

Research Paper

Internet Addiction and Social Anxiety Among Adolescents Post Covid in Digital World

Chanchal Sehrawat^{1*}, Dr. Neelam Pandey²

ABSTRACT

The Coronavirus pandemic and subsequent social distancing measures have significantly increased the reliance on digital technology and the internet. Among the population, adolescents appear to be particularly vulnerable to developing addiction issues related to technology use. Recent studies have indicated a rising trend in social anxiety disorders among adolescents, likely attributed to the prolonged and extensive internet usage during the pandemic. The research conducted in this domain has highlighted a gap in understanding the relationship between internet addiction and social anxiety. To address this gap, a study was conducted with a sample size of 120 adolescents (60 males and 60 females) using purposive sampling. The Chen Internet Addiction Scale (CIAS) and Liebowitz Social Anxiety Scale (LSAS) were employed as assessment tools. Statistical analysis using SPSS revealed a positive correlation between internet addiction and social anxiety among both male and female adolescents post-COVID. This correlation was significant at the 0.01 level ($p < 0.01$). Furthermore, no gender difference was observed in terms of internet addiction. The findings of this study suggest the need for further research to compare results among different age groups. Additionally, factors such as attitude, self-esteem, quality of life, emotional needs, substance use, stress, and depression could be considered alongside internet addiction and social anxiety. Understanding these complex relationships will contribute to a more comprehensive understanding of the impact of the pandemic and subsequent lockdowns on adolescent mental health.

Keywords: Covid-19, Internet Addiction, Social Anxiety, Adolescents, Correlation, Gender Differences

The coronavirus (COVID-19) pandemic has severely impacted regular operations throughout the world. People all throughout the world were likely to face a variety of mental health issues during this outbreak. The amount of digital entertainment consumed has increased as a result of mandates and quarantines to stay at home. Psychological wellness issues, such as sleep deprivation, uneasiness, fears, fits of anxiety, and side effects like dissociative problems, are expected to deteriorate during and after the emergency. Addictive habits have raised the possibility of issues during lockdowns among the adolescent population.

¹Amity Institute of Psychology and Allied Sciences

²Amity Institute of Psychology and Allied Sciences

*Corresponding Author

Received: June 08, 2023; Revision Received: July 30, 2023; Accepted: August 06, 2023

ADDICTION

Addiction is characterized as the powerlessness to stop involving medication or involved in an act, notwithstanding the way that doing so is destructive to one's physical and psychological wellness. Dependence is a constant breakdown of the motivator, want, and memory frameworks in the mind. It has to do with how your body needs medication or propensity, particularly on the off chance that it prompts an obsessional or urgent longing for the "reward" as well as an absence of respect for the repercussions. Peele popularised the idea that addiction may develop even without psychotropic medications. Behavioral addictions are what these are known as. Although these addictions might be active or passive, they frequently include reinforcing characteristics that are present in the majority of addictions. Instances of non-illicit drug habits incorporate those to food, betting, the web, gaming, phones, and sex.

Internet Addiction

An addiction to the internet is a Behavioral addiction in which an individual becomes addicted to using the Internet or any other online medium as a maladaptive method of dealing with life's pressures. A psychological dependency on the Internet, irrespective of the sort of activity once signed on, has been referred to as internet addiction. Internet dependency, pathological internet usage, and obsessive computer use are other names for online addiction. Internet usage that is obsessive and uncontrollable and interferes with everyday life is the hallmark of internet addiction, also called Internet Addiction Disorder (IAD).

A fixation with the internet or digital media, increased internet usage despite the person's discomfort as a consequence, an increase in the quantity of internet use necessary to elicit the same intended emotional reaction, lack of self-control over internet usage, symptoms of withdrawal, and persistent compulsive internet use despite harm to one's employment, relationships, education, or personal life. are all examples of problematic internet use.

SOCIAL ANXIETY

A tireless and serious fear of group environments is alluded to as a Social Anxiety Disorder or Social Phobia. This issue makes it hard for an individual to cooperate socially, meet new individuals, and take part in occasions. They could stress that they'll be examined or decided by others. An ordinary issue frequently creates immaturity. It could be truly disturbing and altogether influence their lives.

