

Facebook Addiction Among College Students of Tripura: Dissecting the Roles of Gender and Age

Abstract: The study of the internet is never complete without exploring the impact it has on human lives, for the internet is made by the people, for the people. Hence, this study focuses on assessing the nature of Facebook addiction, among the college students of Tripura. Very few researches on Facebook or internet addiction are found in the state of Tripura. From 30 eminent colleges of Tripura, 3337 students (1752 males and 1585 females) participated in this research. The Bergen Facebook Addiction Scale was administered to assess the level of Facebook addiction. The results indicate that there exists no addictive Facebook usage among the participants. The men have significantly higher Facebook addiction scores than women ($p < 0.01$). Also, it has been found that those above 35 years of age are the most vulnerable to Facebook addiction, if used in problematic manner. The nature and differences in Facebook addiction among the other age groups have been discussed in this study with an aim to dissect the roles of gender and age.

Keywords: Facebook addiction, Facebook usage, Internet addiction, Gender differences, Age differences, Tripura.

Excessive or poorly controlled preoccupations, behaviors or urges regarding the usage of the internet and computer are considered as distress and impairment, which leads to addiction. Internet addiction has been subject to different researches lately. The prevalence of Internet Addiction in the US is 0.3 to 0.7%¹. Also, in a study conducted in Mumbai, India, 0.7% of the participants were found to be addicted to the internet².

Facebook addiction is defined as the phenomenon where people use Facebook excessively and compulsively to get a desired mood state and thus, suffer negative personal effects as a result. In this study, Facebook addiction is perceived to possess the following qualitative characteristics: i) Salience (for example, thinking about Facebook use constantly), ii) Tolerance (for example, needing more time on Facebook to attain past beneficial effects), iii) Mood alteration (e.g., mood improvement by Facebook use) and iv) Relapsing (returning to former addictive behaviour).

Apart from gaming (like PUBG), Internet Addiction has its wings spread over various sites like WhatsApp, Instagram but one significant social media that makes a difference is Facebook. According to a report, 239.65 million users from India alone have logged in to Facebook in 2022³. Excessive Facebook does not only snap social ties and hamper socialization but is also linked with less attention, inefficient time management and lower academic performance⁴. Research across different countries including India reflects that the traits acquired by people with Facebook addiction can be neuroticism, shyness, introversion, loneliness and depression⁵⁻¹⁰. Those who use Facebook are reported to have high self-esteem and also, more intimate friendships than non-users¹¹.

The amount of time spent in a day in using Facebook can be used to predict Facebook addiction¹². However, the behavioral factors have not been stressed on, much. Few studies have explored the link between Facebook addiction and character traits. Also, not many pieces of research have stressed on the significance of gender and age of the users. Clinical samples show the dominance of the male. Also, the onset of Facebook Addiction is found to be around the late 20s and early 30s¹.

Hence, the motivation of the present study is to assess the Facebook addiction levels among the college students of the rapid-paced, technologically blooming north eastern state of India: Tripura. Tripura is a geographically isolated region of the country, but it is not digitally isolated. Hence, the study offers an interesting proposition. The objectives of the study prioritize assessing the differences of the Facebook addiction levels across the gender and age groups. The objectives were fulfilled, utilizing different measures of descriptive and inferential statistics, as discussed in the sections that follow.

Theoretical Background: Some researches need to be done on the prevalence, gender differences, and the age-groups in internet addiction and Facebook addiction studies is an emerging sub - theme under the umbrella of internet addiction. In India, with the declining cost of internet data³⁸ as well as the tremendous rise in

smartphone users, the assessment of trends of internet addiction and especially, Facebook addiction is the need of the hour. As for the state of Tripura, India, a few pieces of literature on Internet addiction have been found.

