Indian Journal of Multidisciplinary Research (IJMR)
Volume- 1, Issue- 1 | January - March 2025

A Study on The Level of Video Game Addiction Among Adolescent Students of Urban Population

Akash Singh
Research Scholar, Department of Psychology, Allahabad Degree College

Abstract:

The current study focuses on how loneliness and personality factors affect teenage video game addiction. The participants (N = 100) were drawn by the snowball sampling method from metropolitan areas and ranged in age from 13 to 19. Data were gathered using sociodemographics, the NEO Five Factor Inventory for personality, the UCLA Loneliness Scale, and the Gaming Addiction Scale. The data were statistically analyzed using descriptive statistics, ANOVA, and Pearson's correlation. According to the ANOVA table, there is a statistically significant difference between the groups for high and low levels of video game addiction and loneliness, neuroticism and moderate and low levels, openness and high levels, and conscientiousness and low levels. The results table showed that low video game addiction had a significant link with consciousness (personality) while high video game addiction was significantly correlated with loneliness, neuroticism, and openness (personality). The Pearson's R table revealed a substantial link between high levels of gaming addiction and loneliness, while low levels of gaming addiction and loneliness also showed a significant correlation. Additionally, a substantial association was discovered between neuroticism and medium-level video game addiction. Additionally, a substantial association was discovered between conscientiousness and low video game addiction and between high video game addiction and openness.

Keywords: Video game addiction, loneliness, neuroticism, openness, conscientiousness, adolescent.

Introduction

The proliferation of technological advancements and the subsequent development of various electronic gadgets have bestowed upon us the phenomenon of video games. Over the recent years, video games have emerged as a widely favored kind of recreational pursuit. This phenomenon has significant popularity among the adolescent demographic. The excessive utilization of this phenomenon has begun to impede the routine tasks of an individual. In 2013, the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) introduced internet gaming addiction as a novel conceptualization. Excessive levels of gaming addiction have a detrimental impact on individuals' daily functioning. A recent study conducted by Husna et al. (2022) revealed a significant correlation between high levels of internet addiction and academic performance, indicating a negative association between the two variables. The significance of personality traits in the development of video game addiction has been identified as significant.

According to a recent study conducted by Kim et al. (2022), it was shown that those who engage in online gaming have lower levels of conscientiousness. Conversely, it was found that

conscientiousness had a positive correlation with video game addiction, as indicated by the study conducted by Mark and Ganzach (2014). According to a study conducted by Z. Liao et al. (2020), a significant correlation was seen between elevated levels of video game addiction and decreased levels of conscientiousness. Potard et al. (2019) reported same findings in their investigation. In a separate investigation conducted by Vollmer et al. (2014), it was shown that there was no statistically significant correlation between video game addiction and conscientiousness.

According to a study conducted by Basha (2021), a positive correlation was shown between video game addiction and neuroticism. In a separate investigation conducted by Potard et al. (2019), it was shown that those exhibiting video game addiction had reduced levels of conscientiousness, openness, and extraversion. According to Bueso et al. (2018), individuals who exhibit internet gaming addiction tend to display elevated levels of introversion, histrionic tendencies, and identity uncertainty. A study conducted by Fang Liu et al. (2020) discovered that neuroticism had a mediating role in the association between early psychological abuse and smartphone addiction. In contrast, research conducted by S. Dilwar et al. (2022) did not find a direct association between social media addiction and neuroticism. However, the study did identify that this link was influenced by the extent of social media usage. In a separate investigation conducted by Kulkarni et al. (2020), it was observed that there was no statistically significant distinction observed between individuals addicted to Player Unknown's Battlegrounds (PUBG) and those exhibiting neuroticism.

Several research have indicated a correlation between extraversion and internet usage. According to the study conducted by Mark and Ganzach in 2014, several research has also demonstrated a negative correlation between internet addiction and extraversion (Sainy et al., 2016). A study conducted by S. Dilwar et al. (2022) found a clear and noteworthy correlation between extraversion and social media addiction. According to a study conducted by C. Vollmer et al. in 2014, it was shown that there is a negative correlation between extraversion and video game addiction among students. On the contrary, a study conducted by Chiho OK (2021) revealed a significant positive correlation between extraversion and problematic gaming use.

A study conducted by Witt et al. (2011) has identified a correlation between the personality trait of openness and the occurrence of video game addiction. There was no statistically significant difference seen between individuals with addiction to PUBG and their level of openness. According to the study conducted by Kulkarni et al. (2020),

According to a study conducted by L.M. Baun in 2015, a correlation was shown between internet gaming problems and low agreeableness. According to a study conducted by Vollmer et al. (2014), there was a correlation seen between lower levels of computer game addiction and the personality trait of agreeableness.

