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Dr. Virendra Pratap Yadav
Assistant Professor,
Department of Applied
Psychology, SPM College,
University of Delhi,
New Delhi, India

Poulami De
M.Phil. Scholar, RINPAS,
Kanke, Jharkhand, India

Anupam Pandey
Ph.D. Scholar, Department of
Psychology, University of
Delhi, New Delhi, India

Corresponding Author:
Dr. Virendra Pratap Yadav
Assistant Professor,
Department of Applied
Psychology, SPM College,
University of Delhi,
New Delhi, India

Internet Addiction and its association with Self-Esteem

Dr. Virendra Pratap Yadav, Poulami De and Anupam Pandey

Abstract
The present study aimed to investigate the association of internet addiction with self-esteem, and to inquire gender difference on these variables. The sample for this descriptive-analytic correlational study consisted of 100 college going students equally divided into males and females belonging to Delhi and NCR Region (India). The participants' age lies in the range of 17 to 25 years. The internet addiction was measured through Young's Internet Addiction Test, whereas self-esteem was measured by Rosenberg's Self Esteem scale. The data were analyzed on SPSS employing t-test and correlation. The result indicated a significant negative association between internet addiction and self-esteem. Significant gender differences were found on Internet addiction and self-esteem and males were reported high on both the measures in comparison to female. Today, internet being a source of knowledge and a medium of entertainment has taken space in human's life. But, its shortcomings have created challenges as well as research space to explore the ways people are being affected by the Internet. As it was observed in the study that self-esteem is negatively associated with internet addiction, so need arises to plan an intervention based research to optimize the self-esteem.

Keywords: Internet addiction, self-esteem, gender.

Introduction
In today's world, people are using the internet in great amount than they were using a decade before, and the number of internet users is continuously growing. Technological advancements clearly make life simpler by providing a wide range of comforts and conveniences in everyday life. It encourages people to search and utilize the internet in a variety of circumstances, such as classroom, workplace, home, commuting, gaming, and so on. It also offers a variety of options such as travel and navigation, entertainment, media, shopping, completing assignments, blogging, gaming, and relationships. The increasing use of the internet impacts various aspects of individual's life. Individuals are becoming addicted to the internet because they engage in excessive online activities on a regular basis. Internet usage may be considered as a form of substance abuse because of the detrimental consequences it has on individual's life. Therefore, internet addiction should be studied with other variables of psychological nature like self-esteem, personality styles, and quality of life.

Internet Addiction
Researches, in recent times, in the field of technological addictions, such as addiction of smartphones, internet and social networking sites have significantly increased. Internet addiction is the most vital form of addiction among all three, because other two are subordinately associated with the uncontrolled use of the internet. Internet addiction, which has also been categorised as excessive internet use, internet addiction or pathological internet use that creates issues at work and in the social life. As per Young (2004) [33], Internet addiction can be taken as the inability to discontinue excessive internet usage, the propensity to see offline as worthless, unnecessary irritation and aggressiveness during deprivation. Uncontrolled internet use creates problems in many aspects of life including family, education, career and other important areas of psycho-social life (Beard *et al*. 2001) [7]. Several reports and research findings show that many of the internet users show addiction to the internet similar to the addiction to substance abuse and alcohol that causes academic disappointments (Brady, 1996) [8], as well poor work performance and loss in productivity (Robert Half International, 1996) [24].

Though, there are no universally accepted standard definitions of internet addiction, researchers have agreed consensually that it is a phenomenon which exists in reality. Internet addiction is characterized by excessive online activity for an extended period of time, which causes severe problems in people of all ages and genders. "A pattern of internet use that can produce malfunction and unlikable internal responses during a duration of two months" is how internet addiction is described by the American Psychiatric Association (APA). Internet being extensively used across the world, has evolved as a new tool that has become an indispensable part of day to day life with increased use particularly among young people (Nalwa & Anand, 2003) [23]. Despite the tool's widely acknowledged benefits, concerns of negative impacts of internet usage, particularly excess use and misuse, which can lead to a variety of medical and psychological health issues, are being focused by the Psychologists, counsellors and coaches (Greenfield, 1999) [12]. The various studies conducted on Internet addiction reveals that the characteristic features of internet addiction usually involve depression, hostility, substance experience, anxiety, craving, psychomotor agitation, preoccupation, reduced decision-making ability, functional impairment, withdrawal, loss of control (Ko *et al*., 2005) [18], consistent net surfing regardless of negative influences on well-being (Tao *et al*. 2010) [29].