Prevalence of Internet Addiction: The prevalence of Internet addiction is on the global rise after the smartphones hit the market and the cost of the internet dropped drastically. In a study, 10.7% of high and middle school students from South Korea were reported to be addicted to the internet¹³. As much as 47% of undergraduate and postgraduate students were found to have high levels of internet addiction¹⁴. It is not always that the college and school students are addicted to the internet. In a study conducted in Mizoram, India, healthy, efficient and productive levels of internet users have been noted¹⁵. In a study in India, 26.43% of students were noted to fall in the category of 'high impact of Facebook usage'¹⁶.

Facebook Addiction and Gender: There are different pieces of evidence regarding gender differences in internet addiction. Studies show that males are more likely than females to be pathological users¹⁷. The females are found to be involved more with seeking online interpersonal relationships¹⁸. However, females are also more likely to have no symptoms or limited symptoms¹⁹ of internet addiction. Those among the internet dependents show higher men to women (71% men, 29% women) ratio than among the non-dependent users (50% men, 50% women)²⁰. Different separate usage patterns have also been marked among the sexes. Women prefer anonymous contact and seek close friendships. They may like to stay hidden, or on the other hand, try to share their feelings, have a sense of belonging. However, men seek out dominant content and explore sexual materials¹⁹. In Tripura, Gedam et al.²¹ found that the total prevalence of Internet addiction was 19.85%. Out of the total population, 30.05% were males and 17.04% were females.

Facebook Addiction and Age: Age is found to be a significant predictor of internet addiction, Facebook intrusion, and Facebook intensity²². An inverse relationship between Facebook addiction and age and a positive relation between time spent online and age was noted²³. In Tripura, 19.85% of students were found to be addicted to the internet, who was in the age range of 17 to 24 years²¹. Again, studies point to the fact that students below the age of 20 are the most vulnerable to Facebook addiction¹⁴. Finally, in a study by²⁴, only 2% of students belonging to the age group of 12-18 years, reported being addicted to the internet.

Very few researches have focused on internet addiction among college students in the state of Tripura. Also, it is found from the literature review that gender and age are two of the important variables that are linked with internet addiction. This study aims at exploring the aforesaid variables in the context of Tripura.

Hypotheses: Based on the review of the literature, the following hypotheses are formed:

H₁: Facebook Addiction is prevalent among the college students in the State of Tripura.

H₂: There exists a significant difference in Facebook addiction between male and female college students.

H₃: There exists a significant difference in Facebook addiction among the age groups.

Methods: Participants: This study was based on survey method and data was collected from a sample of 3337 students of different colleges of Tripura, India. The participants were selected from 30 colleges by a purposive sampling technique, considering 10 % from each college. About 1752 males (52.5%) and 1585 females (47.5%) participated in this study. The sample was divided into five age groups: i) Under 18 (N=671; 20.1%), ii) 18-24 years (N=2530; 75.8%), iii) 25-31 years (N=64; 1.9%), iv) 32-35 years (n=10; 0.3%), and v) Above 35 years (N=62; 1.9%). It was ensured that the participants fulfilled the inclusion criteria and provided their consent for the data collection. All ethical norms were fulfilled in this study.

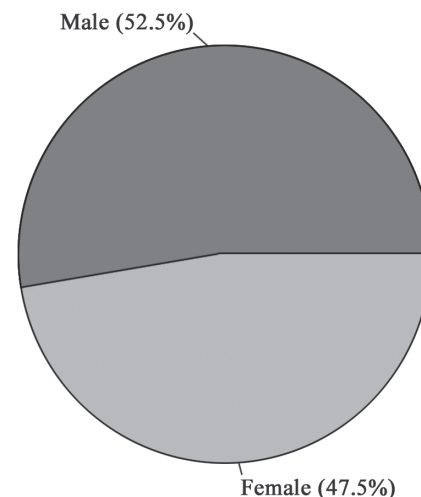


Fig.1. Percentages of male and female

Materials: A general information schedule was prepared which helped in the collection of the basic demographics of the participants which includes gender, age, etc.