It is widely acknowledged that video games encompass a diverse range of genres. These can be classified as role-playing, simulation, problem-solving, and several other categories. Over time, several academics have undertaken investigations about abouton between video game

addiction and personality features. A study done by B. Braun et al. (2016) has demonstrated a positive correlation between those with elevated levels of gaming addiction and heightened neuroticism. Additionally, it was emphasized that those exhibiting high levels of extraversion and low levels of neuroticism had a preference for action-oriented video games. Individuals exhibiting high levels of neuroticism have a propensity for gravitating towards games characterized by violent themes. (Chory&Goodboy, 2011) conducted a study on the topic. Individuals with lower levels of extraversion have shown a preference for engaging in role-playing games within the gaming community. According to Douse and McManus (1993), The findings of the study indicate that those who engage in casual video game playing have higher levels of extraversion and conscientiousness within the area of personality. According to a study conducted by Potard et al. (2020), individuals who engage in arousal video games were shown to exhibit lower scores in the openness domain of personality.

The experience of loneliness presents a notable juxtaposition in the context of video game addiction. Numerous studies have investigated the correlation between feelings of isolation and the development of compulsive video gaming tendencies. According to a study conducted by Wang et al. (2019), there is a favorable correlation between mobile gaming addiction and feelings of loneliness. However, a study conducted by S. Kanat (2019) found no significant statistical relationship between loneliness and digital gaming addiction. According to a study conducted by HS.Qureshi et al. in 2013, it was apparent that engaging in pathological gaming might lead to the experience of loneliness due to the stimulation of hostility. A separate study conducted by Ekinci et al. (2019) revealed a significant correlation between gaming addiction and feelings of loneliness. A further study conducted by Mun (2022) revealed that loneliness was recognized as a contributing factor to the development of gaming addiction in teenagers. A study conducted by H.K. Eren et al. (2018) revealed a statistically significant positive correlation between feelings of loneliness and addiction to computer games. Tras and Zeliha (2019) conducted a study that revealed a substantial association between loneliness and internet addiction. Further research conducted by Pontes et al. (2014) provided further evidence supporting the association between feelings of loneliness and the development of internet addiction. In a study conducted by B. Bozoglan et al. (2013), it was shown that loneliness had the strongest correlation with internet addiction. Ayas et al. (2013) discovered that both loneliness and sadness were significant indicators of internet addiction.

Objectives

1. To study the level of video game addiction among adolescents (male & female)
2. To study the loneliness of the adolescents with respect to their level of video game addiction (High, Medium & Low)
3. To study the pattern of personality trait of the adolescents in terms of their level of video game addiction (High , Medium & low)

Hypothesis

1. There will be a significant difference between genders of the adolescents in respect to their video game addiction (Male & female)

2. There will be a significant difference between loneliness of the adolescents with the respect to their level of video game addiction (High, Medium & Low)
3. There will be a significant difference between the patterns of personality trait of the adolescents with the respect to their level of video game addiction (High, Medium & Low) Methodology Sample.

The sample of 100 adolescents (39 female and 61 male) was selected through snowball sampling. The age range of the sample was of 13-19 years. The study was conducted in Kolkata. The participants completed the questionnaires that were given to them along with socio demographics.

Instruments

The data of this study was obtained by game addiction scale (lemmens et al,2011), Neo five factor inventory (Costa & McCrae, 1992) and the UCLA Loneliness scale (Russel.D,Peplau,1978, version 3). The cornbach's alpha of the scales were as follows, Neo five factor Invetory: 0.813, Game addiction scale: 0.520, UCLA loneliness scale: 0.417.

Procedures

The initial step of the procedure was to establish a rapport with the participants. The age group of the participants were of 13-19 years. It is important to say that the participation for this study is voluntary. The have the freedom to leave the process of the study whenever they want to. At first the participants were asked to fill out the demographic form. After that the questionnaires for the present test were given one after another. It was made sure that the participants understood all of the items. For this present study mean, SD, Anova and pearson's R was done for the analysis.

Results

Table 1

Analysis of the variable was done to test the mean difference to identify significant difference in the nature of level of video game addiction among the adolescent students (male and female)

Gender	mean	sd	anova	df	significance
male	24.28814	5.429964	218.9	1	0.001
female	24.425	4.776478	102.4	1	0.001

Table 2

Analysis of the variable was done to test the mean difference to identify the level of loneliness the adolescent students with respect to their level of video game addiction level (High, moderate, low)

loneliness	mean	sd	anova	df	significance

High Video game addiction	54.45	6.278409	4.397	1	0.0467*
Medium Video game addiction	51.19697	5.992867	2.132	1	0.151
Low Video game addiction	47.14286	7.676495	5.564	1	0.0268*

Table 3

Analysis of the variable was done to test the mean difference to study the pattern of personality trait of the adolescent students in terms of their level of video game addiction (high , moderate and low)

