

### SHAPING YOUNG MINDS IN PAKISTAN: IMPACT OF EXCESSIVE GAMING ON CHILDREN'S PERCEPTIONS AND GENDER BEHAVIOUR

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#### ABSTRACT

Thus, this study aims to capture the children's point of view and their understanding of extreme video game utilization, especially video game dependence. Specifically, the more time that is spent on playing a particular game, the greater the emphasis that becomes placed on that particular game and the more addictive it becomes; this aspect has been noted in both psychological perspectives and media. The research seeks to find out how many hours boys and girls spend in gaming and if there are any differences. A cross-sectional descriptive research, employing semi-structured group and individual interviews was used among children of 8-15 years from Pakistan. The subjects selected were 15 boys of age group 8-15 years, and 15 girls of age group 8-15 years. This study obtained themes that highlighted that the negative effects of excessive playing of video games include; change of behaviour, social relationships, and personality. These findings support prior research that indicates that excessive gaming is damaging. The study recommends the need for future work to establish the developmental outcomes of video game addiction and to determine the general requirements for intervention aiming at enhancing the appropriate utilization of video games.

**Keywords:** Video game addiction, Child behavior, Mental health, Gender differences, Social interaction, Gaming overuse, Developmental consequences, Qualitative research.

#### INTRODUCTION

In this era of technology, everything seems to be taken over by technology along with digital media. Mobile phones are the most needed item these days. The use of technology has not been confined to the workplace but is used in every domain these days, especially for entertainment purposes. In such circumstances where everyone seems glued to their phones, children are no exception.

Video game addiction refers to the development of an obsession with and dependency on video games. Children have developing brains, and thus they are affected by this phenomenon the most. Children usually start playing video games in their free time, which eventually replaces their entire day. Once addicted, children tend to play video games for hours and hours until they feel worn out and have to go to sleep; and often sacrifice their sleep time for games. Certain problematic psychological phenomena have also been observed among children where they develop sleep issues, e.g., insomnia. The intensity of playing video games can result in poor sleep (Altintas et al., 2019).

Moreover, when children spend all of their time playing video games, they cannot spend as much time. Their relationships with friends and family weaken with time. Such children often develop apathy as their emotional development has not been healthy and normal. Therefore, video game addiction's effects also seem to be changing the degree of personal ties that children have with their family members (National, 2016).

Computer game dependence as a social marvel can prompt mental issues among youngsters and consequently, they are more helpless against

mental dangers. The mental dangers bring about conduct issues in the people and hence they get distinctive social connection styles. The practices of the kids alongside their social issues are regularly stored in a room connected with impact on the view of kids (Zamani et al, 2009). The views of the kids are regularly founded on extraneous prizes. To get the outer prizes people frequently become both serious and rough. This can clarify the topic of youngsters in the time of the web who have simple admittance to things along these lines that are influencing their social turn of events.

Their actual social advancement is transforming into a virtual social turn of events. Computer game compulsion doesn't generally have unfavorable impacts, yet can have certain beneficial outcomes also. Computer game addictions frequently have certain legends that ought to be tested. One subject depicting the constructive outcomes is expanded family communications. Expanded family communications bring about prepping the character of every person. Subsequently, computer game enslavement ought not to be viewed as an obstruction to the standard typical and better working of every kid Stavrou, P. (2018).

There are several adverse effects of video game addiction that can be enumerated. However, why do children get into video games more often, and what are their thoughts about video gaming? Therefore, this study aims to provide insight into children's thoughts about their video gaming experience. Children must have their reasons for getting addicted to video games on digital media. It is significant to know why children cannot leave video gaming and if their motives are logical and valid.

