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Internet addiction and achievement motivation among adolescents: A quantitative study

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Abstract

Nowadays, Internet addiction is being documented as a mental health problem. The adverse effects of Internet addiction are not comparable to the traditional forms of addiction. Because its services are so readily available, the issue has become worse over the past decade. The future, though, might see a severe issue with Internet addiction. This calls for an urgent discussion of the problem. Adolescents are also the age group that is identified to be the most vulnerable owing to several causes. The objective of this study was to assess the achievement motivation of adolescent boys and girls as a function of Internet addiction. The Internet Addiction Test (IAT) by Young (1996) and the Achievement Motivation Test by D. Gopal Rao were employed, respectively, for the study's objectives. The Internet Addiction Test (IAT) was administered to 200 adolescents (N=200) from different higher secondary schools and +2 colleges in the Odisha districts of Khurda and Cuttack for a quasi-experimental research study. The top 50 and the lowest 50 adolescents made up the high and low Internet addiction categories, respectively, based on the scores on this measure. In a quasi-experimental study, the achievement motivation was examined between 50 adolescents with high Internet addiction and another group of 50 adolescents with low Internet addiction. The Rao's Achievement Motivation Test was given to both groups. To compare the achievement motivation scores between the two groups, an independent samples t-test was used. Findings showed a significant difference between the high and low Internet addiction groups favoring the latter group in relation to achievement motivation..

Keywords: Internet, addiction, achievement motivation, adolescents

1. Introduction

The Internet is a tremendous source of knowledge and an undoubted chance to improve one's social and economic situation, educate oneself, and overcome shyness and crippling apprehensions. It has improved the happiness and quality of life of people. The first studies on Internet addiction were conducted in 1996, and the results were presented at the American Psychological Association. The study examined more than 600 cases of frequent Internet users who displayed clinical symptoms as determined by the modified DSM-IV criteria ^[39]. Compulsive-impulsive spectrum disorder is the diagnosis, and it involves using computers online or offline ^[7]. There are three subcategories, including sexual obsessions, binge gaming, and emailing or texting ^[3]. The Diagnostic and Statistical Manual of Mental Disorders, fifth edition, now includes the diagnosis "Internet Gaming Disorder" (IGD). The diagnostic usefulness of the nine criteria, however, has not received enough attention. The distinction between appropriate and inappropriate Internet use is blurring in society, with a focus on social identity ^[32]. Adolescents and young adults who push the boundaries clearly demonstrate this ^[23] and so, it appears necessary to avoid unrestrained and unhealthy Internet usage among young people, which is a difficult task ^[10].

According to research by ^[15], the incidence rate across 50 studies in 19 Indian states was 19.9%. Studies indicate that those who struggle socially and psychologically may be lured to online social connections. Additionally, studies have shown a link between problematic Internet usage and interpersonal issues such as social anxiety, loneliness, limited social skills, and introversion. In a survey of 572 college students, ^[17] assessed the students' Internet use, study practices, and academic achievement.

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Their study's findings showed that students who were Internet-dependent utilized synchronous chat programmes far more frequently than students who were not Internet dependent.

Because of prior disorders and negative thoughts that support compulsive usage that emerge during adolescence, adolescents are at a high risk for developing Internet addiction^[1, 38]. Also crucial are social support, a lack of communication skills, and convenient Internet access^[16, 36]. The main reasons why most individuals use the Internet nowadays are to express their feelings, learn new skills, and make new acquaintances.

Internet addiction appears to have a detrimental impact on academic achievement, according to the literature that currently exists on the relationship between excessive Internet usage and academic motivation or performance^[14]. Missing classes, a drop in grades, a progressive deterioration of study habits, and a loss of drive to study are some of the behaviors linked with excessive Internet use^[13, 27].

McClelland defined achievement motivation as the drive to succeed^[19]. He believed that feelings of success are related to measured success. It is associated to aspiration, the urge to perform individually, face and resolve difficulties, and a desire for activities with moderate risk levels rather than those with low or high-risk levels.

According to research, this urge to accomplish is a compensating motive resulting from early childhood traumas from Adlerian viewpoint^[18]. Murray described it as an individual's willingness to achieve things that others consider challenging, regulate their social and physical surroundings, control and develop ideas, be self-reliant, overcome challenges, achieve measures of excellence, compete with other individuals, and be better compared to them, and be energetic and able to accomplish success^[20]. Existing research also shows that people with strong achievement motivation have higher success rates in life and work more actively with others^[28]. Such people fared better in comparison to those with low achievement motivation who were of a similar intellectual level. The group with the highest levels of motivation scored higher on math, problem-solving, and pronunciation tests. In their subsequent university-level classes, they also performed better academically. Most often, it is seen that people who are highly motivated to succeed take chances as soon as they get it, as opposed to others who are less motivated to achieve and simply accept life as it comes^[28].