Shyness and social nervousness are not something similar. In spite of the fact that timidity may be testing, it doesn't essentially obstruct everyday living the manner in which social tension does. Social Tension is consistent and overwhelming, and it can obstruct routine errands, for example, shopping for food. Rather than standard disquiet, Social Anxiety Disorder is portrayed by fear, stress, and evasion that obstructs relations, regular exercises, occupations, school, or many different exercises.

METHODOLOGY

The aim was to study the Internet Addiction and Social Anxiety among adolescents after COVID-19 in the digital world. The study will employ a correlational research design to examine the relationship between internet addiction and social anxiety. This design allows for the exploration of associations between variables without manipulating them.

Internet Addiction and Social Anxiety Among Adolescents Post Covid in Digital World

The Objectives were.

- To see the correlation between internet addiction and social anxiety among male and female adolescents post COVID.
- To analyse the difference in internet addiction among male and female adolescents post COVID.
- To analyse the difference in social anxiety among male and female adolescents post COVID.

The Hypothesis created were.

- H1- There will be significant correlation between internet addiction and social anxiety among male and female adolescents post COVID.
- H2- There will be a significant difference in internet addiction among male and female adolescents post COVID.
- H3- There will be a significant difference in social anxiety among male and female adolescents post COVID.

Sample Description

A diverse sample of participants were recruited from various demographics, including different age groups, genders, and socio-cultural backgrounds. The sample size was 120 adolescents consisting of 60 males and 60 females and purposive sampling was used. Adolescents studying in private school, belong to middle class families and are based out of Delhi are included in the study. Students who are studying in public/government school, who belong to any other state and are categorized in the late adolescent group are excluded from the study.

Data Collection

Data will be collected using standardized measures to assess both internet addiction and social anxiety. Established instruments such as the Chen Internet Addiction Scale (CIAS) and the Liebowitz Social Anxiety Scale (LSAS) were utilized to obtain reliable and valid measurements.

Internet Addiction – Chen Internet Addiction Scale (CIAS)

This test was developed by Chen. It consists of 26 items, which are rated on a 4-point Likert scale. It has constructed validity and the reliability coefficient Cronbach alpha was calculated as 0.89.

Social Anxiety - Liebowitz Social Anxiety Scale (LSAS)

This test was developed by Dr. Michael R. Liebowitz in 1987. It consists of 24 items which have two subscales each. 11 of the questions are about social circumstances, while 13 are about performance anxiety. It has Convergent validity (0.21 to 0.84) and has internal consistency reliability ($\alpha=0.90-0.96$).

Procedure

To study the internet addiction and social anxiety among adolescents after COVID in the digital world, the research was initiated. Numerous studies were examined, and a literature review was compiled. The predicted results were then determined, and hypotheses were developed. Chen Internet Addiction Scale (CIAS) and Liebowitz social anxiety scale (LSAS) were distributed and 60 male and 60 female adolescent's responses were recorded. All participants received a brief explanation of the current study's goal, and any questions

Internet Addiction and Social Anxiety Among Adolescents Post Covid in Digital World

they had about the questionnaire were answered. The surveys had no time restrictions, and there was no correct response to any of the questions. Data was gathered through school visits. The privacy of each participant's identity and information was guaranteed. The subjects gave their agreement and participated willingly in the study project.

Following the collection of the appropriate replies, the raw scores for each variable and each participant were recorded in excel sheets. SPSS was used for statistical analysis. To comprehend the link between the variables, Pearson Product Moment Correlation and T-Test techniques were used. The data was interpreted and analysed once they had been tabulated.

Statistical Analysis

Pearson Product Moment Correlation and T-test were used on an independent sample for acquiring the result for the research. Pearson Product Moment Correlation was used to determine the relationship between Internet Addiction and Social Anxiety among adolescents after COVID-19 in the digital world. T-test was used to determine the significant difference between the two means of the group which can be related.

RESULT

The mean, standard deviation, and two tailed significances were calculated for internet addiction and social anxiety and gender. Pearson correlation and independent t-test were used to verify the hypothesis. The results showed a connection between internet addiction and social anxiety among adolescents. Pearson correlation was used between internet addiction and social anxiety and .361 significance was observed at 0.01 level. Whereas to observe the gender variation for internet addiction and social anxiety a t-test was used, and the results showed that there was no significant difference among both the variables standard deviation was near about, thus, leading to a null hypothesis. Therefore, teenagers of both sexes may have resorted to internet equally and reduction was observed in social activities.