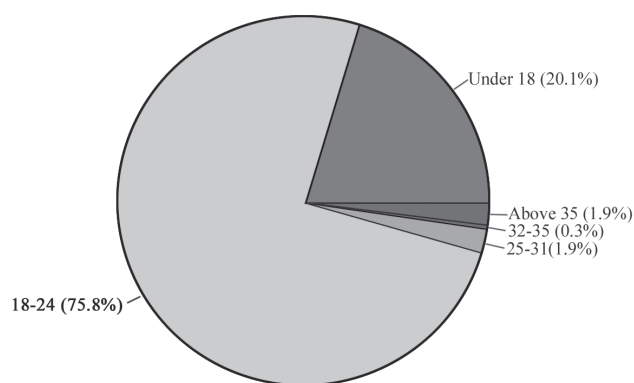


Fig.2: Percentages for the age groups

Secondly, to assess the levels of Facebook addiction of the participants, the Bergen Facebook Addiction Scale (BFAS) proposed by Andreassen et al.²⁵ was used, which was modified and adapted to the local language (Bengali). Thus the questionnaire was based on the famous Bergen Facebook Addiction Scale. It was adopted after receiving due permission from the originators of the Scale.

The BFAS scale comprises of six fundamental elements of addiction to Facebook. Prominent parameters advocated by the originators of the Scale are salience, mood modification, tolerance, withdrawal, conflict, and relapse among others. The Scale holds a Cronbach alpha of 0.82. Just like the original scale, the modified version also does not indicate any certain average score. The higher the score on the scale, the stronger is the Facebook addiction and vice-versa. Hence, the central score of the scale was considered to be the average score. The modified BFAS has a middle (central) score of 117.5, which is computed by the formula: (Highest Possible Score + Lowest Possible Score)/2. The modified BFAS was found to possess satisfactory convergent and discriminant validity among the respondents of Tripura as well.

Procedure: Rapport was established with the participants, before the administration of the questionnaire in their class room set up. After providing the proper instructions, they were requested to fill the questionnaires used in the study.

Thus primary data was collected from field survey in 2017-18 and later on tabulated for statistical analysis. Statistics like the box-whisker plot, Shapiro-Wilk's test were utilized to validate the data. Then, the descriptive statistics, t-test, one way ANOVA and Tukey's post-hoc

analysis were conducted to test the hypotheses of the study. Based on the results, the interpretation and conclusion were drawn.

Results

Table 1: Mean and SD of Facebook Addiction score of the sample

	N	M	SD
Facebook Addiction Score	3337	108.87	0.69

As seen in the above table, the students of Tripura have achieved a below-average mean score (108.87) of Facebook Addiction. It is below the mean score (117.5) of the modified BFAS Scale.

Hence, the first hypothesis could not be accepted.

Table 2: t-test involving the gender groups

Sex	N	M	SD	df	t	p
Male	1752	111.55	36.82	3335	4.10**	0.000
Female	1585	105.91	42.48			

**Significant at 0.01 level

As shown above, a highly significant difference in Facebook addiction is indicated among the gender groups ($p < 0.01$). The males have been found to possess a higher mean score than the females.

Hence, the second hypothesis has been accepted.

As shown in Table 3, the highest mean of Facebook Addiction has been noted in 'above 35 years' group. The next highest mean is noted in the 32-35 years group and the least mean is observed for the 'under 18 years' group.

The ANOVA result is found to be significant ($p < 0.01$). The post hoc analysis sheds more light on the difference between the five age groups. There exists a significant difference in Facebook addiction between the age group

Table 3: The post-hoc analysis between the age groups

Groups	n	Mean	SD	Tukey's HSD Comparisons				
				<18	18-24	25-31	32-35	>35
<18	671	101.75	33.85		0.000**	0.089	0.647	0.000**
18-24	2530	108.67	38.56			0.774	0.929	0.000**
25-31	64	114.27	30.69				0.998	0.000**
32-35	10	118.40	17.75					0.000**
>35	62	187.10	64.20					
F(4,3332)=104064.3; $p < 0.000$ **								

of 'under 18 years' and '18-24' & 'above 35 years'. However, the 'under 18' group does not differ significantly from '25-31' and '32-35 years' groups. The '18-24 years' group differs significantly only with under 18 and above 35 years group ($p<0.05$). The 25-31 years and 32-35 years group is found to differ significantly with the above 35 years group only ($p<0.01$). There exists a significant difference in Facebook addiction between the above 35 years group and all other groups.