#### **Problem Statement**

With the growing popularity of digital gaming, there has been growing concern from parents and educators about the effects that it has on children and there is scant research that directly asks the child about his or her views on his or her use of digital games. This research fills a significant gap within the literature, which focuses on children and how they understand the issue of overindulgence in video games on digital media platforms about the amount of time devoted to gaming, the reason for participating, and the perceived impact on their lives specifically in Pakistan. There is very little research on this topic in Pakistan. Furthermore, it

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aims at comparing the perceptions of male and female children toward these goals therefore classifying the findings as gender-based. It is useful when designing gender-specific interventions and understanding video game consumption with children outside of aggression and its other results implications such as gender implications.

### Objectives

- 1. To explore the influence of excessive video gaming on children's perceptions of family relationships and social interactions.
- 2. To examine how gender differences, affect the impact of video game content on children's personality development and gaming behaviour.

### **Research Question**

**RQ1:** How does excessive video gaming influence children's perceptions of family relationships and social interactions?

**RQ2:** In what ways do gender differences affect the impact of video game content on children's personality grooming and gaming behaviour?

### Significance of the Study

The attitudes of children and the possibility of developing game addiction are the key issues of this paper while concentrating on the Pakistani scenario. Although there is a heightened concern about the impact of video game use, most of what has been documented is concerned with sociopolitical use such as; children playing video games due to a lack of child caregivers, or due to their inability to go out to play. Nonetheless, the literature review shows that there is a lack of research regarding children s attitudes and perceptions about gaming in Pakistan, including concept of gaming addiction. the Thus, this research fills this gap in knowledge by providing understanding from the Pakistani children's perspective rather than the adultcentered approach present in most of the studies on video game addiction. This study will complement the existing body of knowledge by adopting children's voices from Pakistan. The findings and recommendations that will be presented in this research will be quite helpful, especially for the parents and children as it will help them to develop

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an understanding of the use of video games and more of the effects that will be caused by the use of the video games in the local context.

#### Literature review

Video game addiction refers to the dependence on video games for a longer time. It is also known as playing video games to the extent that an individual's performance in overall domains of life starts getting disturbed (Weinstein, 2010).

Major causes of game addiction are generally known to be the discouraging family through which the time spent by children on the screen increases significantly decreasing their grades. Having stronger ties with family and a supportive family only aids the process (Demirtas et al., 2015). Interaction inside a video diversion incorporates more than connections with outsiders. Durkin and Barbar (2002) clarify that gamers tend to have a higher level of family closeness as compared to youths who don't play diversions at all suggesting that social cohesion inside the family is for the most part higher with gamers. Moreover, despite the truth that video diversions are often played alone, numerous gamers would lean toward playing with companions or family as demonstrated by interviews with LAN gamers (Jansz & Martens, 2005).

This might be, in portion, since the game environment permits family individuals to connect in an unused and interesting arrangement that cultivates harmony and group work. Work by Kubey and Larson (1990) recommends that young people playing video games may show higher excitement and more positive subjective states when they play video games with companions or family. In case playing with family and companions can upgrade the involvement of playing video diversion at that point this may be an incentive for teenagers to look for their family and friends to play the diversion with. Durkin and Barber (2002) propose this exceptionally thought claiming that youths who feel near to their families may play video diversions more habitually to share the encounter with family members. In specific, gaming together can deliver more grounded bonds between fathers and sons (Jansz & Martens, 2005). It is imperative to say that video diversions are not as it was played by youths and children. In truth, the normal age of today's gamer is 29 (Rosser Jr. et al., 2007). Advance, the average age of an MMORPG player within the ponder conducted by Cole and Griffiths (2007) was 23.6 a long time with about 30% of players being more seasoned than 25. Interests, as it were one-fifth of the players within the consideration were beneath age 18. This appears that video recreations are becoming more satisfactory and indeed pleasant to grown-ups making the potential for family interaction inside the game higher.

There is role of age and gender seen among individuals considering the difference in perceptions however the class that they study in along with their socioeconomic status is not that important (Keser and Esgi, 2012). Gender does not affect the information of parents much.

Both parents and children seem to be aware of the consequences of the games. The parents, when asked about their perceptions of the games, often talk about the positive and negative effects of video games (Nielsen, and Kardefelt, 2018). Parents should be aware of the mental health of their children as well.

