

## Internet Addiction in School Going Adolescents and Its relationship with Loneliness

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### ABSTRACT

**Background:** The use of internet has now become indispensable. School students especially adolescents are a group particularly vulnerable to internet addiction as they spend a major proportion of their time in accessing the internet for both academic and extracurricular purposes. Moreover, given that Internet addiction is associated with various disorders, which leads to poor academic performance and isolation both in school and at home, it seems essential to investigate the relationship of Internet addiction with Loneliness carefully in students. Loneliness as a psychological condition occurs due to qualitative and quantitative lack of social interactions. A person feels lonely when he/she doesn't get enough intimacy or excitement in his relationships in any age.

**Methods:** Using the internet addiction test (IAT) by Dr. Kimberly Young is based on Internet Addiction Diagnostic Questionnaire (IADQ) and is composed of 20 items and the UCLA loneliness scale by Russell, D., (1996) is a 20-item scale designed to measure one's subjective feelings of loneliness as well as feelings of social isolation was applied on a sample of 150 adolescent boys and girls between the age group of 14 – 17 years was taken from four (4) schools from Kashmir valley's Srinagar district. Using convenient sampling technique, the students were taken from 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> grades.

**Results:** Approximately 36.6% of adolescent were suffering from mild internet addiction, 39.3% were suffering from moderate addiction and 2.6% of adolescent suffer severe addiction. Both adolescent boys and girls did not show any significant difference on internet addiction ( $t = -0.899$ ) and Loneliness ( $t = -3.731$ ). The result also showed significant positive correlation between internet addiction and loneliness ( $r = 0.357$ ,  $p < 0.01$ ).

**Conclusion:** The study showed that approximately 80% of the students have internet addiction. It also revealed that internet addiction increases loneliness and vice versa. The incidence of internet addiction might increase in coming years as internet is getting cheaper day by day. The study also unfolds that adolescents, males and females do not differ on internet addiction and loneliness. This study unfolds that internet addiction in the majority of the adolescent is a dark reality that requires timely remedial action.

**Keywords:** Internet, Addiction, Loneliness, Excessive, Adolescents, Mental Disorder

### INTRODUCTION

The uprisings in computer technologies and communication primarily through the internet play a critical role in almost every society and have pretentious people of all ages. In the current developments, both internet and computer technologies are considered as the most useful instrument and has been dominant in all spheres of life rfan ing science, business, education, culture, politics, etc. [1]. One of the chief troubles that the Internet has formed is "virtual addiction" or addiction to the global "World Wide Web", which has both psychological and behavioral harmful effects on the user of internet [2]. Internet addiction has been considered as a mental disorder in psychopathology and

medical science and this disorder is a form of an addiction which has attracted the attention of scientists and researchers from various fields including psychology-sociology, psychiatry, sociology and other disciplines [3,4].

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Internet addiction belongs to the category of addictions known as behavioral addictions. The international prevalence of internet addiction is 1.5% to 8.2% worldwide [5]. The statistical report of Iran shows that the number of Internet users has grown up to 25 times over the years [6]. There are several studies who indicated that the incidence and prevalence of Internet addiction among students has increased [7]. In Greece, Internet addiction was 11% in age group between 14-18 years; in South Korea, it was 7-10% [8]; in Finland, it was 7.4% in females and 6.4% in males [9]; in China, it was 9 to 11% [10]; and in Italy, 4.5% of students were addicted to the Internet [11]. Another study regarding the prevalence rate of internet addiction among high school girls in Iran is estimated to be about 8.3% [12]. Internet addiction differs among different societies, cultures and different age populations. Among the different age groups, most common group that are at higher risk for Internet addiction or more vulnerable is adolescents (teenage). Because of the needs of education, information, entertainment or other requirements, adolescents tend to use more internet. Since they have more free time to use the Internet, they are more prone to the phenomenon of "Internet addiction" [13,14].