Table – 1 Correlation matrix of internet addiction and social anxiety among male and female adolescents post COVID.

Variable		Internet Addiction	Social Anxiety
Internet Addiction	Pearson Correlation	1	.361**
	Sig. (2-tailed)		<.001
	N	120	120
Social Anxiety	Pearson Correlation	.361**	1
	Sig. (2-tailed)	<.001	
	N	120	120

** Correlation is significant at the 0.01 level (2-tailed).

The above correlation matrix shows a significant positive correlation between internet addiction and social anxiety among male and female adolescents post COVID, with a correlation coefficient of 0.361** at the 0.01 level. This indicates that as internet addiction increases, social anxiety also tends to increase among adolescents. The correlation is significant for both males and females. The sample size for both variables is 120, and the results suggest that internet addiction and social anxiety may be interconnected issues for adolescents in the post-COVID era.

Table – 2 Group statistics of internet addiction among male and female adolescents post COVID.

Variable	Gender	N	Mean	Standard Deviation
Internet Addiction	Female	60	51.87	15.944
	Male	60	50.97	15.88

The table provides group statistics for internet addiction among male and female adolescents post-COVID. The results indicate that both males and females have similar levels of internet addiction, with a mean score of 50.97 and 51.87, respectively. The standard deviation for both groups is also similar, with females having a slightly higher standard deviation of 15.944 compared to males with a standard deviation of 15.88. These findings suggest that post-COVID, both males and females are equally susceptible to internet addiction, and efforts should be made to promote healthy internet usage among adolescents of both genders.

Table – 3 t-value, df and Sig. (2-tailed) of internet addiction among male and female adolescents post COVID. (N=120)

Internet Addiction	t	df	Sig. (2-tailed)
	0.31	118	0.757

The table presents the t-value, degrees of freedom (df), and two-tailed significance (Sig.) of internet addiction among male and female adolescents post-COVID, with a sample size of 120. The t-value of 0.31 indicates that there is no significant difference between the mean scores of internet addiction among males and females. The degrees of freedom are 118, which is the total sample size minus 2, and the two-tailed significance value of 0.757 suggests that the probability of obtaining these results by chance alone is high, and there is no statistically significant difference between male and female adolescents in terms of internet addiction post-COVID.

Table – 4 Group statistics of social anxiety among male and female adolescents post COVID.

Variable	Gender	N	Mean	Standard Deviation
Social Anxiety	Female	60	47.83	21.112
	Male	60	43.38	22.767

The table shows group statistics for social anxiety among male and female adolescents post-COVID. The results indicate that female adolescents have a higher mean score for social anxiety (47.83) than male adolescents (43.38), suggesting that females experience more social anxiety than males post-COVID. The standard deviation is also higher for females (21.112) compared to males (22.767), indicating that the data for females is more dispersed. These findings suggest that post-COVID, females are more prone to experiencing social anxiety than males, and interventions should be implemented to address this issue, particularly for females who may require additional support in managing their social anxiety.

Table – 5 t-value, df and Sig. (2-tailed) of social anxiety among male and female adolescents post COVID. (N=120)

Social Anxiety	t	df	Sig. (2-tailed)
	1.11	118	0.269

The table presents the t-value, degrees of freedom (df), and two-tailed significance (Sig.) of social anxiety among male and female adolescents post-COVID, with a sample size of 120. The t-value of 1.11 indicates that there is no significant difference between the mean scores of social anxiety among males and females. The degrees of freedom are 118, which is the total sample size minus 2, and the two-tailed significance value of 0.269 suggests that the probability of obtaining these results by chance alone is high, and there is no statistically significant difference between male and female adolescents in terms of social anxiety post-COVID.

DISCUSSION

The purpose of the study was to investigate the connection between internet addiction and social anxiety among adolescents in the digital age after COVID-19. By looking at the combined scores of both factors, this was determined. Gender differences in teenage boys' and girls' Social Anxiety and Internet Addiction following COVID were also examined. These three goals made up this study's major three aims.