Video game addiction has some serious issues with the mental health of children. People are involved in video games so much so that their mental health, close relationships along sleep routines are getting affected. Playing video games all day deprives a person of the need to socialize physically with the people around them.

Moreover, Additional screen time creates a dependency on social media for entertainment that increases emotional as well as perceptual stressors among individuals (Khalili-Mahani et al., 2019). Video game addiction can lead to mental health issues. Video game Addiction, also referred to as Gaming disorder has increased to the extent that it is also thought to add it into DSM (V) (Bean et al., 2017). Furthermore, video game addiction can cause screen addiction.

Video game addiction has a strong link with screen addiction. Screen addiction is having a bad impact both on the mental and physical health of individuals. Sleep deprivation acts as a mediating agent in the poor health of people addicted to their screens. Thus, excessive use of screens leads to issues since they deprive an individual of enough sleep. In terms of sleep, there are three major effects of screen addiction.

The first one is time displacement; When each individual is spending the time that is supposed to be spent studying, doing activities, or sleeping,

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using gadgets. The second one is the impact of the content shown in the media on the thinking of each person. Video game addiction has a direct relationship with disturbed sleep routines. There is a strong relationship between Sedentary activities and sleep duration (Štefan et al., 2019).

Sleeping instead of performing any sedentary activity yields positive effects (Gilchrist et al., 2021). When the sleep cycle of an individual is affected, their behavior starts becoming problematic. Replacing the time needed for sleep by screen results in mental and behavioral issues. An adequate amount of sleep is always given priority over sedentary activities. Furthermore, it also plays a crucial role in strengthening an individual's self-regulatory behavior and executive functioning (Fanning et al., 2017).

Screen time affects normal routines especially sleep routines because of the rays emitted (LeBourgeois et al., 2017). Change in sleep routines affects lifestyle and thus cultures are affected.

Online games serve as a medium of cultural communication and become а cultural phenomenon (Crawford, Gosling & Light, 2011). One of the most played video games in Pakistan is PUBG. PUBG is an online game that stands for Player Unknown's Battleground, a game that shows a battleground with specific teams, pairs, or solo players who tend to have a battle and combat the enemies. The game includes maps, certain supplies, settings, and instructions aligned with the military settings' concepts. Video game addiction has psychological risks as well.

The creation of this game was inspired by Battle Royale, which is a Japanese movie that has certain psychosocial risks, especially among teenagers, which often makes it vulnerable to being banned (Mamun& Griffiths, 2019). There seems to be a strong correlation between IDG (Internet gaming Disorder), ADHD (Attention Deficit Hyperactivity Disorder), and GAD (Generalized Anxiety Disorder), and playing PUBG (Aggarwal, Saluja, Gambhir, Gupta &Satia, 2020). The suicide rate among Pakistani adolescents (especially with psychological predispositions) who play PUBG has also been noticed (Mamun, Ullah, Usman & Griffiths, 2020). The psychological risks often give rise to behavioral issues.

Addiction to video games can have a bad impact on the behavior of children. To satisfy certain needs, the children develop attachment behavior with their gadgets and play video games. This abnormal attachment results in dysfunctional behavior where children tend to misbehave with their parents, bully other children, and start skipping meals and sleeping late (King et al., 2010). Behavioral issues result from Behavioral addictions.

Behavioral addictions tend to have a connection and similarities. The behavioral addictions of video games also relate to the behavioral addictions of the internet (Gunuc, 2015). There has been a lot of research on the opinions of researchers about gaming disorders. A person's behavior can often tell a lot about their perceptions.

To understand the reasons why players are addicted to certain video games and to devise measures to make them leave that, it is important to know more about the perceptions of the players regarding video game addiction (Seok and daCosta, 2012). The perceptions of each child about video game addiction seem to be influenced by their extrinsic rewards.

Player's extrinsic rewards seem to affect their perceptions about the reason for playing video games and thus might affect their intrinsic motivation (Cruz et al., 2017). A child can even become violent to get the reward.