Loneliness is a wide-reaching problem that every human has experienced in his/her life at one time [15]. Loneliness is an uncomfortable experience of being different from others or being alone and this experience can cause a number of behavioral or emotional problems such as sadness, anger, depression and social withdrawal [16]. Perlman explains "loneliness as a psychological condition in which a person has qualitative and quantitative lack of social interactions. A person feels lonely or alone when he/she doesn't get sufficient closeness or stimulation in his/her relationships in any age" [17].

In addition, internet addiction is related with various psychological disorders, which often leads to academic under performance or underachievement and remoteness or loneliness both in educational institution primarily at school and at home, it seems important to explore the connection of internet addiction with loneliness cautiously in students particularly adolescent's population. Over the last ten years, research studies on internet addiction (IA) has increased greater than before. Most of them reported the association between severe internet use with some social and psychological variables such as social isolation, depression and loneliness [18], low self-esteem and complacency. One of the studies by Yen reported that Internet addiction was linked to a variety of psychological variables such as shame, loneliness, anxiety, depression, and deficits in interpersonal relationships [19]. More specifically in association to loneliness, it is generally thought that this variable plays an important role in the development and progress of Internet addiction, and thus warrants further need to study this relation between internet addiction and loneliness. In a meta-synthesis of qualitative studies on internet addiction from

1996 to 2006 [20], it was found that loneliness was one of the major antecedents of Internet addiction together with feelings of isolation, low self-confidence, and low self-esteem. In fact, some scientists and researchers have found loneliness to be one of the best predictors of Internet addiction [21]. However, it should also be pointed that scientific researches that study the relationship between variables of loneliness and Internet addiction are not many. Despite this inadequacy, past studies tend to reveal loneliness as a possible outcome of Internet addiction [22,23]. However, recent scientific studies have shed some light on the relationship between Internet addiction and loneliness [24,25], where most of them suggest and concluded strong links between these two variables. Use of internet has been employed to reduce psychological symptoms such as loneliness and depression. Loneliness is strongly been associated directly with deficits in social skills, social interaction, preference for system (network) interaction and irrational internet use [26]. Young and Rodgers in their study indicated that loneliness is related to decrease of social interactions in the real life due to extreme use of internet [27]. Anderson states that internet is also being used as an escape from real problems and feelings of boredom, helplessness, anxiety and depression. Especially the adolescents who have grown up with smart phones are much more prone to its side effects [28]. Study by Sanders on adolescents showed that depression and social withdrawal occurs, when adolescents use Internet in abundance, because the internet provides a World Wide Web network and a multiple online platform of communication [29]. People with the feeling of loneliness are attracted to interactive social activities facilitated by the Internet that gives them a sense of belonging, friendship, and communication. This view is consistent with the model proposed by Shapira, who suggested that lonely people spend more time online [29].

## NEED OF THE STUDY

There has not been a single study that explores internet addiction and loneliness on this population. It is important to understand here that Kashmir has been in political turmoil from more than 30 years now. Restrictions on the movement of people and ban on internet is common these days. The population is mostly confined within home and feeling of loneliness might emerge. This study will explore the level of virtual or internet addiction among the teenagers of the particular population, who do not have any other ways of amusement in their life because of the ongoing shutdowns and curfews. The study will also explore the relationship internet addiction and loneliness.

## MATERIALS & METHODS

The aim of the study is to understand the levels of internet addiction and correlation between internet addiction and loneliness among adolescent boys and girls.

**PARTICIPANTS**

A sample of 150 adolescent boys and girls between the age group of 14-17 years was taken from four (4) schools from Kashmir valley’s Srinagar district. Using convenient sampling technique, the students were taken from 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> grades.

**MEASURES**

**Internet Addiction Diagnostic Questionnaire**

The internet addiction test (IAT) by Dr. Kimberly Young is based on Internet Addiction Diagnostic Questionnaire (IADQ) and is composed of 20 items. It was originally scored on five-point Likert scale ranged from “rarely” to “always” which was later modified to a 6-point scale with one response option being “does not apply”. Based upon the following six-point scale, the response that best represents the frequency of the behavior described in the 20 items was selected by the students. Levels of addiction were measured by following ways: 0-30=No addiction, 31-49=Mild level addiction, 50-79=Moderate addiction and 80-100=severe addiction [30].