Hence, the third hypothesis has been partially accepted.

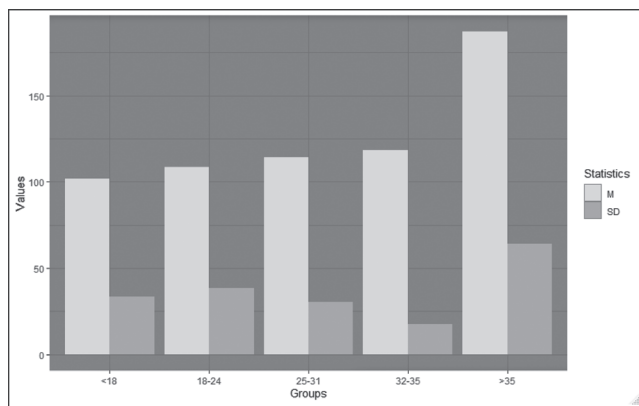


Fig.3: Illustrating the Mean and SD of the Age groups

Discussion: As shown in the results section, the Facebook addiction pattern of the students of Tripura is found to be below average. This finding concurs with Upadhyaya²⁶, where the prevalence rate of internet addiction in India was found to be only 0.7% among the college-going students. This can be attributed to the fact that Tripura has less access to the internet. In a study in 2011, it was found that only 1% of households in Tripura have access to the internet²⁷.

There are studies which also reveal that internet addiction is significantly prevalent in India. In a college in Coimbatore, India, 98% of the selected participants were found to be addicted to social networking sites²⁸. Also, as opposed to the present finding, it was found that 60% of students, were found to be addicted to their smartphones²⁹.

The present study also indicates that there exists a significant difference in Facebook addiction across the sexes, with the males having a higher mean addiction score than the women. A report in 2013³ revealed that 53% males and 43% females were addicted to Facebook. Facebook released its official data on the U.S., in January 2009 which reports 54% are female users; 46% are male (statista.com). Internet addiction is mostly found in young males;

however, the rate is rising in females³⁰. Different researches support the fact that females are more into social media than the males. Though women have more online social networks and they spend more time online than the males, it was concluded in a study that women use less internet than the men^{31, 32}. Women use the internet more to communicate and maintain relationships. But men are inclined to less rational activities. Women get more friend requests and the rate of acceptance is also high among them. Studies have indicated that, while the women are usually more drawn to social and interactive aspects of the internet, men are more drawn more towards video games. In a study conducted in Tripura, internet addiction was significantly higher in males (80%)³³. In another study, females of India are the ones who were found to be the most addicted³⁴.

In this study, significant differences among most of the five age groups have been found in terms of Facebook Addiction. A review of the literature however indicates the opposite³⁵. It was confirmed in a study that among the four age groups they included, no significant difference was found¹⁴. In another study, Balci and Golcu³⁵ found, where 27.7% of the participants were found to be addicted to Facebook; the mean age of the participants was 21.1 years. Adolescent and adult age groups are the most likely to access the internet³⁶. In a study in Tripura, the age group of 17-20 years is found to be the most addicted²⁹.

It is often said that 18 years onwards, people meet a lot of new persons, temporary or permanent. 18 years is the average age of getting into college and around this time, young adults have one of the best times in their lives- staying together, moving together and spending time together. So, it is likely that 18 to 31 years is the age when people will be the most connected to social media, phone calls and shall stick to their phones or other computing devices as a whole, which allows them to share a picture, chat and grab social attention. Since most school students in India below 18 years do not have their own mobile phones, and because they have their friend circles small and dominantly limited to the sphere of school, the usage of social media is quite limited. This is reflected in this present study by the lowest mean score in under 18 years group. In general, such is also the case above the age of 30, when people shed their friend circles and get involved in jobs, taking responsibilities of their families, thus having left with less time for social media like Facebook. The findings of the present study do not concur with this notion. After 30 years of age, as the present

study reflects, Facebook addiction scores have also been seen to rise.