In an afterward meta-analytic consideration, Anderson et al. (2010) fortify their position by suggesting that the proof inside their meta-analysis unequivocally proposes that presentation to violent video recreations could be a causal chance figure for increases in forceful behavior, forceful cognition, and indeed forceful influence. Violence is prevalent because it is an era of video games.

It is highlighted via various research when children enter puberty their interaction with the web increases as they start depending on the web (Lei and Wu, 2007). Most of the researchers called this era as "Web Era". Children are utilizing the web nowadays in a talented way, it has been estimated that the number of logins has been increasing day by day. Children are getting excited about making connections (outside the nation as well); this web is giving children an environment to take a breath in (Lei and Wu). Children are using the web to continue their connections with their family members living away. The use of the web has been helping children to save money as they make video calls, and message chats at a very reasonable cost (McMillan and Morrison, 2006). People claim that

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the web serves as a means of sharing various thoughts and things that are not as easy to explain when people confront each other.

Children nowadays have more tendency to adopt video games content which raises a few questions related to the gaming medium children are using. Gaming is not just negatively impacting youth rather there are some good ways too as a coin always has two sides. Most of the children who learn adjustment are high achievers because of playing video games (Yee, 2006). Video games are making them capable of understanding how they can select, strive as well, and achieve their life goal. (Cole and Griffiths, 2007) tries to challenge certain myths associated with gaming. It includes (one of the most common myths) making significant connections with other children who are associated with them via games (either nationally or internationally). It has been noted that almost 80% of the children made a new connection just because of these video games and these connections improve their well-being.

The web has been making children groom themselves and promote them in the era of the internet. It has been estimated that those children who had a good connection with the web in this era are more able to get a good amount of information and communication via the web. The Internet is serving as a means of advancement &(Lei and Wu, 2007) empowering young people to promote their geniuses through the web. It serves as a means of personality grooming by establishing and making new connections.

Video games are diminishing pro-social behaviors because of the content it has been displaying & teaching to the youth (Ferguson, 2007). The games are making children aggressive and have anger outbursts as they are not able to control; neither they know nor it is easy for them as they are indulged in a sort of 'learned helplessness'. Another researcher (Przybylski, 2009) claimed that the content of video games has significantly no relationship with the game being played.

Six studies have revealed player satisfaction in association with video games. Children who feel more competent and dependent after playing a video game decide how frequently they are going to play the game in the future (Przybylski et. Al 2009). Most of the players had a sense of fulfillment and satisfaction after playing the game they adored the most. It has been noted that those children who were involved in gaming had higher GPAs compared to those who play video games infrequently (Durkin, 2002). These games are also helping to cope with the symptoms of PTSD (Post-traumatic stress disorder).

(Holmes et. al, 2009) highlighted the fact that children who play video games usually ignore PTSD symptoms and flashbacks. These games are also playing an important role in promoting prosocial behaviors among the game community also referred to as 'conformity' (Gentile et. al, 2009). These things positively influence the behavior of children.

#### **Theoretical Framework**

This research is grounded in two key theories that help explain the concept of video game addiction among children: According to Gerbner's Cultivation Theory, there are effects of media content on perceptions, attitudes, and behaviours through long-time exposure to the content. For example, children growing up and playing violent video games such as PUBG, are likely to become aggressive and develop negative thoughts in their mindset and may consider these behaviours as normal behaviours or empowered behaviours. This theory will apply in the study because it gives details on how video games affect children's early thinking mechanism and how the resulting internal conflict will lead to acting out.

Also, the Elaboration Likelihood Model (ELM), part of the Perception Theory, can show how a gentle persuasion changes the individual's attitude, beliefs, and actions. It is through this theory, therefore, that one can comprehend how children develop new perceptions about the reality they experience continuously from playing video games. For instance, the preference of children to emulate their behaviour or activities from other cultures can be evidenced by the persuasive impact that video games have on them.