Self-esteem
The self-esteem plays a vital role in the individual's achievement, which may aid in their educational and professional endeavors. It can be altered by many factors such as poor school environment, unsatisfactory life situations and unsatisfied workplace. Self-esteem can be understood as "a form of self-acceptance, personal admiration, and subjective regard of one's own" (Morganett, 2005) [22]. In more simplified form, self-esteem can be understood as an evaluation of the gap between the real and ideal self. Self- esteem has been defined as "an individual's negative and positive attitude toward oneself" (Rosenberg, 1965) [25].

Self-esteem may be characterized as a concept which is associated with self that arises through a process of appraising one's own worthiness. Brown, Dutton, and Cook (2001) [9] tried to explain self-esteem considering three different aspects that is global self-esteem; self-evaluation; and feelings of self-esteem. Self-esteem was shown to be positively and significantly linked to passion for life, psychological health, life satisfaction, happiness, optimism and hope (Abdel-Khalek & Snyder, 2007) [1]. People high on self-esteem are better prepared to persist while facing challenging tasks in comparison to the people low on self-esteem (Baumeister *et al*., 2003) [6].

However, person low on self-esteem have more chance of suffering from emotional immaturity, inferiority feeling, and triviality, which lead them toward dissatisfaction with life (Ha *et al*., 2007) [14]. Furthermore, Mackinnon (2015) [20] has observed that persons with poor self-esteem show a proclivity for having a general negative attitude about a variety of things, including other people and personal situations. Aydin and Sari (2011) [5] has found that self-esteem shows negative relationship with internet addiction. A study conducted by Andreassen, Pallesen, and Griffiths (2016) [2] on Norwegian sample revealed that people use social networking sites addictively to feed their ego and as

an attempt to inhibit their negative self-evaluations. Andreassen *et al*. (2016) [2] demonstrate a negative role of self-esteem in social media addiction, which is consistent with findings of prior researches (Hong, Huang, Lin, & Chiu, 2014).

Present Study
Due to the high exposure to the digital technology, specifically to the internet and social media, it is affordable and accessible to the all sections of the society. For the present generations, the Internet has been a benefitting tool as a great store and source of knowledge, entertainment, and socialization. Aside from these benefits, there are some serious costs associated with Internet, such as, excessive internet usage leads to maladaptation and "internet addiction." Young generations are, eventually, viewed as the most prone to this addiction, which may have a significant and severe impact on their everyday functioning tasks. As a result, general well-being of many young people, i.e. quality of life, has been negatively affected by the internet addiction. Considering the impact, the present study attempted to understand the underlying impacts.

Objectives: The present study attempted to investigate the relationship between internet addiction, and self-esteem. An attempt was also made to inquire the gender differences on these variables.

Method
Sample
The sample consisted of 100 participants, 50 of them were males and the remaining 50 were female participants. The study's participants were college students, who were in their adolescence or early adulthood stage, ranging in age from 17 years (minimum) to 25 years (maximum). To select the statistical sample of the study, Purposive sampling technique was used. The participants were belonging to diverse geographical parts of the country, although majority of the female participants were from Delhi and the surrounding areas.

Design
The present study used quantitative method and adopted correlational research design to find out the association between internet addiction, and self-esteem among college going students. This study adopted between group designs to investigate the gender difference with reference to internet addiction, and self-esteem among college going students.

Measures
The standardized instruments: Internet Addiction Test, and Rosenberg Self Esteem Scale, were used to measure different variables of the study, in accordance with the objectives of this research.

Internet Addiction Test
Young (1996) [31] developed the Internet Addiction Test comprising of 20 items. Salience, anticipation, loss of control, neglect work, excessive use, and neglect social life are the six dimensions of internet addiction are measured by the test. Participants are asked to response the statements on 5-point Likert rating scale based on their own experiences and agreements with the statements. The minimum and

maximum scores on the test are 20 and 100 respectively. Based on their total score, this test categorizes internet users into three groups. Mild users are those who score between 20 and 39; moderate users are those who score between 40 and 70; and severe users are those who score between 70 and 100. For factors, the IAT's reliability and validity were estimated to be in the range of 0.54 to 0.82.

