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Original Research Article

INTERNET USAGE AND ITS ADDICTION: A CASE STUDY OF INDIAN UNIVERSITY STUDENTS

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ABSTRACT: The usage of internet is growing rapidly each year especially among students. The prevalence of internet addiction still remains unclear for most of the Indian university students. The purpose of this study was to examine the internet usage and its addiction in Indian university students. The sample was comprised of 300 university students, comprised of both sexes (150 female and 150 male), with ages ranging from 20 to 30 years. Dr. Kimberly Young internet addiction test questionnaire rating scale was used to collect the data. Descriptive analysis was used to describe the student's demographic characteristics and the prevalence of internet addiction. Our study explores internet addiction among some of the Indian university students. The results of present findings indicated that internet addiction does exist among some of Indian university students. In particular, $\leq 25y$ age students were identified as internet addicts than ≥ 25 y age students. It was also found that internet addiction is more common in male students as compared to female students. Moreover, our results showed that prevalence of internet addiction in postgraduate students was greater when compared to Ph.D. students. These findings suggest that internet addiction is more common among younger male Indian university students.

Keywords: Internet addiction, Dr. Kimberly Young questionnaire, prevalence, and Indian university students

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1. INTRODUCTION

Internet has a revolutionary impact on the day to day life of every individual. Internet has changed the various aspects of individual life in the way individuals entertain themselves and interact with each other, with the infinite social networking sites. Students are facing several problems because they spend significant time surfing irrelevant web sites, using social media, and playing games on the internet which leads to internet addiction. Excessive use of social applications, like online chatting [1],[2],[3], social networking sites [4],[5] such as Facebook, Instagram [6],[7], and online instant messengers [8],[9],[10] have been found to be associated with internet addiction. Many studies have reported that the internet users are at risk of developing an "internet addiction" [11],[12]. Numerous literatures believed that there is an emergence of internet addiction among users which may lead to the significant ill-effects [30],[7],[14],[15],[16],[17],[18],[19]. The prevalence of internet addiction in university students was noticed in several literature. Studies using internet addiction questionnaire was conducted among the Malaysian medical students and observed 36.9 to 81% internet addiction [20],[21]. 1.6% internet addiction was revealed in Turkey students by using the Young's Internet Addiction Test (YIAT) [22]. 38.2 to 63.5% internet addiction was observed among the Japanese university students with the YIAT study instrument [23],[24],[25]. Furthermore, 16.8% internet addiction was found in Lebanon university students and 40% in Jordan university students [26],[27]. The more time spent in online activities, the more inclination of internet addiction is shown among university students. Internet addiction should not be taken lightly, as it is an alarming issue which has significant impact on the health problems of students. Students need to use internet judiciously and productively to prevent the underlying risks aforementioned. Some researchers also revealed that internet addiction increases the risk of many negative social and health outcomes, including poor academic performance, harmful personality effects, anxiety and depression. Therefore, the goal of this study was to examine the effect of internet usage on internet addiction, among the university students.

2. MATERIALS AND METHODS

The present study focuses on Indian university students. Its main purpose is to explore the existing risk of internet addiction for postgraduate and Ph.D. students of Pandit Ravishankar Shukla University, Raipur, Chhattisgarh, India. The present cross-sectional questionnaire-based survey was conducted from March 01, 2016 to July 06, 2016. Out of 314 students, a total of 300 students who responded were part of this study. Total three hundred (300) randomly selected apparently healthy students (aged between 20 and 30 years) were willingly participated in this study. Out of the included individuals 150 were males and 150 were females. Student suffering from sleep disturbances, headache, and psychiatric disorders (as per their self-reporting through the questionnaire) was not included in the present study. Complete confidentiality regarding their identity was maintained.