#### Methodology

This is a qualitative study that analyses children's perception of video game consumption through interviews and focused group discussions with

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questions derived from the literature review and the pilot study.

Children in Pakistan and children in Rawalpindi specifically were targeted so that the results of the study could be generalized to the rest of the Pakistani population. The participants are divided into two focus groups of boy and girl groups of 5 members each in addition to ten individual interviews. In some cases, there were parents present during the interviews to enhance the validity of the findings. A purposive sampling technique was applied to target youths of age 8 to 15 years residing in Rawalpindi. The data in this research was analyzed through a structured coding process to identify key themes and subthemes. Main themes were identified, and subthemes were further organized to provide a clear structure to the findings. Significant statements were highlighted and supported by various arguments gathered during the interviews with children, offering deeper insights into their perceptions of video game addiction and its effects on their behavior and social relationships.

#### **Analysis and Findings**

This study examines the impact of excessive gaming in the social aspect especially on the children's relations with their families. A significant number of participants admitted the fact that while engaged in the games, they have avoided listening to or have not deliberately listened to their parents, especially their mothers, or in some cases, they could not even hear their parents at all. They have learned to be very engrossed in the game and its desires rather than the needs of the family members. The children narrated scenarios in which they willingly ignored their parents while playing games rather than engaging in a conversation and listening to their families.

During the focus group discussions, children were asked to identify something they considered highly harmful, and the majority named smoking as the most dangerous thing they had encountered. These views were as a result dictated by personal family experiences by coming across a grandparent suffering from diseases caused by smoking. In turn, it unfolded many different aspects, some children particularly the younger ones regarded smoking as more fatal and related it to fatal diseases such as lung cancer. The children were then asked to contrast video gaming with smoking giving the children- a benchmark that they used by themselves to assess how dangerous they consider a video game to them to analyze their perception regarding video games. Video games were closer to being viewed as entertainment, meaning that the majority of the children found it entertaining with no ill intentions. Although some realized that there could be such a thing as excessive play on video games, they still did not consider this as lethal as smoking.

The study also revealed that children do not consider video games as having negative impacts, even though the impacts that they pose on child behavioural changes such as a reduction in family interaction may have destructive impacts on family relations. This indicates that video games change the child's perception and the definition of harm, it also affects the child's social relations and affect family bonds.

Regarding RQ2, the study focuses on the comparative analysis of children's perceptions of females and males about maturity, emphasizing the overuse of video games. The study shows that there are gender differences in how video games affect the process of personality image construction and behaviour.

Major findings were related to the effects of personality grooming; female children are found to be more willing to imitate and adapt the contents of video games in real life. This was evident when girls were interested in owning and wearing dresses like that of the game character. Some of the things that stood out from the interviews included; Many girls said they have requested their parents to buy them dresses they have seen in the games so that they could dress like the characters they admire. Such behaviour indicates that personality in video games acts as a formative model for personality among female players who are especially sensitive to the visual non-substance of the games they play. On the other hand, the male children did not seem to have the same level of interest in the replication of game content in everyday life. Few of them said that they possess toy weapons that are similar to those used in that kind of game while the rest could not care less about possessing them. This states that while boys' engagement in video games is in some way mimicry of the game, it is more in the actual actions of plaving the game.

Also, in the study fact that the amount of time that male learners spend playing video games more so through mobile apps is significantly higher than that of female learners. When it comes to gaming, boys also are known to spend more time than girls and this has been confirmed. This can be blamed on culture and gender constraints in that boys are allowed to indulge in gaming while the same is not true for girls. Boys said that they spent 7-8 hours playing video games because it gave them external stimuli in the form of coins and levels up. Girls' restrictions in their game-playing time could be attributed to chores or rules set by their parents, and this brings out how culture influences gameplaying among children.

In general, it has been seen through the research that both the boy and the girl are equally involved with video games but their experience and perception will be different. For girls, video games have an impact on personality development especially in dressing code while for boys it is the challenge and the incentives associated with games making them spend more time in the game. When studying the effects of video games on children, one has to look into the gender factor as this study illustrates.