Conclusion: The pattern of Facebook addiction in the Indian state of Tripura has been explored in this study. The college students of Tripura possess a below-average addiction level, as assessed by the modified BFAS. The men are found to be more addicted to Facebook than women. While the participants above 35 years of age are the most addicted to Facebook, those below 18 years of age are the least affected. The findings of this study shall help in protective measures to curb any probable problematic Facebook use in Tripura and other Indian states in the future.

Acknowledgement: The researchers would like to thank the Indian Council of Social Science Research (ICSSR) for the gracious grant for undertaking this study. □

DEEPAK UPADHYAYA¹
IVAN DAS²

¹Assistant Professor,
Department of Journalism and Mass Communication,
Tripura University, Suryamaninagar,
Agartala, Tripura, Pin - 799022.

Corresponding author: deepakupadhyaya@tripurauniv.in

²Research Scholar, Department of Psychology,
Tripura University, Suryamaninagar,
Agartala, Tripura, Pin-799022.

e-mail: ivandas94@gmail.com

Received: 26 October, 2021

Revised: 28 September, 2022

1. M. Shaw and D.W.Black. Internet addiction. *CNS Drugs*. May; **22** (5), 353-365 (2008).
2. D.Goel, A. Subramanyam and R. Kamath, *Indian Journal of Psychiatry*. 2013 Apr; **55** (2), 140-159 (2013).
3. S.Dixon. *Facebook users by country*. Retrieved September 22, 2022, from <https://www.statista.com/statistics/268136/top-15-countries-based-on-number-of-facebook-users/#:~:text=There%20are%20nearly%2039.65%20million,terms%20of%20largest%20population%20worldwide>.
4. P.A. Kirschner and A. C. Karpinsk, *Computers in Human Behavior*. Nov 1; **26** (6), 1237-1245 (2010).
5. T. Rajesh and B. Rangaiah B. *Heliyon*. Jan 1; **6** (1): e03184 (2020).
5. M.D. Griffiths and I. Dancaster, *Addictive Behaviors*. Jul 1; **20** (4), 543-548 (1995).
6. H. Xiuqin, Z. Huimin, L. Mengchen, W. Jinan, Z. Ying and T. Ran, *Cyberpsychology, Behavior, and Social Networking*. Aug 1; **13** (4):401-406 (2010).
7. E. J. Kim, K. Namkoong, T. Ku and S. J. Kim, *European Psychiatry*. Apr; **23** (3), 212-218 (2008).

