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The Nexus of Internet Addiction and Obsessive-Compulsive Symptoms: A Youth-Centric Analysis

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Abstract: ***The increasing reliance on the internet among young individuals has raised concerns about its potential psychological consequences. The present study aimed to examine the relationship between internet addiction and obsessive-compulsive symptoms among youth. A cross-sectional research design was employed with a sample of 600 participants aged 16–22 years. Standardized instruments, namely the Internet Addiction Test (IAT) and the Obsessive–Compulsive Inventory–Revised (OCI-R), were used for data collection. Statistical analyses included descriptive statistics, independent samples t-tests, Pearson correlation, and simple linear regression. Results indicated that female participants reported significantly higher levels of internet addiction and obsessive–compulsive symptoms compared to males. A moderately strong positive correlation was found between internet addiction and obsessive–compulsive symptoms ($r = .588$, $p < .01$). Regression analysis revealed that internet addiction significantly predicted obsessive–compulsive symptoms ($\beta = .588$, $p < .001$), explaining 34.6% of the variance. The findings highlight the importance of early identification and intervention strategies to address problematic internet use among youth.***

Keywords: Internet Addiction, Obsessive–Compulsive Symptoms, Youth

1. Introduction

The digital revolution has profoundly transformed the lifestyle of individuals across the globe, particularly among adolescents and young adults. The internet has become an indispensable tool for education, communication, entertainment, and social interaction. In India, the rapid expansion of affordable smartphones and high-speed internet services, especially following the launch of low-cost data plans, has significantly increased online engagement among youth. According to the Telecom Regulatory Authority of India (TRAI), India has witnessed a substantial rise in internet users, with young people representing the largest proportion of this digital population.

While the internet offers numerous benefits, excessive and uncontrolled use can lead to Internet Addiction (IA), also referred to as Problematic Internet Use (PIU). First conceptualized by Young (1998), internet addiction is characterized by excessive preoccupation with online activities, loss of control over usage, withdrawal symptoms, tolerance, and impairment in academic, social, and psychological functioning. Although not formally recognized as a distinct disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), it is widely studied as a behavioral addiction, sharing similarities with substance-related and addictive disorders (American Psychiatric Association, 2022; Brand et al., 2019).

Obsessive–Compulsive Symptoms

Obsessive–Compulsive Disorder (OCD) is a chronic and disabling mental health condition characterized by intrusive, unwanted thoughts (obsessions) and repetitive behaviors or mental acts (compulsions) performed to alleviate anxiety (American Psychiatric Association, 2022). Even when diagnostic criteria are not fully met; obsessive–compulsive symptoms are prevalent in the general population and can significantly impair functioning, particularly during adolescence and young adulthood, a developmental stage marked by emotional vulnerability and identity formation.

The compulsive and repetitive nature of internet use such as constant checking of social media, online gaming, or information seeking resembles the behavioral patterns observed in OCD. Both conditions involve impaired inhibitory control, reinforcement mechanisms, and maladaptive coping strategies (Fineberg et al., 2018). Neurobiological evidence further suggests overlapping dysfunctions in fronto-striatal circuits and reward-processing systems (Brand et al., 2019).

Davis (2001) proposed the Cognitive-Behavioral Model of Problematic Internet Use, which posits that maladaptive cognitions, such as negative self-beliefs and social anxiety, interact with reinforcement mechanisms to maintain excessive internet use. These maladaptive cognitions are also central to obsessive–compulsive symptomatology, thereby providing a theoretical basis for their association.

The Interaction of Person–Affect–Cognition–Execution (I-PACE) Model (Brand et al., 2019) explains the development of specific internet-use disorders. The model emphasizes the interaction of predisposing factors (e.g., personality traits, psychopathology), affective and cognitive responses, and executive functioning deficits. Obsessive–compulsive tendencies are considered significant vulnerability factors within this framework. Both internet addiction and obsessive–compulsive symptoms can be conceptualized within a compulsivity spectrum, characterized by repetitive behaviors performed despite adverse consequences (Robbins et al., 2012). This framework supports the hypothesis that excessive internet use may either mimic or exacerbate obsessive–compulsive tendencies.

Objectives of the Study

- To assess internet addiction and obsessive–compulsive symptoms among youth.
- To examine gender differences in these variables.
- To investigate the relationship between internet addiction and obsessive–compulsive symptoms.
- To determine whether internet addiction predicts obsessive–compulsive symptoms.