#### Discussion

In this particular research, the focus was on the social consequences of gaming addiction with emphasis on the effects on children's family relationships. Most of the participants also agreed that they often neglect their parents, particularly the mother figure when they are busy playing video games and sometimes they do not even hear their parents. This behaviour implies that children spend more time gaming instead of sharing close time with family members, this has an eroding effect on the bonding between family. Despite the findings that children did not consider gaming as being detrimental in any way, the study shows how such factors as lack of adequate family time because of gaming were damaging. The study also revealed a marked variation between male and female participants in how video affect their personalities. Female games participants were more likely to transfer dressing skills and apparel from games to their daily lives, and this is evidence that the subject games acted as models of personality for these females. Whereas, male children were not as much concerned with

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reproducing game content, rather they were concerned with the activities and the bonus point inside the game.

Boys also spent more time gaming, where some claimed to spend 7-8 hours per day on gaming to get 'coins' and 'Levels'. Probably cultural differences may be involved as boys are likely to game more as they have no strict regulations as compared to girls who may be busy with chores or prohibited by parents from gaming. This therefore brings out the notion that gender and culture greatly influence gaming perceptions and experiences. All in all, the research presented here shows that gaming is engaging both boys and girls, and yet their experience and the impact on personality and social behavior are not identical. Girls are in more ways affected based on identity and appearance while boys are motivated by the game aspect, achievement, and rewards. These findings also stress the need to control gender in understanding video game addiction and its social and psychological consequences in the light of Pakistan culture.

#### Recommendations

Adults especially parents should make sure that they oversee what their children are involved in and ensure that they monitor children when they are playing games. Some researchers have always been in support of current regulation drafting gearing up to ban some video games in as much as he stated that such games are the ones that influence the emergence of aggressive behaviors and negative feelings among children. He is convinced that most of the video games available on the market incite youngsters to violence, maximize their tolerance in terms of violence, and ruin their character (Wei, Y., S. М., Liu, & Chen, 2022). But in this matter, apart from parents' involvement, government regulation is required. The researcher hopes that the government of the country should monitor markets so that only culturally suitable games can go all the way through the national market. If not properly controlled the youth may be over-exposed to Western values and or ideologies from video games, thus having a slow erosion of their culture. If left to their own devices and with unrestricted freedom over the material they interact with, they will embrace all the so-called 'Western' ways of life, which negatively impact the more traditional civility values children are expected to

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uphold particularly for society in Pakistan. As a measure to tackle this, the schools and communities should consider holding briefing sessions for the children, where they are informed of the effect of these games in molding their personality as well as in their physical, psychological, and mental well-being. Such sessions would in particular assist in making children more aware of the effects of gaming on their feelings, interpersonal relationships, and perspective on life. It should be expected that Eastern values and culture should be seen and propagated to encourage Easternization rather than Westernization. In turn, we can maintain cultures for our children while at the same time ensuring that children can have a proper balance of technological stuff in their lives.

#### Conclusion

This qualitative study has been conducted on children belonging to the age range of 8-15. The new era is coming with new technology and therefore the new generation is getting exposed to it. Children spend hours playing their favorite video games while compromising their sleep and other important needs. If this habit continues then it can prove to be extremely detrimental to the mental health of the children. Therefore, this study aims to find out about the perceptions and mental health of children, keeping the variable of gender as the factor for difference. Psychology researchers and Media Studies researchers can benefit from this research. Cultivation Theory, Cultural imperialism, and Perception Theory have been used in this research to align the objectives of this study with the objectives provided in the contemporary theories.

The samples were chosen through typical cases of purposive sampling. Two focus groups, each of 5 children, had been chosen. 10 independent interviews were also conducted. The comfort level and confidentiality of the participants had been ensured. The permissions were obtained from the parents of each child after briefing them about the entire process. The study has been conducted to explore the children's perceptions regarding the experience of excessive video game consumption on digital media. Furthermore, the influence of video game addiction on children's mental health has also been examined. Finally, perceptions of boys and girls regarding excessive video game consumption on digital media have been compared to get insight into how each gender perceives playing video games differently.