**Loneliness Scale**

The UCLA loneliness scale by Russell, D. (1996) is a 20-item scale designed to measure one’s subjective feelings of loneliness as well as feelings of social isolation. Participants

rate each item as, O (“I often feel this way”), S (“I sometimes feel this way”), R (“I rarely feel this way”), and N (“I never feel this way”). The loneliness scale is highly reliable both in terms of internal consistency (coefficient ranging from .89 to .94) and test-retest reliability over a 1-year period (r = .73). Convergent validity for the scale was indicated by significant correlations with other measures of loneliness. Construct validity was supported by significant relations with measures of the adequacy of the individual’s interpersonal relationships, and by correlations between loneliness and measures of health and well-being.

**STATISTICAL ANALYSIS**

The data was analyzed by using statistical package for social science (SPSS) version 16.0. Pearson’s correlation was used to know the relationship between variables i.e. Internet addiction and Loneliness and T- test was used to know the significance of difference among adolescent on Internet addiction and Loneliness.

**RESULTS & DISCUSSION**

**Table 1** shows approximately 36.6% of the adolescents are suffering from mild internet addiction, 39.3% are suffering from moderate internet addiction and only 2.6% adolescents are suffering from internet addiction. At the same time 21.3% adolescents shows no internet addiction.

**Table 1.** Distribution of severity scale of Internet addiction in students (N=150).

Levels of Internet addiction	Percentage wise distribution in students
None	21.3%
Mild	36.6%
Moderate	39.3%
Severe	2.6%

**Table 2** shows gender wise distribution of severity of internet addiction. Adolescent boys show mild internet addiction (45.3%), while adolescent girls show (28%) mild internet addiction. Adolescent girls are more moderately

addicted to internet (40%) while adolescent boys (38.6%) and adolescent girls are severely addicted to internet (5.3%), while none of the adolescent boys are severely addicted to internet.

**Table 2.** Gender wise distribution of severity scale of Internet addiction (N=150).

Levels of Internet Addiction	Male students (N=75)		Female students (N=75)	
	Number	% of Adolescent Boys	Number	% of Adolescent Girls
None	12	16%	20	26.6%
Mild	34	45.3%	21	28%
Moderate	29	38.6%	30	40%
Severe	0	0%	4	5.3%

The t test was used to find the significance of difference between boys and girls on Internet addiction and Loneliness. **Table 3** shows no significance of difference between adolescent boys and adolescent girls on Internet addiction

( $t=-0.899$ ) and it also shows no significance of difference between adolescent boys and adolescent girls on Loneliness ( $t=-3.731$ ).

**Table 3.** Significance of difference between Internet Addiction and loneliness among adolescent boys and girls.

Variables	Gender	Mean	Std. Deviation	N	T Value	P Value
Internet Addiction	Boys	44.52	15.22	75	-.899	Insignificant at 0.05 level of significance
	Girl	47.14	20.20	75		
Loneliness	Boys	18.49	15.30	75	-3.731	Insignificant at 0.05 level of significance
	Girls	27.50	14.26	75		

\*\*Significant at  $p<0.01$

\*Significant at  $p<0.05$

Pearson’s correlation was used to find the relation between Internet addiction and loneliness. **Table 4** shows internet addiction was found to be significantly positively correlated

with loneliness at both level of significance ( $r=.357$ ,  $p<0.01$ ). It means the more an adolescent becomes addicted to internet, the feeling of loneliness increases or vice versa.