Rosenberg Self Esteem Scale
This scale was developed by Morris Rosenberg in 1965 [25]. It is a tool comprised of 10 items, widely used in social science researches. These items are rated on 4-point Likert scale (ranging from strongly agree to strongly disagree). On this scale, scores range from a minimum score of 0 to the maximum score of 30. The score of less than 15 indicates low self-esteem. RSES is a valid and reliable (internal consistency reliability of 0.77 and test-retest reliability of 0.85) too for measuring the self-esteem.

Data Analysis
The t-test (Independent sample) was employed to investigate if there were any gender differences with reference to internet addiction, and self-esteem. Whereas, the association between internet addiction and self-esteem, was analyzed through Pearson product moment correlation method.

Results
This research study was carried out, keeping the objectives of the study in mind, on a sample size of 100 participants, comprised of 50 male students and 50 female students. The age range of the sample of this study was 17 years (minimum) and 25 years (maximum), which clearly signifies that the participants were either adolescents or young adults. Quantitative analysis was carried out by using the SPSS.

Table 1: Gender wise representation of Mean Score and Standard Deviation (SD) on measures of internet addiction and sef-esteem.

Variable	Gender	N	Mean	S.D.
Internet Addiction	Male	50	42.38	18.57
	Female	50	34.7	12.94
Self-esteem	Male	50	26.32	5.97
	Female	50	25.58	5.55

Table 1 is showing descriptive statistics of male and female participants separately, it can be observed that on the Internet addiction scale, both males and females were having mild level of internet addiction as the mean and SD score of male participants were 42.38 and 18.57 respectively, while female participants' Mean score and SD were 34.7 and 12.94 respectively. Observing the SD scores reflect that scores of females were less dispersed than the male scores on Internet Addiction Scale.
Table 1 also indicates that on the measure of self-esteem, males had the Mean and SD of 26.32 and 5.97 respectively, while females had a mean and SD of 25.58 and 5.55 respectively, which reflect high self-esteem among both the genders. The comparison of mean scores and SDs of both the groups suggests that level of self-esteem and dispersal of scores both are slightly higher in male participants in comparison to females.

Table 2: t-value and its significance on the measure of internet addiction with respect to gender

Variable	Gender (N=100)	Mean	S. D.	df	t-ratio
Internet addiction	Male (n=50)	42.38	18.58	98	2.40*
	Female (n=50)	34.70	12.94		

*p <.05

In comparison to the female participants, males scored higher on internet addiction, as shown in table 2. Further, with respect to internet addiction, the males were found to be significantly different from their female counterpart.

Table 3: t-value and its significance on the measure of Self-esteem with respect to gender

Variable	Gender (N=100)	Mean	S.D.	df	t-value
Self-esteem	Male (n=50)	26.32	5.97	98	.64
	Female (n=50)	25.58	5.55		

In comparison to the female participants, males scored slightly higher on internet addiction, as shown in table 2. But, the difference between both the means were not too high to be found significant.

Table 4: Correlation coefficients values between Internet addiction and self-esteem. (N=100)

Variable	Internet addiction	Self- esteem
Internet addiction	1	-0.24
Self- esteem	-0.24	1

Table 4 indicates negative association of internet addiction with self-esteem.

Table 5: Inter-correlation values between the variables for females (N=50)

Variable	Internet addiction	Self-esteem
Internet addiction	1	-0.11
Self-esteem	-0.11	1

Table 5 clearly demonstrates that internet addiction among the females, was found negatively correlated with the self-esteem.

Table 6: Inter-correlation values among the variables for males (N=50)

Variable	Internet addiction	Self-esteem
Internet addiction	1	-0.36
Self-esteem	- 0.36	1

It can be clearly observed from the table 6 that internet addiction among the males, was found negatively correlated with the self-esteem.

Discussion
The present study was conducted to explore the relationship of internet addiction with self-esteem. The study began with two main objectives: first was to determine the gender differences on measures of the two different variables; and second was to investigate the association of internet addiction with self-esteem. All the variables were measured through standardized scales.