2. Methodology

The study employed a cross-sectional, correlational research design to examine the relationship between internet addiction and obsessive–compulsive symptoms among youth. The study comprised a total of 600 youth participants aged between 16 and 22 years were recruited from schools and colleges in urban and rural areas of Purvanchal Region (Jaunpur, Khalilabad, and Basti) of Uttar Pradesh, India, using a random sampling method. The majority of the participants (77.7%) were in the 16–18 years age group, while the remaining 22.3% belonged to the 19–22 years age group, indicating a predominantly adolescent sample. In terms of gender distribution, the sample included 327 females (54.5%) and 273 males (45.5%), reflecting a slightly higher representation of female participants. Regarding educational status, most respondents (81.0%) were studying in secondary and higher secondary classes (10th–12th), whereas 19.0% were enrolled in undergraduate and postgraduate (UG–PG) programs. Data were collected using the Internet Addiction Test (IAT), the Obsessive–Compulsive Inventory–Revised (OCI-R), and a socio-demographic information sheet. Ethical approval and institutional permissions were obtained, and informed consent was secured from all participants and parents of minors. Questionnaires were administered in classroom settings, and the data were analyzed using SPSS.

Inclusion Criteria:

- Aged between 16 and 22 years.
- Enrolled in a recognized school or college.
- Regular access to the internet.
- Ability to understand Hindi or English.
- Provided informed consent (and parental consent for minors).

Exclusion Criteria:

- Diagnosed severe psychiatric or neurological disorders.
- Cognitive impairments affecting comprehension.
- Incomplete questionnaire responses.

Instruments

Data were collected using standardized and reliable self-report measures. The Internet Addiction Test (IAT) developed by Young (1998) is a 20-item scale designed to assess the severity of problematic internet use. Each item is rated on a 5-point Likert scale ranging from 1 (rarely) to 5 (always), with higher total scores indicating greater levels of internet addiction. Additionally, the Obsessive–Compulsive Inventory–Revised (OCI-R) developed by Foa et al. (2002) is an 18-item instrument used to measure the distress associated with obsessive–compulsive symptoms across six domains: washing, checking, ordering, obsessing, hoarding, and neutralizing. Responses are recorded on a 5-point Likert scale ranging from 0 (not at all) to 4 (extremely), with higher scores reflecting greater symptom severity.

Procedure

Participants were recruited from recognized educational institutions using a random sampling method. Prior to data collection, permission was obtained from the respective institutional authorities. All participants were informed about the purpose and nature of the study, and written informed consent was obtained from each participant. For respondents below the age of 18 years, parental or guardian consent was secured in addition to the participant's assent. The questionnaires were administered in group settings within classroom environments, ensuring minimal disruption to academic activities. Participants were instructed clearly on how to respond to the items and were assured that there were no right or wrong answers. Confidentiality and anonymity were strictly maintained; no personally identifiable information was collected, and responses were used solely for research purposes. Participation was entirely voluntary, and individuals were informed of their right to withdraw from the study at any stage without any hesitation. The study adhered to established ethical guidelines for psychological research, ensuring respect for participants' dignity, privacy, and well-being. Additionally, participants were provided with contact information for psychological support services should any discomfort arise while completing the questionnaires.

Statistical Analysis

Data were analyzed using the (SPSS). Descriptive statistics, including means and standard deviations, were computed to summarize the levels of internet addiction and obsessive–compulsive symptoms among the participants. Independent samples t-tests were conducted to examine gender differences in these variables. The Pearson product–moment correlation analysis was employed to assess the strength and direction of the relationship between internet addiction and obsessive–compulsive symptoms. Furthermore, simple linear regression analysis was performed to determine whether internet addiction significantly predicted obsessive–compulsive symptoms. Statistical significance was set at $p < .05$ and $p < .01$

3. Result

The present study examined internet addiction and obsessive-compulsive symptoms among youth aged 16–22 years. The analysis revealed statistically significant differences between male and female participants on both variables.

