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## Relationship between anxiety and internet addiction among adolescent students from urban area

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### Abstract

The internet is one of the most widely used means of communication for connecting people all over the world in association with the rapid escalation of consumed internet content. The wider availability of smartphones and tablets with internet access is a new challenge which requires immediate solutions for providing a healthy future to every adolescent. High comorbidity of internet addiction with psychiatric disorders has been reported enormously. Particularly anxiety disorders are linked with Internet addiction which is the main concern of academicians as well as health professionals. Adolescence is very much important stage of human development. Illness or disorder in Puberty may last into adulthood, if not treated properly. The present study was to find out the relationship between Internet addiction and trait anxiety among adolescent male and female students, mainly from urban areas. Sample was selected mainly from urban area and Data was collected through the purposive sampling method. The total number of participants was finally 100 (50 males and 50 females), between the age of 13-19 years. Information Schedule and State Trait Anxiety Inventory (STAI) were given to every participant to collect Socio demographic data as well as trait anxiety of participant. Participants who had moderate to high trait anxiety were administered Internet Addiction Test to assess their addiction for Internet. The data were analysed and scores were calculated for STAI and IAT by following the scoring method. Then Mean, SD and Pearson's R had been done by using SPSS. It had been found from the analysis that correlation between internet addiction and trait anxiety among male and female exist.

**Keywords:** Internet addiction, anxiety, adolescents

### Introduction

Urbanization has resulted in the Internet being more accessible, affordable, and full with information that is addicting (Ko, *et al.*, 2022) <sup>[6]</sup>. Furthermore, with the increasing global proliferation of Internet use, the issue of Internet addiction has emerged as a significant public health concern affecting many populations (Hassan *et al.*, 2020) <sup>[5]</sup>. Internet addiction is classified as an impulse control illness characterized by the excessive use of the Internet, leading to the disregard of interpersonal connections, occupational responsibilities, and routine activities in one's everyday life (Young, 1998, 2004, 2007) <sup>[14]</sup>. The phenomenon of internet addiction has been observed to exhibit comorbidity with various psychological symptoms and psychiatric disorders (Otsuka *et al.*, 2020) <sup>[10]</sup>. Specifically, research has indicated a correlation between internet addiction and conditions such as depression (Lau *et al.*, 2018) <sup>[9]</sup>, anxiety symptoms (Cai *et al.*, 2021) <sup>[3]</sup>, insomnia (Goel *et al.*, 2021) <sup>[4]</sup>, academic underachievement, social withdrawal (Kato *et al.*, 2020) <sup>[7]</sup>, and aggressive behavior (Zhao *et al.*, 2022) <sup>[15]</sup>. According to another study, there is a reciprocal relationship between internet addiction and poor mental health state, wherein one factor increases the probability of the other's start. Presently, in some other study it was revealed that there exists a notable prevalence of online addiction among individuals enrolled in higher education institutions. The consequences of internet addiction are especially noteworthy for college students, given their ongoing psychosocial maturation. According to another study, it was shown that Internet addiction had a negative impact on the self-esteem, self-confidence, social self-efficacy, academic self-efficacy, and loneliness levels of college students. In contrast to other maladaptive issues, there exists a robust association between Internet addiction and anxiety as well as depression (Li *et al.*, 2019; Andrade *et al.*, 2020) <sup>[8, 1]</sup>.

Emotional difficulties, including depression and anxiety, have been identified as prevalent conditions. These conditions often co-occur at a high rate and have been found to influence various psychological and behavioral issues (Warren *et al.*, 2021) [2]. Additionally, in some other study it was found challenges in regulating emotions have been shown to be predictive of future Internet addiction. Emotional difficulties, including sadness and anxiety, are prevalent among college students, as shown in some other studies. Numerous prior research have shown the correlation between depression and anxiety and Internet addiction (Sayed *et al.*, 2022) [11]. According to the findings of a study there exists a correlation between the intensity of Internet addiction and the degrees of despair and anxiety. The prevalence of depression is seen to be higher among those who exhibit excessive Internet use and addiction. Furthermore, depressive symptoms have been identified as the most influential predictors of Internet addiction in some studies. Moreover, another study revealed that heightened levels of anxiety serve as a significant predictor for the development of Internet addiction. Additionally, there exists a reciprocal relationship between Internet addiction and increased anxiety. In a recent research, undertook a longitudinal investigation spanning three years, wherein they identified a reciprocal association between Internet addiction and depressed symptoms. The phenomenon of internet addiction exhibits variations based on gender, as seen in a study. According to another study, there is a higher susceptibility to Internet addiction among males compared to females. According, a study conducted by researchers has shown that males exhibit elevated levels of Internet addiction. This finding is attributed to the greater dependency, impulsivity, and interdependence seen among men. A subsequent survey conducted on a sample of 1,715 teenagers revealed that depressed symptoms had a stronger predictive influence on Internet addiction among male adolescents, suggesting a potential causal relationship between depression and Internet addiction.