We used Internet Addiction Test (IAT) by Dr. Kimberly Young, i.e., the questionnaire. IAT is a

Malik & Panwar RJLBPCS 2023 www.rjlbpcs.com Life Science Informatics Publications reliable and valid measure of addictive use of internet, developed by Dr. Kimberly Young. It consists of 20 items that measures mild, moderate and severe level of internet addiction. IAT questionnaire by Dr. Kimberly Young were used for assessment of internet addiction. IAT contains 20 self-rated questions. Twenty self-rated questions are combined to form scores, and sum of these twenty self-rated questions scores yields one "global" score. The score (= 22 to 49) indicates average on-line user having mild problems; the score (= 50 to 79) indicates moderate problems because of the internet; and whereas the score (= 80 to 100) indicates internet usage is causing severe problems in their life. Additionally, biographical information sheet were implemented to record the demographic and personal information, such as name, sex, age, date of birth, children, marital status, weight, height, designation, education, background (rural/ urban), family-income, income of source, work type, blood group, food habits (veg/ non-veg), smoking habit, consumption of alcohol, sleeping pills

use, major health problem, if any, colour of skin, etc., from all the students. All the collected data

3. RESULTS AND DISCUSSION

was analysed by applying descriptive statistics.

Prevalence of internet addiction in male and female students

The responses from the university students were used to record the prevalence of internet addiction. According to their self-reports of internet use, Figure 1 illustrates the percent frequency of male and female, at group level of different *internet addiction test* namely *mild, moderate and severe*. The higher prevalence of "severe internet addiction" was found in male students (73.33 %) than in female students (53.33%), although the "moderate" and "mild internet addiction" were detected maximum in female students (33.33 & 13.33%) as compared to male students (23.33% & 3.33%) respectively.

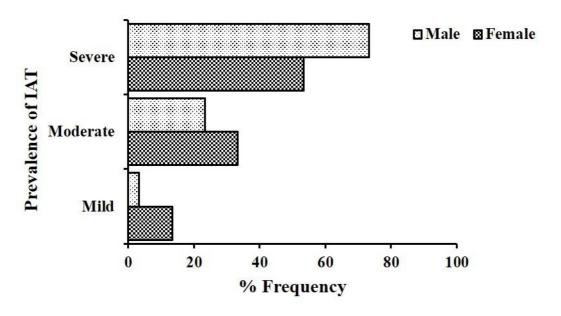


Figure 1. Prevalence of *internet addiction* in different gender groups (Male and Female).

Prevalence of *internet addiction* in \geq 25 y age and \leq 25 y age students

Percent frequency of $\geq 25y$ and ≤ 25 y age students at group level were constructed for "mild", "moderate" and "severe internet addiction" and shown in Figure 2. Results of descriptive statistics revealed that internet addiction in students of ≤ 25 y age was significantly higher when compared to the ≥ 25 y age students.

The percent frequency of "severe internet addiction" in ≤ 25 y age students (90%) was significantly higher from ≥ 25 y (36.6%). The "moderate internet addiction" in ≤ 25 y age students (45.33%) was also found significantly higher in comparison to ≥ 25 y (11.33%). The ≤ 25 y age students (15.33%) showed higher percent frequency of "mild internet addiction" than in ≥ 25 y (1.33%).

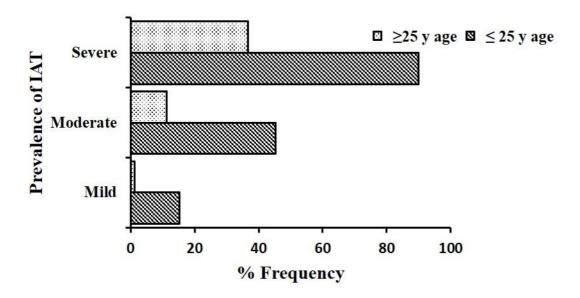


Figure 2. Prevalence of *internet addiction* in different age groups (≥ 25 y age and ≤ 25 y age students).

Prevalence of internet addiction in postgraduate and Ph.D. students

The prevalence of *internet addiction* was noticed in postgraduate and Ph.D. students and represented in Figure 3. The maximum *internet addiction* was found in postgraduate students as compared to Ph.D. students. Results of descriptive statistics indicated that *internet addiction* was significantly higher in postgraduate students (90% and 29.33%) as compared to the Ph.D. students (16.67% and 26.67%) among the groups namely "severe", and "moderate" respectively. Whereas "mild internet addiction" was found slightly higher in Ph.D. students (19.33%) as compared to postgraduate students (18%).

