



## Assessment of whatsapp addiction and its correlates among students of a Private University of Delhi-NCR

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### Abstract

**Objective:** The objective is to study the prevalence of WA addiction and its correlates among the students of a private university of Delhi-NCR.

**Method:** A cross sectional study was carried among 170 students. Data was collected on their personal and socio demographic Variables using a self-administered questionnaire. WA Addiction Scale (adaptation of Bergen Facebook Addiction Scale) was used to measure WA dependency among students. Descriptive statistic and Chi-square were applied, where  $p < 0.05$  considered statistically significant.

**Result:** Out of 170 students' majority were females (63.5%). 58.8% of the students are addicted to WA. 72.9% students used WA because it is an easy way to communicate. 30.6% reported that using WA during studies reduces their concentration. 81.2% of the students use WA while socializing with others. Checking WA immediately after waking up ( $p=0.002$ ) and checking WA in middle of the sleep ( $p=0.005$ ) was significantly associated with WA addiction.

**Conclusion:** Encouraging personal interactions with friends and family can help reduce the progression of the dependency on WA.

**Keywords:** substituted Li ferrite, magnetostatic and spin waves, microstrip array antenna, X-band frequency range

### Introduction

When SMS service was introduced it was very exciting for everyone to receive or send. Our network used to jam during any festivals due to excess of exchange of greetings through SMS. But now a day's people rarely talk about SMS because of the intervention of "social networking" especially Whatsapp (WA). Applications like WA allows user to send text messages, videos, pictures, video/audio call and many more services in a go to an individual or a group of friends at no cost. Today most widely used instant messaging service is WA. The internet based mobile text messaging applications such as WA, has allowed consumers to socialize and stay connected longer, using their smart phones without having to pay for a network operator's SMS charges (Sarkar, S., Gupta, R., Menon, 2017) <sup>[18]</sup>

WA was founded in year 2009 by Brian Acton and Jan Koum. More than 1 billion people in over 180 countries use WA to stay in touch with their friends and family and even for business purpose (George, 2018) <sup>[8]</sup>. WA is quite popular amongst young generations. They use it for their academic purposes; it is highly used to share notes or academic knowledge and classroom information. They use it to share formal and informal content related to academic purpose. It is a good source to stay connected with your peers. WA unlocks the opportunities for intimate relationships and it has become one of the reasons for smart phone penetration among youth in India (Sarkar, S., Gupta, R., Menon, 2017) <sup>[18]</sup>.

But every technology has good as well as bad effects on us. According to Adegbillero-Iwari (Mubarak & Bello, 2016) <sup>[14]</sup> social media differs from old form of mass media in many ways, including, quality, sophistication, reach, speed, efficiency, frequency, accuracy, usability, reliability, cheapness, immediacy, portability and permanence as it allows interaction among its users in which they create, share, exchange information and ideas in virtual communities and networks. WA usage might have some addictive character. According to Rosenfeld *et al*, older people use WA less frequently, but whenever they do, they write longer messages. They also mentioned that the educational qualification of an individual will affect the frequency of the attachments you share via WA. Females use WA more than men and generally to communicate with their family. Men on the other hand are members overall of larger communication groups and send shorter messages (Rosenfeld *et al.*, 2016) <sup>[17]</sup>. The most affected group of individuals is of students who cannot function without accessing their online accounts within every passing hour, giving rise to an alarming condition. 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 (Chavan, 2018) <sup>[5]</sup>. Excessive use of Instant Messaging Service among students influences their mental and academic problems especially among students. As there is dearth of Indian literature on the dependency of WA addiction and its pattern

of usage among university students, this study was done to assess WA addiction and its correlates among students at a private university of Delhi, NCR.