Personality trait	mean	sd	anova	df	significance
Neuroticism & High Video game addiction	48.05	4.871777	0.135	1	0.717
Neuroticism & Medium video game addiction	42.78788	6.986834	14.7	1	0.000389***
Neuroticism & low video game addiction	32.85714	6.71778	4.31	1	0.0488*
Extraversion & High video game addiction	35.85	6.674973	0.706	1	0.409
Extraversion & Medium Videogame addiction	36.4697	5.564226	0.519	1	0.4
Extraversion and low video game addiction	35.19048	5.988481	1.032	1	0.32
Openness & High Video game addiction	35.5	3.818239	6.613	1	0.0167*

Openness & medium Video game addiction	36.30303	4.765161	3.526	1	0.0669
Openness & low Video game addiction	35.19048	6.193699	3.04	1	0.094
Agreeableness & HighVideo Game addiction	3.05	4.650693	1.375	1	0.252
Agreeable ness & Medium Video Game Addiction	35.56061	4.650693	1.375	1	0.252
Agreeableness & Low Video game addiction	36.09524	6.032452	0.13	1	0.722
Conscientiousness High Video game addiction	33.15	4.579991	0.57	1	0.458
Conscientiousness & Moderate Video game addiction	34.92424	4.717596	2.222	1	0.143
Conscientiousness & Low video game addiction	37.28571	6.149332	4.754	1	0.0393*

Discussion :

This study aims to compare between the level of game addiction, loneliness, attachment style and personality traits of adolescents. The first objective of the study was, to study the level of game addiction among the adolescent students (male and female).The result of the current study showed that there was a significant difference in the nature of level of game addiction among adolescent students (male and female). The mean of video game addiction of men was 24.28 on the other hand the mean of video game addiction of female participants were 24.42. The mean of video game addiction of female participants were higher than male participants. The video game addiction or the exposure to the video game is more common in the male adolescent than the female. But in this 21st century women are also being exposed to the video games (olatzlopez- Fernandez et al, 2019) and that is a reason for a significant difference in the nature of level of game addiction with the gender of the students. From the above this is evident that the alternative hypothesis has been accepted.

The second objective was, to study the level of loneliness of the adolescent students with respect to their level of game addiction (high, medium and low). The result of the current study showed that there was a significant difference between the level of loneliness of the student and with their level of game addiction. The anova of the high video game addiction and loneliness was found to be 4.397 and the statistical significance was tested on 0.04 level for higher video game addiction and loneliness and on 0.02 level for low videogame addiction for loneliness. From the literature review it was evident that few of the findings suggested that there was a positive correlation between the video game addiction and loneliness (Agarwal et al,2017). The current study showed a significant difference between loneliness and level of video game addiction. So it can be said that due to post pandemic situation people who are feeling alone or lonely may not seek escape through playing video games. Here the null hypothesis has been rejected.

The 3rd objective of the study was to study the pattern of personality traits of the adolescent students in terms of their level of video game addiction.(high , moderate, low). In this current study it was found that there is a positive statistically significant correlation between the neuroticism (personality trait) and level of game addiction. Since the level of game addiction was divided in to three groups. It was found that the group who scored moderate in the video game addiction scale also scored high in the neuroticism scale. This is supported by the study of Muller et al,2016. Thus it can be said that the null hypothesis has been rejected and alternative hypothesis has been accepted. On the other hand it was found that students who scored high on Video game addiction scale also secured a high score on openness. Thus it can be said that the null hypothesis has been rejected and alternative hypothesis has been accepted. It was also found that there was a significant difference between low video game addiction and conscientiousness. So it can be said that the null hypothesis has been rejected and alternative hypothesis has been accepted. It was also found that there was a significant correlation between conscientiousness and low videogame addiction.

Conclusion

The correlational analysis indicated that the trend of neuroticism is an important precondition for facilitating the trend of video game addiction among the adolescent students. High and low video game addiction was correlated to loneliness. Neuroticism was correlated to medium and low video game addiction. Openness had a significant correlation with high video game addiction. And conscientiousness was correlated to low video game addiction.

References

1. Ayas, T., &Horzum, M. (2013). Relation between depression, loneliness, self-esteem and internet addiction. Education, 133(3), 283-290.Qureshi, H. S., Khan, M. J., &Masroor, U. (2013). Increased aggression and loneliness as potential effects of pathological video-gaming among adolescents. Pakistan Journal of Social & Clinical Psychology, 11(1).
2. Basha, E. (2021). The relationship between game addiction and personality traits. Erciyes Journal of Education, 5(2), 149- 160.