From the analysis of the quantitative data through numerous statistics, it is evident that majority of the participants were classified under the Internet addiction category of 'mild users'. However, if the usage of internet is not in control, there is high probability that the mild users may develop internet addiction. Many previous studies have reported that internet usage from mild to excessive level lead to academic failure (Anderson, 1999; Morahan-Martin, 2000) [21], social isolation and depression (Kraut *et al*., 1998) [19], marital strife and relationship issues (Cooper *et al*., 2000) [10] and job loss, reduced productivity and work-performance (Young *et al*, 2000) [20].

Findings of the present study have revealed a significant difference on gender basis in internet addiction scores. As per findings of the majority of researches on internet addiction, both males and females showed addiction to the internet, although the degree of addiction differs. The present study also found that the males use internet activities more than their female counterpart. This can be attributed to the development of addictive tendencies of internet in males. This conclusion is supported by Tan, Abdullah, and Saw (2009)'s [28] research finding, which investigated that in Malaysia, boys spent more time in online activities than girls. In another research, done by Aslanbay *et al*. (2009) [4], it was shown that one percent of women and nine percent of males were classified as addicts. Greenberg *et al*. (1999) [11], in a study of individual substance and activities, found an interesting pattern of gender disparities in addictive tendencies. Men showed higher rates of addiction to alcohol, cigarettes, internet use, gambling and video games. Females, on the other hand, indicated a high level of dependence and addition of chocolate and caffeine. In Japan, it was discovered that males were more addicted to the internet in comparison to their female counterpart (Sato, 2006) [26].

The results indicate that internet addiction was negatively correlated with self-esteem. Hence, it can be concluded that uncontrolled usage of internet may lead to the feelings of low self-esteem, negative feelings and depression. Self-esteem was discovered to be a strong predictor of internet addiction (Armstrong *et al*., 2000) [3]. A number of researchers have found a link between self-esteem and Internet addiction (Kim & Davis, 2009; Yen *et al*., 2007) [17, 30]. Griffiths (2000) [13] revealed that excessive use of internet is closely linked to users' perceptions of the Internet as a means of coping with their shortcomings and enables people to feel better. Anxiety and depression are common symptoms of internet addiction (Young, 1998) [32]. Another prominent symptom among internet addicts is poor self-esteem, which is substantiated by the studies which revealed that self-esteem was correlated with Internet use (Jackson *et al*., 2010) and uncontrolled use of the Internet (Kim & Davis, 2009) [17]. These researches revealed a tendency in which adolescents with poor self-esteem invested more time on social networking sites than those with high self-esteem (Steinfield, Ellison, & Lampe, 2008) [27].

Conclusion
The present study explored the relationship of internet addiction with self-esteem and gender difference on these variables. Vast literature review in the form of theoretical approaches and past research findings related to the variables of the study shaped the objectives of the study.

The findings of the study revealed that internet addiction is negatively associated with self-esteem.