Table 1: Mean, SD of Internet Addiction and Obsessive–Compulsive Symptoms

Variable	Gender	N	Mean	SD	t-value	p-value
Internet Addiction	Male	273	38.61	14.90	-3.831	< .01**
	Female	327	43.03	13.34		
Obsessive–Compulsive Symptoms	Male	273	30.41	10.36	-2.326	< .05*
	Female	327	32.38	10.33		

Table 1 The independent samples t-test indicated a significant gender difference in internet addiction scores ($t = -3.831$, $p < .01$). Female participants ($M = 43.03$, $SD = 13.34$) reported significantly higher levels of internet addiction compared to male participants ($M = 38.61$, $SD = 14.90$). A statistically significant gender difference was also observed in obsessive-compulsive symptoms ($t = -2.326$, $p < .05$). Females ($M = 32.38$, $SD = 10.33$) scored higher than males ($M = 30.41$, $SD = 10.36$), indicating a greater tendency toward obsessive thoughts and compulsive behaviors among female participants. This finding suggests that females in the present sample may be more engaged in online activities, potentially due to increased use of social networking platforms, online communication, and academic purposes.

Table 2: Correlation between Internet Addiction and Obsessive–Compulsive Symptoms

Variables	Internet Addiction	Obsessive–Compulsive Symptoms
Internet Addiction	1	.588**
Obsessive–Compulsive Symptoms	.588**	1

** $p < .01$ (two-tailed)

Table 2 revealed a significant positive relationship between Internet Addiction and Obsessive–Compulsive Symptoms, $r(598) = .588$, $p < .01$, indicating that higher levels of internet addiction are associated with increased obsessive–compulsive tendencies among youth.

Table 3: Linear Regression Analysis

	Predictor	B	SE	β	t	p
Model 1	Constant	13.872				< .001
	Internet Addiction	0.429	1.047		13.244	< .001
			0.024	.588	17.793	
	R^2	.346				
	F(1, 598)	316.584				< .001

B = Unstandardized regression coefficient; β = Standardized regression coefficient; R^2 = Coefficient of determination. Dependent Variable: Obsessive–Compulsive Symptoms. ***p* < .001.**

Table 3 A simple linear regression analysis was conducted to examine whether internet addiction predicts obsessive–compulsive symptoms among youth. The model was statistically significant, $F(1, 598) = 316.584$, $p < .001$, explaining 34.6% of the variance in obsessive–compulsive symptoms ($R^2 = .346$). Internet addiction emerged as a significant positive predictor ($B = 0.429$, $SE = 0.024$, $\beta = .588$, $t = 17.793$, $p < .001$).

4. Discussion

The present study reveals a significant and positive relationship between internet addiction and obsessive–compulsive symptoms among youth. Internet addiction emerged as a strong predictor of obsessive–compulsive tendencies, explaining a substantial proportion of the variance, thereby highlighting its crucial role in influencing the psychological well-being of young individuals. Furthermore, the findings indicate notable gender differences, with young girls demonstrating greater susceptibility to both internet addiction and obsessive–compulsive symptoms compared to their male counterparts. These results underscore the importance of early identification, timely screening, and the development of gender-sensitive preventive and intervention strategies aimed at reducing problematic internet use and associated psychological distress.

5. Conclusion

This study further enriches the existing literature on behavioral addictions by providing empirical evidence of the interrelationship between internet addiction and obsessive-compulsive tendencies among youth. The findings of this study hold significant implications for researchers, practitioners, educators, and policymakers, advocating for early screening, awareness programs, and targeted mental health interventions within educational institutions. Such proactive measures are essential for promoting healthy internet usage and enhancing the psychological well-being of young people.

References

[1] Brand, M., Wegmann, E., Stark, R., Müller, A., Wölfling, K., Robbins, T. W., & Potenza, M. N. (2019). The Interaction of Person–Affect–Cognition–Execution (I-PACE) model for addictive behaviors: Update and implications. *Neuroscience & Biobehavioral Reviews, 104*, 1–10. https://doi.org/10.1016/j.neubiorev.2019.06.032

[2] Carli V, Durkee T, Wasserman D, Hadlaczky G, Despalins R, Kramarz E, Wasserman C, Sarchiapone M, Hoven CW, Brunner R, Kaess M. The association between pathological internet use and comorbid psychopathology: a systematic review. Psychopathology. 2013; 46(1):1-13. doi: 10.1159/000337971. Epub 2012 Jul 31. PMID: 22854219.