#### References

- Aggarwal, S., Saluja, S., Gambhir, V., Gupta, S., &Satia, S. P. S. (2020). Predicting likelihood of psychological disorders in PlayerUnknown's Battlegrounds (PUBG) players from Asian countries using supervised machine learning. *Addictive Behaviors*, 101, 106132. doi:10.1016/j.addbeh.2019.106132
- Altintas, E., Karaca, Y., Hullaert, T., &Tassi, P. (2019). Sleep quality and video game playing: Effect of intensity of video game playing and mental health. *Psychiatry Research*, 273, 487-492. https://doi.org/10.1016/j.psychres.2019.0 1.030
- Baranowski, T., Buday, R., Thompson, D., &Baranowski, J. (2008). Playing for real: video games and stories for health-related behavior change. American Journal of Preventive Medicine, 34(1), 74-82.
- Bean, A. M., Nielsen, R. K., Van Rooij, A. J., & Ferguson, C. J. (2017). Video game addiction: The push to pathologize video games. *Professional Psychology: Research and Practice*, 48(5), 378.
- Cole, H., & Griffiths, M., (2007). Social interactions in massively multiplayer online roleplaying games. Cyber Psychology and Behavior 10, 575-583.
- Crawford, G., Gosling, V., & Light, B. (2011). Online gaming in context (pp. 3-22). NewYork: Routledge.
- Cruz, C., Hanus, M. D., & Fox, J. (2017). The need to achieve: Players' perceptions and uses of extrinsic meta-game reward systems for video game consoles. *Computers in Human Behavior*, *71*, 516-524.
- DemirtaşZorbaz, S., Ulaş, Ö., &Kızıldağ, S. (2015). Relation between video game addiction and interfamily relationships on primary school students.
- Durkin, K., & Barber, B. (2002). Not so doomed: Com puter game play and positive

### ISSN: 2710-4060 | 2710-4052

adolescent development. Applied Developmental Psychology, 23, 373-392.

- Fanning, J., Porter, G., Awick, E. A., Ehlers, D. K., Roberts, S. A., Cooke, G., ... &McAuley, E. (2017). Replacing sedentary time with sleep, light, or moderate-to-vigorous physical activity: effects on selfregulation and executive functioning. *Journal of behavioral medicine*, 40(2), 332-342.
- Ferguson, C., (2007). The good, the bad, and the ugl y: A meta-analytic review of positive and negative effects of violent video games. Psychiatr Q, 78, 309-316.
- Gentile, D., Anderson, C., Yukawa, S., Ihori, N., &Saleem, M. (2009). The Effects of prosocial video games on prosocial behaviors: inter national, evidence from correlational, longitudinal, and experimental studies. Personality and Social Psychology Bulletin, 1-12.
- Gilchrist, J. D., Battista, K., Patte, K. A., Faulkner, G., Carson, V., &Leatherdale, S. T. (2021). Effects of reallocating physical activity, sedentary behaviors, and sleep on mental health in adolescents. *Mental Health and Physical Activity*, 20, 100380.
- Gunuc, S. (2015). Relationships and associations between video game and Internet addictions: Is tolerance a symptom seen in all conditions. *Computers in Human Behavior*, 49, 517-525.
- Holmes, E., James, E., Coode-Bate, T., &Deeprose, C. (2009). Can playing the computer game "Tetris" reduce the buildup of flashbacks for trauma? A proposal from cognitive science. PLoS ONE, 4, 1-6.
- Jansz, J., & Martens, L. (2005). Gaming at a LAN event: The social context of playing video games. New Media and Society, 7, 333-355.
- Keser, H., &Esgi, N. (2012). An analysis of selfperceptions of elementary school students in terms of computer game addiction. *Procedia-Social and Behavioral Sciences*, 46, 247-251.
- Khalili-Mahani, N., Smyrnova, A., &Kakinami, L. (2019). To each stress its own screen: a cross-sectional survey of the patterns of

stress and the various screen uses in relation to self-admitted screen addiction. *Journal of medical Internet research*, 21(4), e11485.