### Objectives

- To Study the relationship between Internet addiction and Trait anxiety among male and female.
- To find out the difference between internet addiction and trait anxiety for both male and female.

### Methodology

The aim of the study was to find out the relationship between anxiety and internet addiction among adolescent students

### Site and Population

The sample consists of 100 adolescents 50 male and 50 female were selected through purposive sampling the age range was 13-19 years from Kolkata, West Bengal.

### Tools and Scales

#### 1. State-Trait Anxiety Inventory (STAI)

The STAI consists 22 of total 40 items each measured using a four-point Likert-type scale ranging from (1) almost always to (4) not at all. These items are used to assess how a participant generally feels & how a participant feels right

now. It is estimated that it takes ten minutes to complete. The internal consistency of the test was between 0.86-0.89.

### 2. Internet Addiction Test by Young

Internet Addiction Test was developed by Dr. Kimberly S. Young, 1998. It is a 20-item scale used to measure the severity of an internet addiction. The scale is measured by a 5-point Likert scale ranging from (0) not applicable to your life to (5) something that you always engage in. IAT showed strong internal consistency ( $\alpha=0.90$  to .93) and good test-retest reliability ( $r = 0.85$ )

### Results

The necessary calculations revealed that mean of trait anxiety in female were higher (47.5600) than male and state anxiety was higher in male (60.5600). Internet addiction was found to be higher in male (79.4000). Internet addiction had an effect on state anxiety.

### Discussion and conclusion

After the necessary calculations were done from the table 1 it was seen that in case of trait anxiety the female participants mean were higher (47.5600) than male participants (39.2400). From the table 2 it was found that in case of state anxiety the male participants scored higher (60.5600) than female (50.0200). From the Table 3 it was seen that male scored higher (79.0400) in Internet Addiction than female (70.0400) which was supported by the study of Wenliang Su, 2019 [12]. From table 4 it was found that the pearson's correlation for state anxiety and internet addiction is 0.255 which indicated a significant relationship. This was supported the findings by Francesca. S *et al.*, 2023 [13]. From the table 5 which depicted the correlation between trait anxiety and internet addiction it was found that the pearson's correlation was 0.221 which indicated a significant relationship. Which was also supported by the findings of Francesca. S *et al.*, 2023 [13].

From the above results and discussion it can be concluded

1. Female participants had higher trait anxiety than male participants.
2. Male participants had higher state anxiety than female participants.
3. It was also concluded that internet addiction had a significant correlation with trait and state anxiety.

### Contribution

1. This study can provide a guiding path for future researches
2. This study can contribute to the counseling psychology
3. The study can contribute to social psychology

### Conflicts of interest

No conflicts of interest

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## Appendix

**Table 1:** Trait Anxiety

Variable	N	Mean	SD	t	DF	Sig
Trait anxiety	50 (Female)	47.5600	6.97857	5.408	98	.000
Trait anxiety	50 (male)	39.2400	6.97857	5.408	95.021	.000

**Table 2:** State Anxiety

Variable	N	Mean	SD	t	DF	Sig
State Anxiety	50 (Female)	50.0200	5.30110	6.659	98	.000
State Anxiety	50 (Male)	60.5600	9.85644	6.659	75.159	.000

**Table 3:** Internet Addiction

Variable	N	mean	SD	t	DF	Sig
IAT	50 (Female)	70.0400	12.98030	3.797	98	.000
IAT	50 (Male)	79.4000	11.63212	3.797	96.845	.000

**Table 4:** Correlation

	State anxiety	Internet addiction
State anxiety Pearson's r	1	0.255
Significance N	100	0.011
Internet addiction Pearson's r	0.255	1
Significance N	0.11	100

**Table 5:** Correlation

	Internet addiction	Trait Anxiety
<b>Internet Addiction</b>		
Pearson's r	1	0.221
Significance N	100	0.27
<b>Trait anxiety</b>		
Pearson's r	0.221	1
Significance N	0.27	100