3. Braun, B., Stopfer, J. M., Müller, K. W., Beutel, M. E., &Egloff, B. (2016). Personality and video gaming: Comparing regular gamers, non-gamers, and gaming addicts and differentiating between game genres. Computers in Human Behavior, 55, 406-412.
4. Bozoglan, B., Demirer, V., &Sahin, I. (2013). Loneliness, self-esteem, and life satisfaction as predictors of Internet addiction: A cross-sectional study among Turkish university students. Scandinavian journal of psychology, 54(4), 313-319.
5. Chory, R. M., &Goodboy, A. K. (2011). Is basic personality related to violent and nonviolent video game play and preferences?. Cyberpsychology, behavior and social networking, 14(4), 191–198.
6. Dilawar, S., Liang, G., Elahi, M. Z., Abbasi, A. Z., Shahani, R., &Gonlepa, M. K. (2022). Interpreting the impact of extraversion and neuroticism on social media addiction among university students of Pakistan: A mediated and moderated model. ActaPsychologica, 230, 103764.
7. Douse, N. A., & McManus, I. C. (1993). The personality of fantasy game players. British Journal of Psychology, 84(4), 505-509.
8. Ekinci, N. E., Yalcin, I., &Ayhan, C. (2019). Analysis of loneliness levels and digital game addiction of middle school students according to various variables. World Journal of Education, 9(1), 20-27.
9. González-Bueso, V., Santamaría, J. J., Fernández, D., Merino, L., Montero, E., JiménezMurcia, S., ...&Ribas, J. (2018). Internet gaming disorder in adolescents: Personality, psychopathology and evaluation of a psychological intervention combined with parent psychoeducation. Frontiers in Psychology, 9, 787
10. Graham, L. T., & Gosling, S. D. (2013). Personality profiles associated with different motivations for playing World of Warcraft. Cyberpsychology, Behavior, and Social Networking, 16(3), 189-193.
11. Husna, F., Jamin, H., &Juliandi, R. (2022). The effects of mobile games on elementary school students' achievement in aceh. JurnalBasicedu, 6(1), 308-314.
12. Hülya, K. Ö. K., &Örsal, Ö. (2018). Computer game addiction and loneliness in children. Iranian journal of public health, 47(10), 1504.
13. Kim, D., Nam, J. K., &Keum, C. (2022). Adolescent Internet gaming addiction and personality characteristics by game genre. Plos one, 17(2), e0263645.
14. Kulkarni, S. N., &Kotalwar, K. (2020). Study of neuroticism, openness to experience and agreeableness between PUBG addicts and non PUBG addicts: A comparative analysis. IAHRW International Journal of Social Sciences Review, 8.
15. Kanat, S. (2019). The Relationship Between Digital Game Addiction, CommunicationSkills and Loneliness Perception Levels of University Students. International Education Studies, 12(11).
16. Liao, Z., Huang, Q., Huang, S., Tan, L., Shao, T., Fang, T., ...&Shen, H. (2020). Prevalence of internet gaming disorder and its association with personality traits and gaming characteristics among Chinese adolescent gamers. Frontiers in Psychiatry, 11, 598585.

17. Liu, F., Zhang, Z., & Chen, L. (2020). Mediating effect of neuroticism and negative coping style in relation to childhood psychological maltreatment and smartphone addiction among college students in China. Child Abuse & Neglect, 106, 104531.
18. Lopez-Fernandez, O., Williams, A. J., Griffiths, M. D., &Kuss, D. J. (2019). Female gaming, gaming addiction, and the role of women within gaming culture: A narrative literature review. Frontiers in psychiatry, 10, 454.
19. Lehenbauer-Baum, M., Klaps, A., Kovacovsky, Z., Witzmann, K., Zahlbruckner, R., &Stetina, B. U. (2015). Addiction and engagement: An explorative study toward classification criteria for internet gaming disorder. Cyberpsychology, Behavior, and Social Networking, 18(6), 343-349.
20. Mun, I. B., & Lee, S. (2022). A longitudinal study of the impact of parental loneliness on adolescents' online game addiction: The mediating roles of adolescents' social skill deficits and loneliness. Computers in Human Behavior, 136, 107375.
21. Mark, G., &Ganzach, Y. (2014). Personality and Internet usage: A large-scale representative study of young adults. Computers in Human Behavior, 36, 274-281.
22. Ok, C. (2021). Extraversion, loneliness, and problematic game use: A longitudinal study. Personality and Individual Differences, 168, 110290.
23. Pontes, H. M., Griffiths, M. D., &Patrão, I. M. (2014). Internet addiction and loneliness among children and adolescents in the education setting: An empirical pilot study. Aloma: Revista de Psicologia, Ciències de l'Educació i de l'Esport, 32(1).
24. Potard, C., Henry, A., Boudoukha, A.-H., Courtois, R., Laurent, A., &Lignier, B. (2020). Video game players' personality traits: An exploratory cluster approach to identifying gaming preferences. Psychology of Popular Media, 9(4), 499–512.