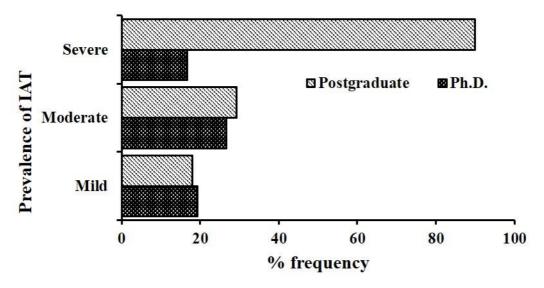


Figure 3. Prevalence of *internet addiction* among postgraduate and Ph.D. university students.

The internet is an integral part of everyone's life. Internet is being an unavoidable part of day-to-day life because the usage of internet has been growing explosively worldwide [3]. With the increase in dependence of internet, people are gradually getting addicted towards it. University going students are highly vulnerable to the internet addiction. Several peer reviewed studies documented a high prevalence of internet addiction among university students. Factors associated with internet addiction were spending more time, having mental distress, playing online games and so on [28],[29],[30],[31]. According to some authors [32],[33],[34],[35],[36] high internet dependency can have negative consequences for students, especially regarding academic careers, cognitive functioning, and may lead to anxiety and stress. In the present study, prevalence of internet addiction was found higher in male students than in female. Our findings are consistent with the findings of previous studies, which also revealed a higher prevalence of internet addiction in men than in women [37],[38],[39],[40],[32], gender playing a significant role in this respect. It appears that male students are more internet addicted than female students. Additionally, our present findings are supported by another studies that concluded male show more symptoms of internet addiction than female [19],[41],[42]. Some studies have shown that age is a potential factor that positively correlates with the risk of internet addiction. Internet addiction is in some way connected with age. Our research confirmed that prevalence of severe, moderate, and mild internet addiction in students of ≤ 25 y age was significantly higher when compared to the ≥ 25 y age students. In this context, our results of the research related to students age and internet addiction correspond to studies showing that younger respondents have higher prevalence of internet addiction as compared with advancing age [43],[44],[45]. In addition, our present investigation revealed that a significantly higher prevalence of severe internet addiction was observed in postgraduate students than in Ph.D. students. Our result also depicted that prevalence of mild and moderate internet addiction was significantly higher among the postgraduate students. However, there is no concrete data for

Malik & Panwar RJLBPCS 2023 www.rjlbpcs.com Life Science Informatics Publications comparison of current finding that associates internet addiction in postgraduate and Ph.D. students. Several limitations of the present study should also be considered. The relatively small study population was one such issue. Moreover, all of the participants were university students, and may not represent the total population. All subjects were well-educated adults. Longitudinal studies and samples with different educational and age backgrounds are needed.

4. CONCLUSION

Summing up, it can be stated that internet addiction is more common among younger male Indian university students. Similar findings were also reported in several peer reviewed literature. However, more research on this topic is needed to understand the mechanism behind.

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ETHICS APPROVAL AND CONSENT TO PARTICIPATE

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HUMAN AND ANIMAL RIGHTS

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CONSENT FOR PUBLICATION

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CONFLICT OF INTEREST

No potential conflict of interest was reported by the authors.

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REFERENCES

- 1. Huang YR. Identity and intimacy crises and their relationship to internet dependence among college students. CyberPsychology & Behavior. 2006; 9:571-576.
- 2. Kuss DJ, Griffiths MD. Online social networking and addiction—a review of the psychological literature. International journal of environmental research and public health. 2011; 8:3528-3552.
- 3. Kurniasih N, Abdillah LA, Sudarsana IK, Yogantara I, Astawa I, Nanuru RF, Miagina A, Sabarua JO, Jamil M, Tandisalla J, Duan E. Prototype application hate speech detection website using string matching and searching algorithm. International Journal of Engineering & Technology. 2018; 7:62-64.
- 4. Kuss DJ, Griffiths MD. Internet and gaming addiction: a systematic literature review of neuroimaging studies. Brain sciences. 2012; 2:347-374.