Internet addiction is a word used to characterise extreme and obsessive internet use, which frequently has a detrimental impact on a human's social and personal life. Teenagers are more prone to developing an internet addiction because they're more prone to spend a great deal of time on internet as well as lack established self-control. Studies over the past few years, particularly when the COVID-19 epidemic started, have demonstrated a large rise in excessive usage of social media and video games. In comparison to pre-pandemic prevalence estimates, there was a relatively high usage of internet across twelve to seventeen year olds for the time following the final wave of COVID-19 outbreak (Paulus, et.al, 2022).

Social anxiety disorder is a psychological illness characterised by excessive dread, uneasiness, and uneasiness in social environments. It is frequent among teens and can have serious consequences in their life. Teenagers' social life have been significantly impacted by the COVID-19 epidemic and ensuing lockdowns, which has led to a rise in sentiments of feeling isolated and alone. Teenagers who fail to establish relationships as well as who feel uncomfortable about going back into social environments might find it especially harder to adjust to such changes.

Adolescents experiencing social anxiety might find it difficult to resume in-person socialising after lockdown. They could feel anxious about going to school as well as social gatherings, meeting new people, or participating in extra - curricular activities. This might result in avoidance behaviour, in which the teenager may completely retreat from social settings. Gains in social anxiety intensity across a period of five years strongly predicted worsening social distance worries following COVID-19 when analysing changes in symptoms over the course of time (Carlton, et.al, 2023).

Two questionnaires were utilised to conduct the study, evaluating Social Anxiety and Internet Addiction. The Liebowitz social anxiety scale (LSAS) and the Chen Internet

Internet Addiction and Social Anxiety Among Adolescents Post Covid in Digital World

Addiction Scale (CIAS) were given to 120 adolescents (60-males, 60-females). The completed surveys were assimilated, scored, and then analysed. According to the aims and the hypothesis, the outcome was estimated. The t-test and Pearson's Product Correlation were used for evaluation. The relationship between internet addiction and social anxiety was first discovered. To determine whether there may be a gender difference, a t-test was then conducted.

Objective 1 and the hypothesis (H1) formulated for it, with the use of Table 4.1, it was discovered that there is a positive correlation between internet addiction and social anxiety (.361**) which is significant at 0.01 level. As a result, hypothesis 1 is likely to be accurate.

Some people may have developed internet addiction like a result of the increasing usage of the web and social networking sites amid lockdowns, particularly adolescents that might have depended just on internet for interaction and enjoyment. On the contrary side, people with social anxiety may find it challenging to interact in social settings, which makes them reliant on the web and social networks for socialising. Furthermore, social anxiety sufferers might try comparing themselves with others available internet users and feel inadequate and afraid of humiliation as a result of their frequent usage the web and social networking sites.

Objective 2 and the hypothesis (H2) framed for it, with the usage of Table 4.2 and Table 4.3, it was found out that there exists no gender difference among males and females in internet addiction post COVID-19 lockdown.

The epidemic and ensuing lockdowns may have had a comparable effect on both sexes, which may have led to greater online use as well as subsequent dependency in both sexes. Teenagers of both sexes may have resorted to internet for fun and socialising as a result of school closures and less social activities.

Objective 3 and the hypothesis (H3) made for it, with Table 4.4 and Table 4.5, it was seen that there exists no gender difference among males and females in social anxiety post COVID-19 lockdown.

It may be that the outbreak and the ensuing lockdowns significantly impacted the social connections of teenagers of both sexes, resulting in elevated emotions such as loneliness, separation, as well as social anxiety.

CONCLUSION

The objective of this research was to comprehend the connection between adolescent internet addiction and social anxiety in the post-COVID-19 digital era. Liebowitz Social Anxiety Scale (LSAS) and Chen Internet Addiction Scale (CIAS) were used to gather data. A sample of 60 male and 60 female adolescents was used in the investigation. The study also looked for gender disparities, but it turned out that there weren't any. Adolescents' internet addiction and social anxiety showed a favourable link that was statistically significant.

