45.30%
11 to 15	21	10.40%
16 to 20	9	4.50%
21 to 25	1	0.50%
>25	1	0.50%
No of Groups Admin		
0	66	32.83%
1 to 3	116	57.77%
4 to 7	19	9.45%
Change your display picture?		
<1day	11	5.50%
<1week	89	44.30%
<1month	68	33.80%
<1year	33	16.40%
Change your status?		
<1day	15	7.50%
<1week	82	40.80%
<1month	73	36.30%
<1year	31	15.40%
Use whatsapp amidst of sleep		
No	145	72.10%
Yes	56	27.90%
Use whatsapp just before your sleep		
No	40	19.90%
Yes	161	80.10%
Use whatsapp as soon as you wake up from your sleep?		
No	92	45.80%
Yes	109	54.20%
Installed applocks		
No	121	60.20%
Yes	80	39.80%
Forwarding the message		
<5	177	88.10%
5 to 10	20	10.00%
>10	4	1.90%
Use whatsapp while having food		
No	142	70.60%
Yes	59	29.40%
Keep internet on for 24 hours in a day		

No	154	76.60%
Yes	47	23.40%
I can stop using whatsapp for a duration of		
few hours	30	14.90%
1day	109	54.20%
1week	60	29.90%
1month	2	1.00%
Study groups you have in your whatsapp account		
0	68	33.80%
1 to 3	114	56.71%
4 to 6	19	9.45%
Total	201	100.00%

Table 3: Impact of whatsapp usage among study subjects.

Variables	Frequency	Percentage
Is your Study duration impaired?		
No	96	47.80%
Yes	105	52.20%
Is your Academic score reduced upon whatsapp usage?		
Yes	26	12.90%
Don't know	103	51.20%
No	72	35.80%
Is your concentration reduced upon whatsapp usage		
No	109	54.20%
Yes	92	45.80%
Is your physical activities reduced upon whatsapp usage		
No	134	66.70%
Yes	67	33.30%
Is Your social life improved?		
No	66	32.80%
Yes	135	67.20%
Have you become multi-tasker?		
No	85	42.30%
Yes	116	57.70%
Is your sleep hampered		
No	146	72.60%
Yes	55	27.40%
Whether you like being solitary/Group		
Group	73	36.30%
Solitary	128	63.70%
You feel depressed when your close friends stop texting you in whatsapp		
No	111	55.20%
Yes	90	44.80%
What do you feel when you misplaced your cell phone		
Panic	103	51.20%
Desperate	41	20.40%
Sick	25	12.40%
Relieved	32	15.90%
You feel annoyed when your close friend doesn't respond to your message		
No	86	42.80%
Yes	115	57.20%
Can you resist your urge from viewing a message ?		
No	96	47.80%
Yes	105	52.20%

Have you ever developed any kind of aversion?		
No	141	70.10%
Yes	60	29.90%
Total	201	100.00%

DISCUSSION

In April 2015, WhatsApp active users were 800 million. WhatsApp usage is increasing as more and more adolescents enjoy exploring their Smartphone's in their free hours. New research suggests that excessive use of WhatsApp, increases the risk for severe psychopathologies in adolescents and there is growing evidence of problematic use of Smartphone's that impacts both social and health aspects of users' lives.

Studies have showed that abnormal users of Smartphone's had significantly more problematic behaviors, somatic symptoms, attention deficits, and aggression and this study also found that youth were more addicted to Smartphone they had more severe psychopathologies and also stress, sleep disturbances, and symptoms of depression.^{2,3}

WhatsApp's addiction impacting health of adolescents there are two questions that arise from the new way of using. The first is the issue of stress from constant connection to other people and decreased privacy the second issue is whether his new way of being online is going to make people more present in the virtual world at the expense at the real world?

Assessment of overuse or problematic use can actually depend on one time, self-reported behavioral information about Smartphone.⁴ Smartphone's addiction emerging in Indian youth.70 million people are currently using WhatsApp in India.⁵

Little research has been conducted about smartphone use and its consequences. Considering the high rate of smartphone use among Indian adolescents, this area needs to be further explored, with a focus on what roles technology plays in fostering fantasies, acting out behaviors. Therefore aimed to explore problems emerging with this technology among Indian medical students, so that best prevention and treatment strategies can be worked out-this is the area.

WhatsApp addiction syndrome is a part of internet addiction disorder. Internet addiction disorder may be broadly defined as "the inability of individuals to control their internet use, resulting in marked distress and/or functional impairment in daily life". One of the study conducted in South Korea on Internet addiction disorder showed that Internet addiction disorder influence suicide-related behavior. Gray matter volumes of the dorsolateral prefrontal cortex (DLPFC), rostral ACC, the supplementary motor area (SMA), and white matter

focalanisotropy (FA) changes of the posterior limb of the internal capsule (PLIC) were significantly correlated with the duration of internet addiction in the adolescents with internet addiction syndrome.⁶ Till date, the scientific literature addressing whatsapp usage pattern and literature is scarce.

Communicating with each other has become easy and faster with the advent of Whatsapp. This study revealed that 27.3% (55) students had >20 Whatsapp visits in a single day, 46.3% (93) students had 5-20 Whatsapp visits in a day. Much of the quality time of a day and Whatsapp, time for other productive work is reduced. Around 54.2% (109) participants reported use of Whatsapp immediately after waking up.

This is in match with a study conducted by Sankalp Raj Choudhary they found that 49.6% participants reported use of Facebook and Whatsapp immediately after waking up and among them 29.25% (43) of them reported lack of time for productive work.⁷ In present study 27.9% (56) participants reported use of Whatsapp amidst of sleep 80.1% (161) participants reported use of Whatsapp just before they sleep. This is in match with the study conducted by Sankalp Raj Choudhary they found that 83.67% (123) participants access Facebook and Whatsapp before sleeping and out of them 18.3% (27) complained of sleep disturbances due to inadequate sleep.⁷

14.9% students could stop using Whatsapp for few hours, 54.2% for a day, 29.9% for a week, 1% for a month. Out of 201 students 66.2% were having one or more study group and 33.8% students were not using Whatsapp Study group.45.8% students felt that their concentration has been reduced with usage of Whatsapp. About 33.3% (67) also felt that it lead to lack of physical activities. This is in match with Sankalp Raj Choudhary they found that 37.4% (55) felt that it lead to lack of physical activities.⁷ About 24.5% (36) revealed that Facebook and Whatsapp was a reason for stress. 37.4%.

67.2% agreed that their social life has been improved upon using Whatsapp. Decreased study time, loss of interest in studies, poor performance were the most common effects on the academic performance of the participants. The study participants are of the opinion that Whatsapp has beneficial effects as well as harmful effects. Whatsapp is a good platform to share academic and health related article.

CONCLUSION

Whatsapp overuse adversely affects the study duration, academic performance, and sleep. Yet medical students use Whatsapp groups for Academic purposes. Social life has been improved among Whatsapp users.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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