- Rahim R, Simarmata J, Purba A, Prayogi MA, Sapta A, Krianto O, Suharman S. Internet based remote desktop using INDY and socket component. International Journal of Engineering & Technology. 2018; 7:44-47.
- 6. Kittinger R, Correia CJ, Irons JG. Relationship between Facebook use and problematic Internet use among college students. Cyberpsychology, Behavior, and Social Networking. 2012; 15:324-327.
- 7. Young KS. Caught in the net: How to recognize the signs of internet addiction--and a winning strategy for recovery. John Wiley & Sons, 1998.
- 8. Leung L. Net-generation attributes and seductive properties of the internet as predictors of online activities and internet addiction. CyberPsychology & Behavior. 2004; 7:333-348.
- 9. Yuen CN, Lavin MJ. Internet dependence in the collegiate population: the role of shyness. CyberPsychology & Behavior. 2004; 7:379-383.
- 10. Morgan C, Cotten SR. The relationship between Internet activities and depressive symptoms in a sample of college freshmen. CyberPsychology & Behavior. 2003; 6:133-142.
- 11. Randler C, Horzum MB, Vollmer C. Internet addiction and its relationship to chronotype and personality in a Turkish University student sample. Social Science Computer Review. 2014; 32:484-495.
- 12. Leung L, Lee PSN. Impact of Internet literacy, Internet addiction symptoms, and Internet activities on academic performance. Social Science Computer Review. 2012; 30:403-418.
- 13. Kraut R, Patterson M, Lundmark V, Kiesler S, Mukophadhyay T, Scherlis W. Internet paradox: A social technology that reduces social involvement and psychological well-being?. American psychologist. 1998; 53:1017.
- 14. McKenna KYA, Bargh JA. Plan 9 from cyberspace: The implications of Internet for personality and social psychology. Personality and Social Psychology Review. 2000; 4:57-75.
- 15. Wade L, Sociological Research Methods. Johnson. 2001.
- 16. Choi K, Son H, Park M, Han J, Kim K, Lee B. Internet overuse and excessive daytime sleepiness in adolescents. Psychiatry and clinical neurosciences. 2009; 63:455-462.
- 17. Lin SS, Tsai CC. Sensation seeking and internet dependence of Taiwanese high school adolescents. Computers in human behavior. 2002; 18:411-26.
- 18. Chou C, Hsiao NC. Internet addiction, usage and gratifications-the Taiwan's college students' case. Computer & Education. 2000; 35:65-80.
- 19. Scherer K. College life online: Healthy andun healthy Internet use. InComunicación presentada en the Annual Convention of the American Psychological Association 1997.
- 20. Ching SM, Hamidin A, Vasudevan R, Sazlyna MS, Wan Aliaa WS, Foo YL, Yee A, Hoo FK. Prevalence and factors associated with internet addiction among medical students-A cross-sectional study in Malaysia. Medical Journal of Malaysia. 2017; 72:7-11.

