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

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Abstract:

This investigation studies how loneliness and personality affect young teens' habits of becoming addicted to video games. The research included 100 participants from 13 to 19 years of age who joined a snowball sample from cities. The research team collected both behavioural and personality information from participants including basic social and demographic data using the NEO Five-Factor Inventory and UCLA Loneliness Scale results plus Gaming Addiction Scale answers. Our research team conducted statistical analysis by reporting basic results and performing tests with ANOVA and Pearson's correlation.

The test produced clear distinctions across study groups which depended on participants' video game addiction standing as well as their loneliness degree, neuroticism trait, openness to experience personality, and personhood organisational skills. Both studies produced distinct findings that showed lower levels of conscientiousness linked to lower addiction but increased addiction caused greater loneliness and stronger neuroticism combined with higher openness. Statistics confirm that having high video game addiction leads to isolation. When participants played video games only a bit they experienced better social connexions. This research shows a clear link between both neuroticism and video game addiction along with the opposite relationship between conscientiousness and addiction level. The more open a person is the higher their video game addiction becomes.

The study shows how various aspects of adolescent personality and emotional life combine to create video game addiction behaviour.

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.

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

The variable was analysed to assess the mean difference, aiming to identify significant variations in the level of video game addiction among adolescent students, both 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

The variable was analysed to assess the mean difference in order to determine the level of loneliness among adolescent students in relation to their degree of video game addiction (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

The variable was analysed to examine the mean difference in order to investigate the pattern of personality traits among adolescent students based on their levels of video game addiction (high, moderate, and low).

Personality	mean	sd	anova	df	significance

trait					
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 :

Our research study analyses how game addiction interacts with experiences of loneliness and bonding styles as well as basic personality traits in young people. This research measured how deeply students were addicted to gaming across both genders. The study shows that adolescent students vary greatly in how addicted they are to games no matter their gender. The total number of video game habits show 24.28 in boys and 24.42 in girls. Female students developed more video game addiction on average than male students did. More male teens develop video game excessive play or spend more time with video games compared to female teens. Current research shows women are taking a bigger part in video games today (Olatzlopez-Fernandez et al. 2019) which changes how much and how students of each gender get addicted to games. Our findings prove that the alternative hypothesis needs to be adopted.

The second objective was to examine the relationship between the level of loneliness experienced by adolescent students and their degree of game addiction (high, medium, and low). The findings of the present study indicated a notable disparity between students' levels of loneliness and their degree of gaming addiction. The ANOVA results indicated a value of 4.397, with statistical significance assessed at the 0.04 level for higher video game addiction in relation to loneliness and at the 0.02 level for lower video game addiction concerning loneliness. The literature review clearly indicated that several findings pointed to a positive correlation between video game addiction and loneliness (Agarwal et al., 2017). The present investigation revealed a notable disparity between feelings of loneliness and the degree of video game addiction. It can be observed that in the aftermath of the pandemic, individuals experiencing feelings of solitude or loneliness might not turn to video games as a means of escape. The null hypothesis has been rejected in this instance.

The 3rd study objective determined how personality traits link to different video game addiction levels in teen students. This study demonstrated that neuroticism as a personality trait shows a direct connexion with video game addiction levels. The research split game addiction

into three levels to analyse it. Those students with a moderate video game addiction also rated very high in neuroticism. Muller et al. from 2016 confirms these findings. Through the research we have shown that the null hypothesis does not stand and the alternative hypothesis is correct. People who heavily played video games scored increased on their openness measures. Based on these findings the study rejects the null hypothesis and accepts the alternative hypothesis. The study revealed significant differences exist between people with low video game addiction and their conscientiousness levels. Based on our findings the null hypothesis has been rejected and the alternative hypothesis has been accepted. Researchers detected a clear relationship between high conscientiousness and reduced problem with video games.

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. Results from this research show what teenage students in urban areas think about video game addiction. The research data shows many young people play games beyond control while others enjoy games normally and do not face major impacts on their daily life. Students developed video game addictions mainly due to quick gaming platform access and spending time with gaming friends plus weak parental oversight. Research proves unhealthy relationships between urban environments and young gamers because these places offer more access to technology and digital entertainment. People benefit from better thinking skills and stress reduction through video games but develop addiction problems when they play excessively or unevenly.

Caregivers should collaborate with schools and neighbourhoods to teach optimal gaming use while suggesting physical activities reading or social-based pastimes. Researchers must study how video game addiction influences student mental health and education results over time while creating better solutions for this issue.

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.