The connection between Internet addiction and achievement motivation has also been shown in several research investigations. Internet addiction has been shown to have a detrimental impact on teenagers' drive for achievement^[8]. Furthermore,^[26] found that problematic Internet use was negatively correlated with many aspects of academic motivation, including intrinsic goal orientation, control over learning, and learning self-efficacy. This study also examined the relationship between high levels of Internet use or problematic Internet use and achievement motivation in adolescents.

Adolescents with Internet addiction have low academic performance^[37]. Ganji *et al.*, conducted a study on academic engagement and Internet addiction, and the results revealed a strong, negative association between the two in terms of numerous emotional, behavioral, and cognitive domains^[12]. Additionally, a 2015 study by Singh & Barmola revealed that Internet addiction had a major impact on students'

academic performance and mental health. In contrast to those who had moderate degrees of Internet addiction, the students with severe levels of Internet addiction showed negative consequences on their academic performance and mental health.

In their investigation of the prevalence of Internet addiction among Nigerian students,^[22] employed the IAT. Boys were found to be more addicted to the Internet than girls, according to the authors. These results concur with those from studies of Chinese and Turkish students who both focused on students^[30, 4]. In a related Chilean research study,^[2] established that Internet addiction can relate to both male gender and depressive symptoms in students by using Young's diagnostic instrument, the IAT. Gender is another important element in Internet addiction, according to^[24]. Their findings again indicate that boys are more likely to develop Internet addiction than girls. In this context,^[33] analyzed seven European nations (Greece, Spain, Poland, Germany, Romania, the Netherlands, and Iceland) and discovered that the incidence of dysfunctional Internet behaviour was significantly greater among males than among girls. Additionally,^[9] found that male gender strongly predicts problematic Internet usage in a sample of nations including Austria, Estonia, France, Germany, Hungary, Ireland, Israel, Italy, Romania, Slovenia, Spain, and Sweden. The prevalence of Internet addiction differs by gender and is higher in boys, according to several international research studies^[6, 29].

Many researchers emphasize the pressing need to prevent Internet addiction among various types of people, particularly the youth; thus, research on this topic can aid in the implementation of effective interventions not just through government and public policies, but also by examining the approach of children's educators and parents who mold the environment in which the person develops^[35].

2. Method

2.1 Sample

The sample included 200 adolescents (N=200) between the ages of 14 and 16, from various higher secondary schools and +2 institutions in the Odisha districts of Khurda and Cuttack. The Internet Addiction Test (IAT) was given to them. The top 50 and lowest 50 adolescents were chosen based on their results on this scale. The former students were in the high Internet addiction group, whereas the latter were in the low Internet addiction group. Both boys and girls were among the participants who took part. All students were from a middle-class family, with monthly earnings ranging from 20,000 to 60,000 rupees. Table 1 contains a description of the sample characteristics.

Table 1: Description of the Sample Characteristics

Group	N	Age group	Gender	Mean Internet addiction score
High Internet addiction	50	14-16 years	Boys=39 Girls=11	48.57
Low Internet addiction	50	14-16 years	Boys=11 Girls=39	29.92

2.2 Measures

2.2.1 The Internet Addiction Test (IAT). Young developed the Internet Addiction Test (IAT)^[39]. It is a consistent indicator of excessive Internet usage. It assesses the client's involvement with the Internet and categorizes

such behavior as "mild, moderate, and severe impairment." It has 20 sentences with six response options: "does not apply" (0), "rarely" (1), "occasionally" (2), "frequently" (3), "often" (4), and "always" (5). Total scores are calculated by summing all the answers. The greater the range of scores, the greater the level of addiction. If the score falls between 20 and 49 points, it shows that the individual is an average Internet user. A score of 50-79 suggests that excessive Internet usage is causing some difficulties, while a score of 80-100 indicates that excessive Internet use is causing serious issues. The test's test-retest reliability is 0.82, and its content validity is 0.88.

2.2.2 Rao's Achievement Motivation Test. Dr. D. Gopal Rao developed this test [25]. It has 20 incomplete statements, and the participant is meant to finish each of the statements by selecting one of two options or alternatives. This assessment provides an objective estimate of adolescents' achievement motivation. Although both are accomplishment driven and socially acceptable, one is referred to as high achievement related (HAR) and the other as general achievement related (GAR). The GAR responses receive a score of one, whereas the HAR responses receive a score of three. The test has a minimum score of 20 and a maximum score of 60.