References
1. Abdel-Khalek AM, Snyder CR. Correlates and predictors of an Arabic translation of the Snyder Hope Scale. The Journal of Positive Psychology. 2007;2:228-235.
2. Andreassen CS, Pallesen S, Griffiths MD. The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey. Addictive Behavior, 2016.
3. Armstrong L, Phillips JG, Saling LL. Potential Determinants of Heavier Internet usage. International Journal of Human- Computer Studies. 2000;53:537-550.
4. Aslanbay Y, Aslanbay M, Cobanoglu E. Internet addiction among Turkish young consumers. Emerald Group Publishing Ltd. 2009;10:60-70.
5. Aydin B, Sari SV. Internet addiction among adolescents: the role of self-esteem. Procedia Social & Behavioral Sciences. 2011;15:3500-3505.
6. Baumeister RR, Campbell JD, Krueger JI, Vohs KE. Does high self- esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? Psychological Science in the Public Interest. 2003;4:1-44.
7. Beard KW, Wolf EM. Modification in the proposed diagnostic criteria for internet addiction. Journal of Cyber Psychological Behavior. 2001;4(3):377-383.
8. Brady K. Dropouts rise a net result of computers. The Buffalo Evening News, 1996, 1
9. Brown JD, Dutton KA, Cook KE. From the top down: Self-esteem and self- evaluation. Cognition and Emotion. 2001;15:615-631.
10. Cooper A, Delmonico DL, Burg R. Cybersex users, abusers, and compulsives: New findings and implications. Sexual Addiction & Compulsivity. 2000;6(2):79-104.
11. Greenberg JL, Lewis SE, Dodd DK. Overlapping Addictions and Self-esteem among College Men and Women. Addict Behav. 1999;24(4):565-571.
12. Greenfield DN. Psychological characteristics of compulsive Internet use: A preliminary analysis. Cyber Psychology & Behavior. 1999;2:403-412.
13. Griffiths MD. Does Internet and Computer "Addiction" Exist? Some Case Study Evidence. Cyberpsychology & behavior: the impact of the Internet, multimedia and virtual reality on behavior and society. 2000;3(2):211-218.
14. Ha, *et al*. Depression and Internet addiction in adolescents. Journal of Psychopathology. 2007;40:424-30.
15. Hong FY, Huang DH, Lin HY, Chiu SL. Analysis of the psychological traits, Facebook usage, and Facebook addiction model of Taiwanese university students, Telematics and Informatics. 2014;31(4):597-606.
16. Kim HH, Davis KE. Toward a comprehensive theory of problematic Internet use: Evaluating the role of self-esteem, anxiety, flow, and the self-rated importance of Internet activities. Computers in Human Behavior. 2009;25:490-500.
17. Ko CH, Yen JY, Chen CC, Chen SH, Yen CF. Proposed diagnostic criteria of Internet addiction for

adolescents. Journal of Nervous and Mental Disease. 2005;193(11):728-33.

18. Kraut R, Lundmark V, Patterson M, Kiesler S, Mukopadhyahy T, Sherlis, W. Internet paradox: A social technology that reduces social involvement and psychological well-being? American Psychologist. 1998;53:1017-1031.

19. Mackinnon NJ. Self-esteem and beyond. New York: Palgrave Macmillan, 2015.

20. Morahan-Martin J, Schumacher P. Incidence and correlates of pathological Internet use among college students. Computers in Human Behavior. 2000;16:13-29.

21. Morganett SR. Yaşam Becerileri. [Life skills]. (Translate: Sonay Gurçay, Alim Kaya, and Mesut Sackes), Ankara: Pegem Publishing, 2005.

22. Nalwa K, Anand AP. Internet addiction in students: a cause of concern. Journal of Cyberpsychological Behavior. 2003;6(6):653-670.

23. Robert Half International, Inc. Misuse of the Internet may hamper productivity. Report from an internal study conducted by a private marketing research group, 1996.

24. Rosenberg M. Society and the adolescent self- image. Princeton, NJ: Princeton University Press, 1965.

25. Sato T. Internet Addiction Among Students: Prevalence and Psychological problems in Japan. Japan Medical Association Journal. 2006;49(7):279-283.

26. Steinfield C, Ellison N, Lampe C. Social capital, self-esteem, and use of online social network sites: A longitudinal analysis. Journal of Applied Developmental Psychology. 2008;29:434-445.

27. Tan KE, Abdullah MNLY, Saw KG. Urban Malaysian adolescents' online activities. 7th International conference on new direction in the humanities, 2009, 2-5.

28. Tao R, Ying L, Yue XD, Hao X. Internet addiction: Exploration and intervention. [In Chinese]. Shanghai, China: Shanghai People's Press, 2010, 12.

29. Yen, *et al*. The Comorbid Psychiatric Symptoms of Internet Addiction: Attention Deficit and Hyperactivity Disorder (ADHD), Depression, Social Phobia, and Hostility. Journal of Adolescence Health. 2007;41:93-8.

30. Young KS. Internet Addiction: The Emergence of a New Clinical Disorder. Cyber Psychology and Behavior. 1996;1(3):237-244.

31. Young KS. Caught in the Net: How to recognize the signs of Internet addiction and a winning strategy for recovery. New York: John Wiley & Sons, 1998.

32. Young KS. Internet addiction: a new clinical phenomenon and its consequences. Am Behav Sci. 2004;48:402-415

33. Young KS, Griffin-Shelley E, Cooper A, O'Mara J, Buchanan J. Online infidelity: A new dimension in couple relationships with implications for evaluation and treatment. Sexual Addiction & Compulsivity. 2000;7(1-2):59-74.