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- 21. Haque M, Rahman NA, Majumder MA, Haque SZ, Kamal ZM, Islam Z, Haque AE, Rahman NI, Alattraqchi AG. Internet use and addiction among medical students of Universiti Sultan Zainal Abidin, Malaysia. Psychology research and behavior management. 2016; 297-307.
- 22. Seyrek S, Cop E, Sinir H, Ugurlu M, Şenel S. Factors associated with Internet addiction: Cross-sectional study of Turkish adolescents. Pediatrics international. 2017; 59:218-222.
- 23. Kitazawa M, Yoshimura M, Murata M, Sato-Fujimoto Y, Hitokoto H, Mimura M, Tsubota K, Kishimoto T. Associations between problematic Internet use and psychiatric symptoms among university students in Japan. Psychiatry and clinical neurosciences. 2018; 72:531-539.
- 24. Poli R. Internet addiction update: Diagnostic criteria, assessment and prevalence. Neuropsychiatry. 2017;7.
- 25. Tateno M, Teo AR, Shirasaka T, Tayama M, Watabe M, Kato TA. Internet addiction and self-evaluated attention-deficit hyperactivity disorder traits among Japanese college students. Psychiatry and clinical neurosciences. 2016; 70:567-572.
- 26. Younes F, Halawi G, Jabbour H, El Osta N, Karam L, Hajj A, Rabbaa Khabbaz L. Internet addiction and relationships with insomnia, anxiety, depression, stress and self-esteem in university students: A cross-sectional designed study. PloS one. 2016 Sep 12;11(9):e0161126
- 27. Al-Gamal E, Alzayyat A, Ahmad MM. Prevalence of Internet addiction and its association with psychological distress and coping strategies among university students in J ordan. Perspectives in psychiatric care. 2016; 52:49-61.
- 28. Zenebe Y, Kunno K, Mekonnen M, Bewuket A, Birkie M, Necho M, Seid M, Tsegaw M, Akele B. Prevalence and associated factors of internet addiction among undergraduate university students in Ethiopia: a community university-based cross-sectional study. BMC psychology. 2021; 9.
- 29. Caplan S, Williams D, Yee N. Problematic Internet use and psychosocial well-being among MMO players. Computers in human behavior. 2009; 25:1312-1319.
- 30. Kuss DJ, Louws J, Wiers RW. Online gaming addiction? Motives predict addictive play behavior in massively multiplayer online role-playing games. Cyberpsychology, Behavior, and Social Networking. 2012; 15:480-485.
- 31. Caplan SE, High AC. Online social interaction, psychosocial well-being, and problematic Internet use. Internet addiction: A handbook and guide to evaluation and treatment. 2007; 20:35-53.
- 32. Hayat AA, Kojuri J, Mitra Amini MD. Academic procrastination of medical students: The role of Internet addiction. Journal of advances in medical education & professionalism. 2020; 8:83.
- 33. Shahnaz I, Karim AK. The impact of Internet addiction on life satisfaction and life engagement in young adults. Universal Journal of Psychology. 2014; 2:273-284.

- 34. Park MH, Park EJ, Choi J, Chai S, Lee JH, Lee C, Kim DJ. Preliminary study of Internet addiction and cognitive function in adolescents based on IQ tests. Psychiatry Research. 2011; 190:275-281.
- 35. Noreen A. Relationship between internet addiction and academic performance among university undergraduates. Educational Research and Reviews. 2013; 8:1793-1796.
- 36. Usman NH, Alavi M, Shafeq SM. Relationship between internet addiction and academic performance among foreign undergraduate students. Procedia-Social and Behavioral Sciences. 2014; 114:845-851.
- 37. Li L, Xu DD, Chai JX, Wang D, Li L, Zhang L, Lu L, Ng CH, Ungvari GS, Mei SL, Xiang YT. Prevalence of Internet addiction disorder in Chinese university students: A comprehensive meta-analysis of observational studies. Journal of behavioral addictions. 2018; 7:610-623.
- 38. Milková E, Ambrožová P. Internet use and abuse: connection with internet addiction. Journal on Efficiency and Responsibility in Education and Science. 2018; 11:22-28.
- 39. Hinojo-Lucena FJ, Aznar-Díaz I, Cáceres-Reche MP, Trujillo-Torres JM, Romero-Rodríguez JM. Problematic internet use as a predictor of eating disorders in students: a systematic review and meta-analysis study. Nutrients. 2019; 11:2151.
- 40. Grover S, Sahoo S, Bhalla A, Avasthi A. Problematic internet use and its correlates among resident doctors of a tertiary care hospital of North India: A cross-sectional study. Asian Journal of Psychiatry. 2019; 39:42-47.
- 41. Morahan-Martin J, Schumacher P. Incidence and correlates of pathological Internet use among college students. Computers in human behavior. 2000; 16:13-29.
- 42. Griffiths MD. Internet addiction: does it really exist. Psychology and the Internet. 1998; 61-75.
- 43. Hsieh KY, Hsiao RC, Yang YH, Liu TL, Yen CF. Predictive effects of sex, age, depression, and problematic behaviors on the incidence and remission of internet addiction in college students: a prospective study. International journal of environmental research and public health. 2018; 15:2861.
- 44. Grover S, Sahoo S, Bhalla A, Avasthi A. Problematic internet use and its correlates among resident doctors of a tertiary care hospital of North India: A cross-sectional study. Asian Journal of Psychiatry. 2019; 39:42-47.
- 45. Chiu CJ. Relationship between internet behaviors and social engagement in middle-aged and older adults in Taiwan. International Journal of Environmental Research and Public Health. 2019; 16:416.