**Materials and Methods**

A cross sectional study was conducted among 170 students at a private university of Delhi NCR. A self-structured, pre-tested questionnaire was used to collect information on socio demo garphic, personal and pattern of WA usage among study participants. WA Addiction Scale was used to examine compulsive WA use among study participants. WA Addiction scale has been adapted from Bergen Facebook Addiction Scale (BFAS) by Andreassen *et al.*, from University of Bergen, Norway (Andreassen *et al.*, 2012). This scale comprises of 18 items, six of each core features of addiction: salience, mood modification, tolerance, withdrawal, conflict, and relapse. That item within each of the six addiction elements with the highest corrected item correlation was retained in the final 6-item scale. The 6 items are scored on a 5-point Likert scale from very rarely = 1 to very often = 5. Answering often or very often to 4 or

more items is taken as an indication of WA dependence. The adapted WA Addiction Scale possesses good psychometric properties, e.g. skewness and kurtosis were in the acceptable range of ±1, there was very little missing data, no outliers, very good to excellent internal reliability, low measurement error, stable α and sufficient homogeneity in the instrument stem (Dhir & Helsinki, n.d.). Scores of 15 & above is considered as WA addicts.

Informed consent was taken from study participants. Study was approved by Institutional ethical committee. Data analysis was performed using statistical software SPSS (VER.23.0) Descriptive statistic and bivariate analysis are carried out to find association between categorical variables. p <0.05 was considered statistically significant.

**Results**

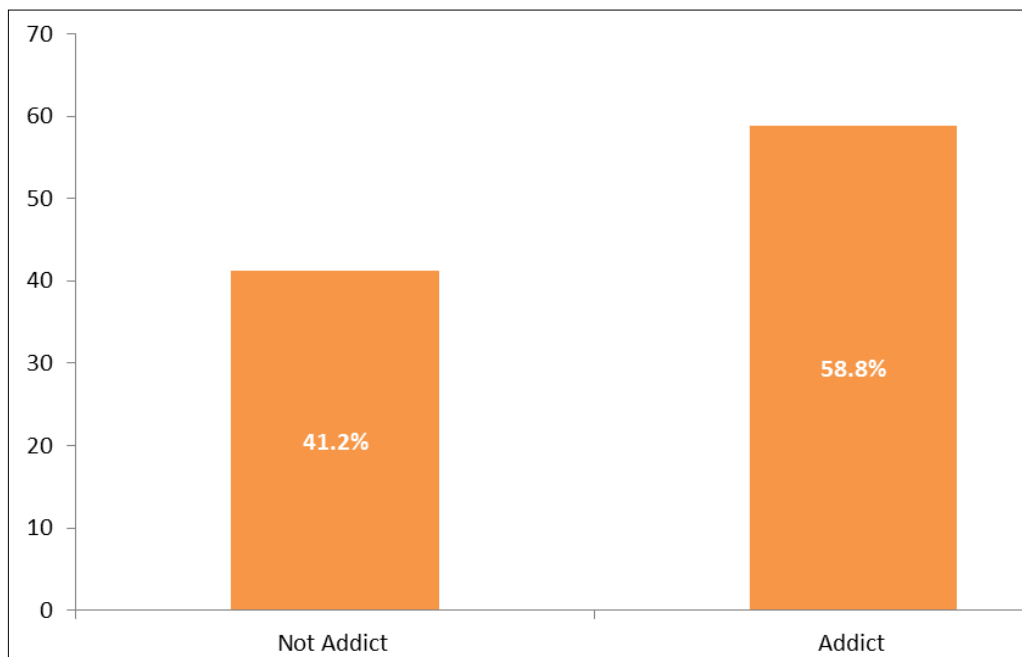
The total number of participants is 170 out of which 63.5% were female, 66.5% were post graduate students. 70% students were day scholar, and 54.1% students live outside Delhi. The overall mean age of students was 22.6 (standard deviation=2.986) years (Table 1).