2.3 Procedure

The Internet Addiction Test (IAT) was administered after acquiring consent from the relevant school and college officials. Before conducting the test, rapport with the students was established. The scores of 200 students for Internet addiction were computed and graded from highest to lowest. This scale's top and bottom 50 scorers represented the high and low Internet addiction categories, respectively. D. Gopal Rao designed the Achievement Motivation scale, which was administered to both groups. The scale's responses were graded in accordance with the manual. The results of the scores were then statistically examined. The appropriate guidelines for the measures were properly conveyed and made sure to be comprehended by all participants. The participants were given instructions to reply to every question on the questionnaire honestly and without hesitation. The study was carried out in accordance with ethical standards, and strict confidentiality was ensured. Both tests were given in group during a free period of the school or college hour.

3. Results

The Achievement Motivation Test results of the high and low Internet addiction groups were compared using an independent sample t test, keeping the study's goal in mind. Table 2 presents the group wise means, Standard Deviations of the high and low Internet addiction groups and t values.

Table 2: Mean, Standard deviations, and T Value of the low and high internet addiction groups (N=50 in each group) for achievement motivation

Group	N	Mean	SD	T	Significance
High Internet addiction group	50	44.66	1.42	6.68	0.00
Low Internet addiction group	50	46.36	1.10		

Table 2 shows that the mean and standard deviation for the high Internet addiction group were 44.66 and 1.42, respectively, and 46.36 and 1.10, respectively, for the low

Internet addiction group. The t-value was found to be 6.68 having a significance value of 0.00. Thus, both the low and high Internet addiction groups were significantly different from each other. Bearing in mind the mean values, it can be said that students who had low Internet addiction had high achievement motivation in comparison to those who had high Internet addiction.

4. Discussion and Conclusion

Globalization, technical advancement, and the creation of innovations are the primary causes of Internet addiction in the current world. Young people are especially in danger as a result of this phenomena and its repercussions [10]. The constraints of information and communication technologies are not anticipated to alter much in the future; on the opposite, their use is anticipated to increase. Similar worries may exist over rise in behavioral problems linked to Internet addiction. In this setting, it is important to remember the dangers to physical health [11, 21] and mental health [5, 34]. Internet addiction should thus be routinely tracked in high-risk population groups. Addiction, which might become a significant issue in the future, can be predicted by a teen's lifestyle. Therefore, this population group is the focus of the current research.

According to Table 2, which compares adolescents' levels of Internet addiction and achievement motivation, those with high Internet addiction had a mean score of 44.66 and SD of 1.42, while those with low Internet addiction had a mean score of 46.36 and a SD of 1.10. Compared to adolescents with high Internet addiction, those with low Internet addiction reported higher levels of achievement motivation. Adolescents with high achievement motivation strive to outperform their peers in both academic and extracurricular activities, as well as in the classroom. They engage in less online activities, such as using different social media platforms. But when it comes to how much time students spend on social media, Internet addiction is a problem. Extreme Internet usage may lower students' success and their motivation in learning since it interferes with the time they need to study and prepare for academic assignments. Due to the ease with which everyone may use the Internet, people who have more free time than usual tend to develop habits of Internet addiction.

Another interesting finding is that, as Table 1 demonstrates, boys significantly outnumbered girls in the high Internet addiction group, but the reverse was true for the group with low Internet addiction. ($\chi^2 = 31.36, p < 0.05$). According to this, boys are more likely than girls to be highly Internet addicted. These findings are in line with some of the prior studies carried out by [4, 6, 22, 24, 29, 30].

Adolescents receive very little information on non-substance addictions, particularly Internet addiction. When emphasis is placed on the potential danger of Internet addiction, this lack of knowledge might be seen extremely adversely. In certain circumstances, addicts are aware of their issue but lack the courage to address it in person. The Internet may be helpful in this situation as well because it provides a lot of room for information that should focus on aiding and supporting Internet addicts. It is crucial to provide this kind of material since addicts are most likely to use it. Young people today are exposed to the Internet more than ever before due to the changing times.

Adolescents need to be taught how to use the Internet responsibly. It is necessary to inform them of the prevalence

and negative consequences of problematic Internet use. The study will assist researchers, educators, and authorities in starting activities to prevent Internet addiction. These initiatives may include programmes designed to inform parents and students about potential behavioral addiction symptoms and identify teenagers who may be at risk. The research will be useful in developing intervention programmes for government agencies, non-governmental groups, and professionals who care about the welfare of children. Additionally, there should be extensive online promotion of helplines, nonprofit organizations, and experts who can offer advice on how to address this problem in the lives of people of course, the state needs to provide adequate funding for these nonprofit groups, preventative efforts, and educational initiatives. At the same time, efforts to combat Internet addiction should be more oriented towards boys. Future studies will concentrate on demonstrating disparities in other socioeconomic traits. In addition to adolescents, other demographic groups will also be studied to better understand this issue.

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6. Conflict of Interest

The author declared no conflict of interest.

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