**Table 4.** Shows correlation between internet addiction and loneliness among adolescent boys and girls.

Variables		Internet Addiction	Loneliness	P- Value
Internet Addiction	Pearson Correlation	1	.357**	Significant at 0.01 level
Loneliness		.357**	1	
	N	150	150	

\*\*Correlation is Significant at 0.01

\*Correlation is Significant at 0.05

**DISCUSSION**

The present study investigated the problem of internet addiction among the adolescents of Kashmir valley. It was revealed that more than 80% of adolescents are addicted to internet. The finding is much greater than the prevalence of 56.6% as reported in south India [31]. It may be because most of the time in Kashmir there is strikes and curfew most of the people have to stay indoors and have nothing else to do but to spend maximum time on internet. The study revealed that 63% of the college students were mildly, 20% moderately and 6% were addicted to the internet [32], while in the present study 36.6% were mildly, 39.3% were moderately and 2.6% were severely addicted to interne, the difference may be because the present study is based on adolescents. The present research also tries to explore the significance of difference between adolescent boys and girls on internet addiction. The results showed that there is a gender wise distribution of severity scale of Internet

addiction. Boys (45.33%) were found to more mildly addict to internet as compared to girls (28%). Moderately the girls (40%) are more addicted to internet as compared to boys (38.6%), and severely the girls showed (5.33%) of internet addiction while boys showed none severely addiction. The results showed that overall adolescent boys and girl do not differ significantly on internet addiction ( $t = -0.899$ ). It was found out that problematic internet use do not show difference according to gender [34]. But the study conducted by [33] showed on university students of Kashmir that there is a difference between internet addiction and depression between males and females. Males were more addicted to internet and depression than females [33]. The availability of cell phones and internet is so common; it is really difficult to find the significance of difference between boys and girls. Moreover, internet has become the most important part of our life and particularly the life of adolescents. The social media has played a significant role in the development of

addiction in the life of adolescents. The internet has become the prime source of maintaining the old relations and developing new ones. The information and the knowledge available on the internet are immense, so it becomes hard for a person not to explore the vast ocean of internet. Thus, the development of internet addiction becomes common. There has been no research on internet addiction and loneliness in the particular population, thus makes it unique to understand how prevalent the internet addiction is and how it is closely correlated with loneliness.

The present research also tries to explore the significance of difference between adolescent boys and girls on Loneliness. The results revealed that there is no significant difference between adolescent boys and girls on loneliness. Both adolescent boys and girls have same feelings of loneliness. In India very little research has been done on psychological and physical effects of loneliness. There are just a few studies in India, in which relationship of loneliness with other psychiatric disorders has been studied. However, most of these studies were done in elderly patients only [35].

The present paper also tries to explore the correlation between internet addiction and loneliness among adolescent boys and girls. The results revealed that internet addiction and loneliness are significantly positively correlated with each other. Internet addiction was found to be correlated with depression and stress but in undergraduate students of Azad Kashmir [36]. Most of the adolescents who uses internet like to stay away from physical proximity, they only like to spend time alone on internet playing games or trying to develop online relations which is quite easier than developing face to face relations. Thus, excessive use of internet can become the reason of loneliness. In relation to the association between Internet addiction and loneliness, studies have consistently reported links between high levels of Internet addiction and loneliness [22].

## CONCLUSION

The present tries to explore the level of internet addiction among adolescent and its relationship with loneliness, the study showed that approximately 80% of the students have internet addiction. It also revealed that internet addiction increases loneliness and vice versa. The prevalence of internet addiction might increase in coming years as internet is getting cheaper day by day. The study also unfolds that adolescents' males and females do not differ internet addiction and loneliness. This study unfolds that internet addiction in the majority of the adolescent is a dark reality that requires timely remedial action. The study also explores the relationship between internet addiction and loneliness and found strong correlation between the variables. Detection of internet addiction therefore assumes greater importance in institutions such as schools. It needs to be emphasized that students will have to be educated in safe and healthy practices for internet use. Appropriate preventive and interventional strategies need to be developed

to encourage rational use of internet in order to protect the physical and mental health of the users. Comprehensive program for students should be carried out to increase awareness of the internet addiction. In order to make the life of adolescents simpler and comfortable across all regions of the world preventive and interventional strategies needs to be developed and making such programs part of their curriculum.

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