**Table 1:** Sociodemographic profile of study participants (n=170)

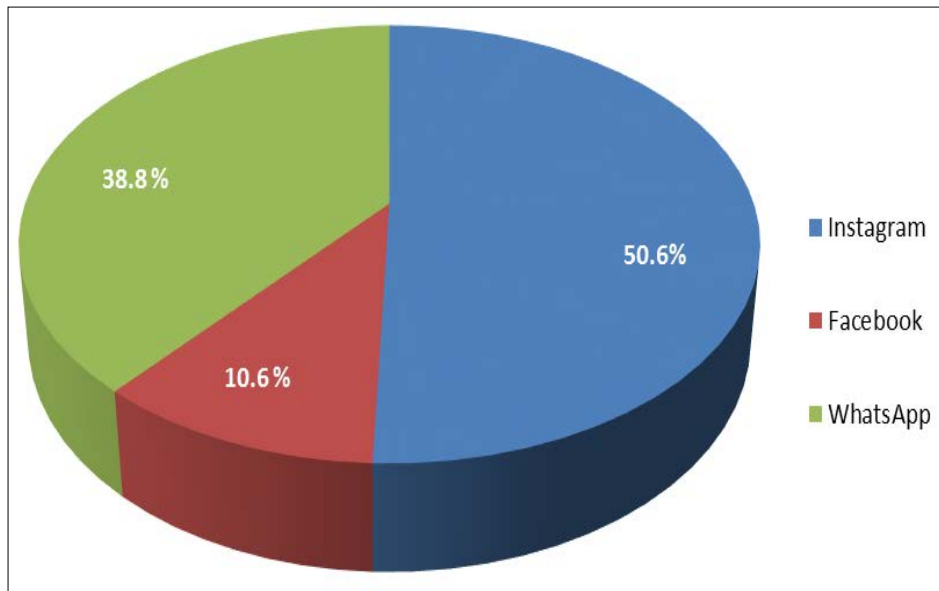
Variable	N (%)
Gender	
Male	62 (36.5)
Female	108 (63.5)
Current Residence	
Hosteller	51 (30)
Day Scholar	119 (70)
Course Level	
UG	57 (33.5)
PG	113 (66.5)
Native Place	
Delhi	78 (45.9)
Outside Delhi	92 (54.1)

WA addiction scale responses reveal that 58.8% suffered from WA addiction whereas 41.2% of them are not addicted

to WA usage, shown in Fig. 1.



**Fig 1:** Percentage of study participants addicted to WA usage.



**Fig 2:** Proportion of social media apps used by study participants

Fig. 2 shows, 50.6% of the students use Instagram and 38.8% use Whatsapp and 10.6% use Facebook as a social networking program.

On studying the pattern of WA usage, it was found that 72.9% of the students use WA because it is easy to communicate and 67.6% use WA for approx. 30 min to 3 hours. 29.4% students check WA every time they hear an

incoming tone.

30.6% of the students felt that using WA reduces concentration while studying whereas 41.2 % of the students feel something is missing when they do not use WA. WA is primarily (91.8%) for circulating academic information. (Table 3)

**Table 2:** Pattern of WA usage among study participants (n=170)

Variable	n(%)
Why do you use WhatsApp?	
Easy to use/user friendly.	36 (21.2)
Easy to Communicate.	124 (72.9)
Time Saving	8 (4.7)
Saves Money	2 (1.2)
How many hours in a day you normally spend on using WhatsApp?	
30 Min to 3 Hr	115 (67.6)
3-5Hr and More	55 (32.4)
How many times do you check WhatsApp during Lecture?	
Every time I hear an incoming message tone	50 (29.4)
Less than 3 times.	79 (46.5)
3-6 Times	34 (20.0)
More than 6 times	7 (4.1)
Where do you use the WhatsApp service more?	
Campus	22 (12.9)
Home	148 (87.1)
What current feature of WhatsApp you use the most?	
Text Message	128 (75.3)
Photos	22 (12.9)
Videos	4 (2.4)
Forward Information	12 (7.1)
Voice Message	4 (2.4)
What is your mood/behavior after using WhatsApp?	
Feel more Active.	32 (18.8)
Feel Lethargic	14 (8.2)
Feel No Change	124 (72.9)
What is the impact of using WhatsApp on your studies?	
Reduce Concentration	52 (30.6)
No Effect	118 (69.4)
What is your Experience without surfing WhatsApp for a day?	
Feel No Change	88 (51.8)
Feel Something is Missing	70 (41.2)
Difficult to spend a Day	12 (7.1)

Fig 3 shows that all the study participants use WA to chat with friends whereas 60.6% of the participants use it to kill loneliness. 28.8% of the participants use WA to share their

political views. 54.1% of them use WA for romantic relationship and 95.9% of the students use it for circulating academic information.