According to the findings, social anxiety and internet addiction are positively correlated. This indicates that as a person becomes more dependent on the internet, their fear about interacting with others and worry about needing to socialise also grows and vice versa. Overall, it was seen the higher addiction to internet, higher will be the social anxiety. Plans for recovery that handle internet addiction and social anxiety could be successful in

Internet Addiction and Social Anxiety Among Adolescents Post Covid in Digital World

resolving the underlying problems and enhancing a person's general wellbeing. Therapy, medicines, and the development of coping mechanisms to control anxiety as well as restrict internet usage may all be part of this.

It was found out that there exists no difference between males and female among internet addiction. It is crucial to keep in mind that investigation on the differences between men and women in internet addiction remains in its early stages, so there could be additional variables at work that affect how males and females acquire internet addiction. Yet, it is evident that internet addiction may impact people of both genders, also treating the root causes of addiction is crucial for fostering healthy internet usage general wellbeing.

It was also seen that no gender difference occurs in social anxiety as well. Genetic factors, personal characteristics, plus environmental circumstances are just a few of the variables that might have an impact on social anxiety, a complicated mental health problem. There could be some gender-specific differences in how social anxiety manifests or is diagnosed, but these variations might not be substantial enough to explain a discernible gender distinction between social anxiety after lockdown.

Limitations

- The amount of time available for the research was restricted.
- The sample size was small.
- The number of prior research that examined the combined effects of the selected factors in an Indian context is limited.

Future Implications

- Further research might be carried out to contrast the results between the various age groups.
- Many factors, like attitude, self-esteem, quality of life, emotional needs, substance use, stress and depression, can be used with internet addiction and social anxiety.
- It is possible to study the differences between distinct ethnicities.

REFERENCES

- ALHarbi, B. H., Al-Mehsin, S. A., Al-Rababaah, J. K., & Ibrahim, K. A. A. A. (2021). The Predictive Ability of Social Anxiety within Internet Addiction among University Students. *Journal of Education and e-Learning Research*, 8(3), 290-298.
- Arad, G., Shamai-Leshem, D., & Bar-Haim, Y. (2021). Social distancing during a COVID-19 lockdown contributes to the maintenance of social anxiety: A natural experiment. *Cognitive therapy and research*, 45(4), 708-714.
- Banerjee, D. (2020). The COVID-19 outbreak: Crucial role the psychiatrists can play.
- Besser, B., Loerbroks, L., Bischof, G., Bischof, A., & Rumpf, J. (2019). Performance of the DSM-5-based criteria for Internet addiction: A factor analytical examination of three samples. *Journal of Behavioral Addictions*, 8(2), 288-294. <https://doi.org/10.1556/2006.8.2019.19>
- Biswas, P. R., Ahammed, B., Rahman, M. S., Nirob, B. M., & Hossain, M. T. (2022). Prevalence and determinants of internet addiction among adults during the COVID-19 pandemic in Bangladesh: An online cross-sectional study. *Heliyon*, 8(7), e09967. <https://doi.org/10.1016/j.heliyon.2022.e09967>

Internet Addiction and Social Anxiety Among Adolescents Post Covid in Digital World