- King, D. L., Delfabbro, P. H., & Griffiths, M. D. (2010). Recent innovations in video game addiction research and theory. *Global Media Journal: Australian Edition*, 4(1), 1-13.
- Kubey, R., & Larson, R. (1990). The use and experience of the new video media among children and adolescents. Communication Research, 17, 107-130.
- LeBourgeois, M. K., Hale, L., Chang, A. M., Akacem, L. D., Montgomery-Downs, H. E., & Buxton, O. M. (2017). Digital media and sleep in childhood and adolescence. *Pediatrics*, 140(Supplement 2), S92-S96.
- Lei, L., & Wu, Y. (2007). Adolescents' paternal attachment and internet use. Cyber Psychology and Behavior, 10, 633-639.
- Mamun, M. A., & Griffiths, M. D. (2019). The Psychosocial Impact of Extreme Gaming on Indian PUBG Gamers: the Case of PUBG (PlayerUnknown's Battlegrounds). International Journal of Mental Health and Addiction. doi:10.1007/s11469-019-00102-4
- Mamun, M. A., Ullah, I., Usman, N., & Griffiths, M. D. (2020). PUBG-related suicides during the COVID-19 pandemic: Three cases from Pakistan. *Perspectives in Psychiatric Care.* doi:10.1111/ppc.12640
- McMillan, S., & Morrison, M. (2006). Coming of age with the internet: A qualitative exploration of how the internet has become an integral part of young people's lives. New Media and Society 8, 73-95.
- National Academies of Sciences, Engineering, and Medicine. (2016). Parenting Matters: Supporting Parents of Children Ages 0-8. Washington, DC: The National Academies Press. doi: 10.17226/21868.
- Nielsen, R. K., &Kardefelt-Winther, D. (2018). Helping parents make sense of video game addiction. In *Video Game*

Influences on Aggression, Cognition, and Attention (pp. 59-69). Springer, Cham.

- Przybylski, A., & Rigby, C. (2009). The Motivating role of violence in video games. Personality and Social Psychology Bulletin, 35(2), 243-259.
- Rosser Jr., J., Lynch, P., Cuddihy, L., Gentile, D., &Klonsky, J. (2007). The Impact of video games on training surgeons in the 21st century. Arch Surg, 142, 181-186.
- Seok, S., &DaCosta, B. (2012). The world's most intense online gaming culture: Addiction and high-engagement prevalence rates among South Korean adolescents and young adults. *Computers in human behavior*, 28(6), 2143-2151
- Stavrou, P. (2018) Addiction to Video Games: A Case Study on the Effectiveness of Psychodynamic Psychotherapy on a Teenage Addict Struggling with Low Self-Esteem and Aggression Issues. *Psychology*, **9**, 2436-2456. doi: 10.4236/psych.2018.910140.
- Štefan, L., Horvatin, M., &Baić, M. (2019). Are sedentary behaviors associated with sleep duration? A cross-sectional case from Croatia. International journal of environmental research and public health, 16(2), 200.
- Weinstein, A. M. (2010). Computer and video game addiction—a comparison between game users and non-game users. *The American journal of drug and alcohol abuse*, 36(5), 268-276.
- Wei, M., Liu, Y., & Chen, S. (2022). Violent Video Game Exposure and Problem Behaviors among Children and Adolescents: The Mediating Role of Deviant Peer Affiliation for Gender and Grade Differences. *International journal of environmental research and public health*, 19(22), 15400. https://doi.org/10.3390/ijerph192215400
- Zamani, E., Chashmi, M., & Hedayati, N. (2009). Effect of addiction to computer games on physical and mental health of female and male students of guidance school in city of isfahan. *Addiction & health*, 1(2), 98– 104.