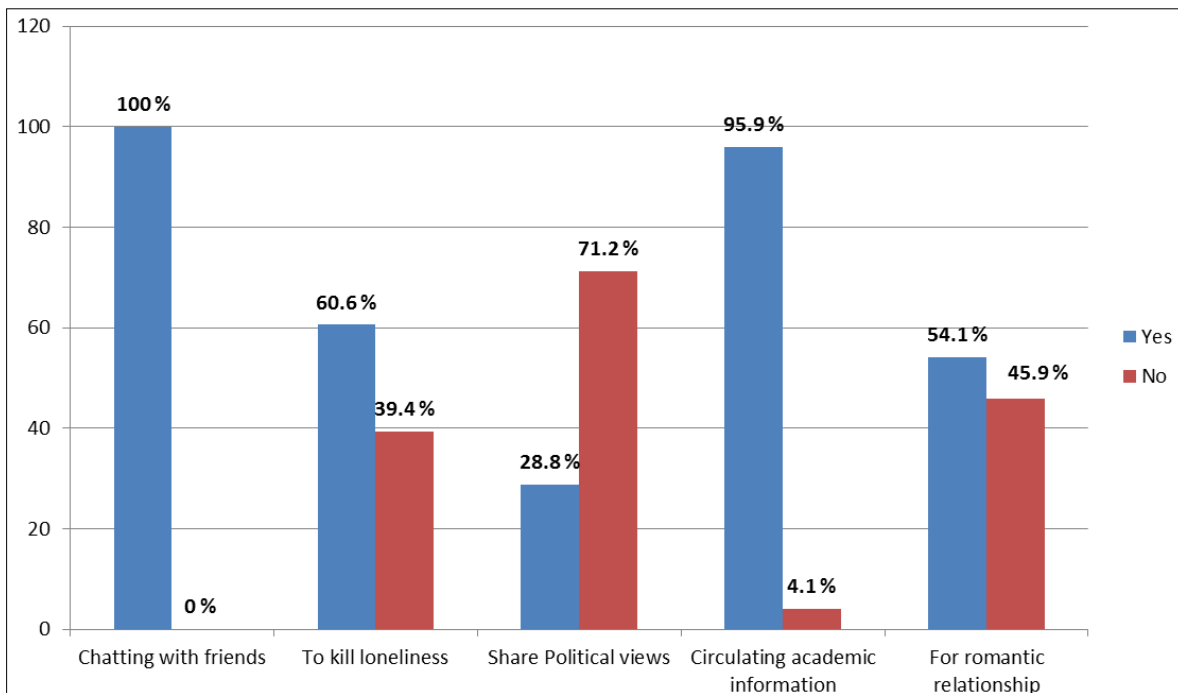


Fig 3: Purpose of WA usage

Table 3 shows the behavior of an individual while using WA application as well as the sleep pattern. 81.2% of the participants use WA while socializing with others. 18.8% of them have sometimes skipped their meals while using WA

whereas 28.8% felt discontent and depressed after checking WA profile of others. 67.1% of the students use WA until they sleep and 61.2% of them check WA immediately after waking up. 28.8% check WA in between sleep.