[3] Davis, R. A. (2001). A cognitive–behavioral model of pathological Internet use. *Computers in Human Behavior, 17*(2), 187–195. https://doi.org/10.1016/S0747-5632(00)00041-8

[4] Fineberg, N. A., et al. (2018). Obsessive–compulsive disorder: Advances in diagnosis and treatment. *The Lancet Psychiatry, 5*(1), 71–84.

[5] Ko, C. H., Yen, J. Y., Yen, C. F., Chen, C. S., & Chen, C. C. (2012). The association between internet addiction and psychiatric disorder. *European Psychiatry, 27*(1), 1–8.

[6] Kuss DJ, Lopez-Fernandez O. Internet addiction and problematic Internet use: A systematic review of clinical research. World J Psychiatry. 2016 Mar 22;6(1):143-76. doi: 10.5498/wjp.v6.i1.143. PMID: 27014605; PMCID: PMC4804263.

[7] Robbins TW, Gillan CM, Smith DG, de Wit S, Ersche KD. Neurocognitive endophenotypes of impulsivity and compulsivity: towards dimensional psychiatry. Trends Cogn Sci. 2012 Jan; 16(1):81-91. doi: 10.1016/j.tics.2011.11.009. Epub 2011 Dec 10. PMID: 22155014.

[8] Young, K. S. (1998). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology & Behavior, 1*(3), 237–244. https://doi.org/10.1089/cpb.1998.1.237

[9] Joseph J, Varghese A, Vr V, Dhandapani M, Grover S, Sharma S, Khakha D, Mann S, Varkey BP. Prevalence of internet addiction among college students in the Indian setting: a systematic review and meta-analysis. Gen Psychiatr. 2021 Aug 20;34(4):e100496. doi: 10.1136/gpsych-2021-100496. PMID: 34504996; PMCID: PMC8381302.

[10] Kumar A, Nayar KR. COVID 19 and its mental health consequences. *J Ment Health.* 2021 Feb;30(1):1-2. doi: 10.1080/09638237.2020.1757052. Epub 2020 Apr 27. PMID: 32339041.

[11] Math SB, Thoduguli J, Janardhan Reddy YC, Manoj PN, Zutshi A, Rajkumar RP, et al. A 5-year course of predominantly obsessive vs. mixed subtypes of obsessive-compulsive disorder. Indian J Psychiatry. 2007;49:250–5. doi: 10.4103/0019-5545.37664.

[12] Reddy YC, Rao NP, Khanna S. An overview of Indian research in obsessive compulsive disorder. Indian J Psychiatry. 2010 Jan;52(Suppl 1):S200-9. doi: 10.4103/0019-5545.69233. PMID: 21836679; PMCID: PMC3146215.

[13] Shweta Singh, Manjistha Datta, Pawan Gupta, Saakshi Batra, Predictors of 'problematic internet use' among adolescents and adults amid the pandemic in India, *Clinical Epidemiology and Global Health*, Volume 15, 2022, 101036, ISSN 2213-3984, https://doi.org/10.1016/j.cegh.2022.101036.

[14] Tadpatrikar A, Sharma MK, Amudhan S, Desai G. The Prevalence and Correlates of Internet Addiction in India as Assessed by Young's Internet Addiction Test: A Systematic Review and Meta-analysis. *Indian Journal of Psychological Medicine*. 2024;46(6):511-520. doi:10.1177/02537176241232110

[15] American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.; DSM-5-TR).

[16] Brand M, Young KS and Laier C (2014) Prefrontal Control and Internet Addiction: A Theoretical Model and Review of Neuropsychological and Neuroimaging Findings. *Front. Hum. Neurosci*. 8:375. doi: 10.3389/fnhum.2014.00375

[17] Foa, E. B., Huppert, J. D., Leiberg, S., Langner, R., Kichic, R., Hajcak, G., & Salkovskis, P. M. (2002). The Obsessive-Compulsive Inventory: Development and validation of a short version. *Psychological Assessment, 14*(4), 485–496. https://doi.org/10.1037/1040-3590.14.4.485.

[18] Starcevic V, Aboujaoude E. Internet addiction: reappraisal of an increasingly inadequate concept. *CNS Spectr*. 2017 Feb; 22(1):7-13. doi: 10.1017/S1092852915000863. Epub 2016 Feb 1. PMID: 26831456.