8. K.Kim, E. Ryu, M.Y. Chon, E.J. Yeun, S.Y. Choi, J.S. Seo and B.W. Nam, *International Journal of Nursing Studies*. Feb 1; **43** (2), 185-192 (2006).
9. M.Shettar, R. Karkal, A. Kakunje, R. D. Mendonsa and V.M. Chandran. Facebook addiction and loneliness in the post-graduate students of a university in southern India. *International Journal of Social Psychiatry*. Jun; 63(4):325-329 (2017).
10. P. Norman, K. Elavarasan and T. Dhandapani, *International Journal of Community Medicine and Public Health*. Aug; **4** (8): 2999-3004 (2017).
11. N. Ljepava, R.R. Orr, S.Locke and C. Ross, *Computers in Human Behavior*. Jul 1; **29** (4), 1602-1607(2013).
12. S.G. Mazman and Y.K. Usluel, *Computers & Education*. Sep 1; **55** (2), 444-453 (2010).
13. S.K. Park, J.Y. Kim and C.B. Cho. *Adolescence*. Dec **1** (43), 172-188 (2008).
14. H. Jafarkarimi, A.T. Sim, R. Saadatdoost and J.M. Hee, *International Journal of Information and Education Technology*. Jun 1; **6** (6), 465-475 (2016).
15. D. P. Dash and S. Akhtar, *Indian Journal of Marketing*. Oct 1; **42** (10), 41-52 (2012).
16. S. Sarkar and P. Das, *Pedagogy of Learning*, **3** (2), 28-37 (2015).
17. J. Morahan-Martin and P. Schumacher, *Computers in Human Behavior*. Jan 31; **16** (1), 13-29 (2000).
18. M.R. Parks and K. Floyd, *Journal of Computer-mediated Communication*. Mar 1; **1** (4), 144-151 (1996).
19. C. Chou, L. Condrón, and J.C. Belland, *Educational Psychology Review*. Dec; **17** (4), 363-388 (2005).
20. K. Scherer, *Internet use Journal*. **38** (6), 655-662 (1997).
21. S.R. Gedam, S. Ghosh, L. Modi, A. Goyal and H. Mansharamani, *Indian Journal of Social Psychiatry*. Oct 1; **33** (4), 305-310 (2017).
22. A. Przepiorka and A. Blachnio, *Computers in Human Behavior*. Jul **1** (60), 13-18 (2016).
23. A.Blachnio and A. Przepiorka, *Computers in Human Behavior*. Jun **1** (59), 230-236 (2016).
24. R. Kaltiala-Heino, T. Lintonen and, A. Rimpela, *Addiction Research & Theory*. Feb 1; **12**(1), 89-96 (2004).
25. C.S.Andreassen, T. Torsheim, G.S.Brunborg and S. Pallesen, *Psychological Reports*. Apr; **110** (2), 501-517 (2012).
26. D. Upadhyaya, *Int. Journal of Research and Analytical Reviews*. **5** (4), 906-915 (2018).
27. C. A. Somashekharappa and N. Biradar, *Social Research Foundation*. Jan; **2** (1), 23-39 (2014).
28. D.Upadhyaya, and D. Deb, *Suraj Punj Journal for Multidisciplinary Research*. **8** (12), 1-8 (2018).
29. S.Naser Abed, R. Kamel Abd, I. Dawood Salim and N.A. Razzaq Jamal, *Mosul Journal of Nursing*. Jul **1**; **5** (1), 33-38 (2017).
30. L. T. Lam, Z. Peng, J. Mai and J. Jing, *Injury Prevention*. Dec 1; **15** (6), 403-408 (2009).

31. A. Acar, *Journal of Website Promotion*. **3 (1-2)**, 62-83 (2008).
32. J. G. Maldonado, M. Mora, S. Garca and P. Edipo, *Anuario de Psicologia*. **32 (2)**, 51-62 (2001).
33. M. A. Gayan, *Library Philosophy and Practice*. Apr **3 (2)**; 1-9 (2019).
34. P. Pundir, T. Andrews, V.S. Binu and R. Kamath, *International Journal of Community Med Public Health*. Oct; **3 (10)**, 2841-2849 (2016).
35. B. Alzougool, 5th *European Conference on Social Media*. Jun **21**; p. 1-8 (2018).
36. S. Balci and A. Golcu, *Selçuk Üniversitesi Türkiyat Araştırmaları Dergisi*. **1 (34)**, 255-78 (2013).
37. T. T. Sundari, *International Journal of Applied Research*. **1 (9)**, 898-905 (2015).
38. A. Chattopadhyay, *A Quarterly Bilingual Peer-Reviewed Journal for Social Sciences and Humanities*. **2 (36)**, 22-38 (2020).

NOTICE

Members who have opted for collecting their respective issues of *Science and Culture* from the office of *Science and Culture* are hereby informed that a copy of a given issue will be available for distribution between 25th of the last month of the issue till the end of the next month. As an example, January-February 2023 issue will be available for pick up from 25th February till 31st March, 2023. Members can also authorize someone to pick up the issue on his/her behalf.