Table 3: WA usage behavior and sleep pattern

Variable	N (%)	
	Yes	No
Do you use WhatsApp while socializing with people	138 (81.2)	32 (18.8)
Have you ever forgot or skipped meal while using WhatsApp	32 (18.8)	138 (81.2)
Have you ever felt discontent and depressed after checking profile of other people	49 (28.8)	121 (71.2)
Do you use WhatsApp until you sleep	114 (67.1)	56 (32.9)
Do you check WhatsApp immediately after waking up	104 (61.2)	66 (38.8)
Do you check WhatsApp in between sleep	49 (28.8)	121 (71.2)

Chi- square test was used to analyze significant association between sociodemographic, personal profile and pattern of WA usage with WA addiction. On observation it is found that chatting with friends (p=.001), sharing political views (p=.005) have significant association with WA addiction. It was also found that many of our sleep patterns were associated with WA addiction such as, Checking WA in the middle of the sleep (p=.005), Checking WA immediately

after waking up (p=.002). Feature of WA application such as media sharing or messages were also significantly associated with WA addiction (p=.022). Although males were more addicted to WA (41.9%) than females (40.7%), this association was not statistically significant. Similarly, age, course, current residence, native place, place of WA use and duration of WA use were not found to be significantly associated with WA addiction.

Table 4: Bivariate analysis of the relationship of sociodemographic variable, pattern of use and WA Addiction

Variable	WhatsApp Addiction		p- Value
	Addict	Not Addict	
Gender			
Male	26(41.9%)	36(58.1%)	.879
Female	44(40.7%)	64(59.3%)	
Current Residence			
Hosteller	26(51%)	25(49%)	.089
Day Scholar	44(37%)	75(63%)	
Course Level			
UG	19(33.3%)	38(66.7%)	.140
PG	51(45.1%)	62(54.9%)	

WA used for politics/to share political views.			
Yes	12(24.5%)	37(75.5%)	
No	58(47.9%)	63(52.1%)	.005**
Check WA in middle of the sleep.			
Yes	12(24.5%)	37(75.5%)	
No	58(47.9%)	63(52.1%)	.005**
Check WA immediately after waking up.			
Yes	33(31.7%)	71(68.3%)	
No	37(56.1%)	29(43.9%)	.002**
WA to chat with friends			
Yes	12(80.0%)	3(20.0%)	
No	58(37.4%)	97(62.6%)	.001*
Feature of WA used the most.			
Messages	54(37.5%)	90(62.5%)	
Media Sharing	16(61.5%)	10(38.5%)	.022***
Place where WA used the most.			
Home	60(43.2%)	79(56.8%)	
Campus	10(32.3%)	21(56.8%)	.265

\*=p<0.001, \*\*=p<.01, \*\*\*p<.05

### Discussion

The current study set out to understand the purpose and pattern of WA usage among students of a private university of Delhi-NCR. Only handfuls of studies have measured addiction of WA use. Anseim George and S Preetha (George, 2018) [8] in their study conducted on 120 students from secondary to post graduation level in Chennai found that 13% have higher WA use behavior.. Another study conducted among nursing students of a university in Himachal Pradesh (Bala, 2019) [3] showed high prevalence rate of WA addiction. Another study conducted among MBBS students of Sikkim Manipal Institute of Medical Sciences (Sarkar, S., Gupta, R., Menon, 2017) [18] states that 12 % of the study participants are WA addicts.

The current study results showed that WA had surpassed Facebook in terms of social networking platform with 38.8% of students being WA users and only 10.6% who used Facebook. This outcome was also observed by a study done by Montag (Montag *et al.*, 2015) [13] on general population living in Germany, they developed an application which is customized to track the WA use of the participants which reported that among study participants 19.83% use WA whereas only 9.38% use Facebook. Ahad and Annie Dayani (Ahad & Lim, 2014) [1] mentioned in their study on WA use among 158 undergraduate students in Brunei that 54.78% of the students believe that WA is a normal source of communication for them rather than something they can't live without, which is same as our study which showed that 51.8% of the students feel no change if they have to leave WA surfing for a day. One more study conducted at a private institute at Kondigre, India (Chavan, 2018) [5] showed that 50% of the students use WA just for chatting with friends and another study among the students of University of Mangalore, Mangalore (Lokesha, 2016) [11] states that 80.85% of the students use WA for academic purpose. Similarly one more study among the students of a nursing college in Shimla (Bala, 2019) [3] states that almost all the students use WA to communicate with friends. Our study showed that 67.6% of the students use WA from 30min-3 hours per day. A similar study at Mangalore University (Lokesha, 2016) [11] showed that 60% of students use WA for up to 3 to 5 hours per day. Similarly a study conducted at Peshawar, Pakistan (Minhas *et al.*, 2016) showed that 19% of the students use WA up to 4 hours a day. Another study conducted among 650