- Boursier, V., Gioia, F., Musetti, A., & Schimmenti, A. (2020). Facing loneliness and anxiety during the COVID-19 isolation: the role of excessive social media use in a sample of Italian adults. *Frontiers in psychiatry, 11*, 586222.
- Cai, G., Lin, Y., Lu, Y., He, F., Morita, K., Yamamoto, T., ... & Wong, L. P. (2021). Behavioural responses and anxiety symptoms during the coronavirus disease 2019 (COVID-19) pandemic in Japan: A large scale cross-sectional study. *Journal of psychiatric research, 136*, 296-305.
- Carlton, C. N., Garcia, K. M., Honaker, M., Richey, J. A., & Ollendick, T. H. (2023). 5-year follow-up of adolescents with social anxiety disorder: Current functioning during COVID-19. *Psychiatry Research, 322*, 115118.
- Chaudhari, B., Menon, P., Saldanha, D., Tewari, A., & Bhattacharya, L. (2015). Internet addiction and its determinants among medical students. *Industrial psychiatry journal, 24*(2), 158.
- Coyle, S., Vagos, P., Masia-Warner, C., Silva, J., Xavier, A., Martin, G., ... & Nobre-Lima, L. (2022). A qualitative study of social anxiety and impairment amid the COVID-19 pandemic for adolescents and young adults in Portugal and the US. *European journal of education and psychology, 15*(2), 115-131.
- Dalbudak, E., Evren, C., Aldemir, S., Coskun, K. S., Ugurlu, H., & Yildirim, F. G. (2013). Relationship of internet addiction severity with depression, anxiety, and alexithymia, temperament and character in university students. *Cyberpsychology, Behavior, and Social Networking, 16*(4), 272-278.
- Dong, H., Yang, F., Lu, X., & Hao, W. (2020). Internet addiction and related psychological factors among children and adolescents in China during the coronavirus disease 2019 (COVID-19) epidemic. *Frontiers in psychiatry, 11*, 751.
- Duan, L., Shao, X., Wang, Y., Huang, Y., Miao, J., Yang, X., & Zhu, G. (2020). An investigation of mental health status of children and adolescents in china during the outbreak of COVID-19. *Journal of affective disorders, 275*, 112-118.
- Evli, M., & Şimşek, N. (2022). The effect of COVID-19 uncertainty on internet addiction, happiness and life satisfaction in adolescents. *Archives of Psychiatric Nursing, 41*, 20-26.
- Fernandes, B., Biswas, U. N., Mansukhani, R. T., Casarín, A. V., & Essau, C. A. (2020). The impact of COVID-19 lockdown on internet use and escapism in adolescents. *Revista de psicología clínica con niños y adolescentes, 7*(3), 59-65.
- Fulya, T. U. R. K., Aykut, K. U. L., & Kiliç, E. (2021). Depression-anxiety and coping strategies of adolescents during the Covid-19 pandemic. *Turkish Journal of Education, 10*(2), 58-75.
- Gupta, A., Khan, A. M., Rajoura, O. P., & Srivastava, S. (2018). Internet addiction and its mental health correlates among undergraduate college students of a university in North India. *Journal of family medicine and primary care, 7*(4), 721.
- Hawes, M. T., Szency, A. K., Klein, D. N., Hajcak, G., & Nelson, B. D. (2022). Increases in depression and anxiety symptoms in adolescents and young adults during the COVID-19 pandemic. *Psychological medicine, 52*(14), 3222-3230.
- <https://www.addictioncenter.com/drugs/internet-addiction/>
- <https://www.itu.int/itu-d/reports/statistics/2021/11/15/internet-use/#:~:text=In%202020%2C%20the%20first%20year,line%20with%20pre%2Dcrisis%20rates.>
- <https://www.statista.com/topics/2157/internet-usage-in-india/#topicOverview>
- Iqbal, J., Asghar, M. Z., Ashraf, M. A., & Rafiq, M. (2022). Social Media Networking Sites Usage and Depression Among University Students During the COVID-19 Pandemic:

Internet Addiction and Social Anxiety Among Adolescents Post Covid in Digital World

The Mediating Roles of Social Anxiety and Loneliness. *Social Media+ Society*, 8(3), 20563051221107633.

Itani, M. H., Eltannir, E., Tinawi, H., Daher, D., Eltannir, A., & Moukarzel, A. A. (2021). Severe social anxiety among adolescents during COVID-19 lockdown. *Journal of patient experience*, 8, 23743735211038386.

Jolliff, A., Zhao, Q., Eickhoff, J., & Moreno, M. (2021). Depression, anxiety, and daily activity among adolescents before and during the COVID-19 pandemic: cross-sectional survey study. *JMIR Formative Research*, 5(12), e30702.

Kar, S. K., Arafat, S. Y., Sharma, P., Dixit, A., Marthoenis, M., & Kabir, R. (2020). COVID-19 pandemic and addiction: Current problems and future concerns. *Asian journal of psychiatry*, 51, 102064.

Khubchandani J, Sharma S, Price J. COVID-19 Pandemic and the Burden of Internet Addiction in the United States. *Psychiatry International*. 2021;2(4):402-409. doi:10.3390/psychiatryint2040031

Acknowledgement

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Sehrawat, C. & Pandey, N. (2023). Internet Addiction and Social Anxiety Among Adolescents Post Covid in Digital World. *International Journal of Indian Psychology*, 11(3), 1580-1589. DIP:18.01.152.20231103, DOI:10.25215/1103.152