academicians of different universities of Malaysia (“*ช่วงศ ฉายะจินดา*,” n.d.) found that the study participants use WA 3-5 hours a day. Whereas at University of Cape Coast (Nations, 2017), [15] out of 174 students 37 use WA more than 1 hour. One more study conducted on the students of Mangalore (Lokesha, 2016) [11] mentioned that out of 188 students 35.63% of the students use WA for 1-2 hours. Another study in Jordan (Jayaraj & Haneesh, 2018) [9], 66% of the participants use WA for less than 2 hours. Same as in another study in Mysore on UG PG students of a university (باقري & فرهاد, n.d.), 39.4% of the students use WA 1-2 hours a day. According to current study, 81.7% of the students prefer to use WA at home. Similarly another study conducted at Portugal (Pontes *et al.*, 2016) [16] among school students mentioned that 86.5% of the students use internet at home rather than at the school. Another study at Nigerian University (Nations, 2017) [15] stated that out of 237 students 78% uses WA quite often. A study at a different Universities in Kerala (Jayaraj & Haneesh, 2018) [9] mentioned that out of 526 Students 358 students use WA quite often. In current study 46.7% of the students check WA less than 3 times during any lecture. Whereas one study conducted at University of Cape Coast (Nations, 2017) [15], among 174 students of MBA 77% of the students check WA more than three times per day. Another study at Mysore (باقري & فرهاد, n.d.), among 452 students who participated in a study, 48.2% check their WA status less than 5 times a day. A study conducted on the youth of Jalandhar, India (Chahal *et al.*, 2015) [4] showed that there is an association between Shyness and Feeling Restless without WA. WA use has almost become a habit in youth. Different findings were observed in pattern of usage of WA in daily life. In another internet based survey (Kumar & Sharma, 2017) [10] 66% of the participants use WA because it helps them in improving their relations with friends. Nishant Singh and Naresh Pal Singh (Singh *et al.*, 2019) [19] in their study conducted on MBBS students of a medical college in Etawah, Uttar Pradesh observed that out of 399 students 65.4% of the students use WA until they sleep whereas 48.9% of the students check WA immediately after waking up. Similarly, in our study 30.6% of the students use WA till they sleep and 37.6% of the students use WA before coming out from the bed. Another study conducted on Malaysian health workers (Ganasegeran *et al.*, 2017) [7] showed the significant relationship between WA before sleep and WA immediately

after sleep with WA usage. In current study, 67.1% of the students use WA until they sleep and 61.2% of the students check WA immediately after waking up. The present study focused on the WA addiction and basically the pattern and purpose of WA usage. Future studies must be conducted to study various correlates associated with WA particularly its effect on academic performance and relationships among university students.

### Conclusion

The present study is basically to understand the purpose and pattern of WA use among college students. Our study reported 58.8% of WA addiction. WA has become a part of everyone's daily life, and we don't have enough studies on the dependency of WA among youth in our country. There is no specific scale to measure the level of addiction of WA use other than what A. Dhir (Dhir & Helsinki, n.d.) has developed, but that is also an adaptation of BFAS.. There is a lack of quality research in this area besides the fact that WA has become a part of our daily routine. Teachers, mentors, and peers need to come forward to develop awareness about the additive potential of WA and how it can affect the health and academic performance of students. More physical conventional interactions should be encouraged among the youth so that we can lower down the dependence on social media.

**Conflict of Interest:** None

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