

Children Playing Video Games During COVID-19 in Spain

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ABSTRACT

As has been verified, those who spend more time playing video games are children and adolescents. The lockdown caused by the COVID-19 pandemic increased the prolonged use of video games in this population. In this context it is possible to observe some risks of this use, one of them the symptoms of gaming disorder (GD). The objective of this study is to analyze video game habits and the possible impacts on children - aged between 7 and 10 years - gaming for more than 4 hours daily during confinement - the lockdown was announced on March 14, 2020 and lasted approximately three months.- in Spain. Likewise, this study examines how families have acted after the detection of possible dependencies. According to the (10) families interviewed, the children have modified their routines, changed their mood, their symbolic games and –some of them– developed a clear dependency on the screen(s). Faced with this reality, the majority of the families created various strategies in order to modify these new habits and reduce the exposition to video games; others they decided to contact professionals to receive some assistance with their children’s behavior. The lack of knowledge of families about the use of video games is observed in three specific areas: first, knowing if it is an appropriate game for their child’s age; second, set time limits; finally in being able to evaluate the dependency to the game. Based on the results, the study of video games in children requires the development of broader, complex and coherent approaches that focuses on the intra-family experience and parents’ skills to be with their children in this context. In addition, approaches that include spaces for the effective education of families about video games, including workshops and tools represent a clear need that could be addressed from schools or related institutions.

Keywords: Video games; Spain; Children; Lockdown; Habits; Parents.

INTRODUCTION

There is evidence related to certain socio-family characteristics, as a factor that affects the problematic use of video games (VDG) in boys, girls and young people. Specifically, prospective studies such as that by Pentz et al. (2011) show that a low socioeconomic level may be associated with greater use of VDG. Even in those households where both parents work or there is weak supervision, a predisposition to problematic use of VDG in children is observed (Abedini et al., 2012). This is also related to the availability of access and indiscriminate use of technological devices, when these are inserted in the child's daily environments (Atkin et al., 2013).

Different scholars pointed out that videogames are a set of simulations by way of pictures, sounds and texts which set up a task for the user to perform (Traudt, 2005; McLean, & Griffiths,

2013; Unsworth et al., 2015). Since its introduction, computer games have attracted children of all ages and have become a popular leisure for them (Anderson & Warburton, 2012). Nowadays games represent an integral part of today's electronic culture (Baran, 2010; McLean, & Griffiths, 2013). The advent of the Internet and mobile phone has given them much impetus: contents which features are continuously updated, and with mobile phones videogames now offer the user much flexibility and mobility – a feature that have greatly enhanced their popularity (Anderson & Warburton, 2012). The progressive incorporation of ICT (García-Álvarez, 2013; Sandoval-Obando, 2018) and, particularly, the intrusion of video games (VDG), has been exponential in recent years, where there is an increase in the number of hours that children pass in front of the screens in parallel with a high degree of ignorance of families and the educational community about the scope and impacts of these online games on children's health and subjectivities (Buiza-Aguado et al., 2017; Newzoo, 2018).

The Interactive Software Federation of Europe (ISFE: 2014) study indicates that 85% of minors between 6 and 15 years of age play video games (VDG) continuously in Europe, which shows that the majority of minors plays video games regularly. In turn, the survey of Subjective Well-being in Students, carried out by the Organization for Economic Co-operation and Development (OECD, 2017) to second-grade students from 72 countries, reveals that 70% of boys and 27% of the girls mention regular use of video games after completing their school day. This everyday use is analyzed by Guerra et al. (2019) who point out that the age of initiation of internet use is a relevant factor, since the earlier its use, the greater the frequency of its use in later ages (García, Portillo, Romo and Benito, 2008), which amplifies the emergence of risky behaviors in the future (Pérez, Hincapié and Arias-Cardona, 2018).

According to Lubrano et al., the 27% players are between 4 and 17 years of playing every day in sessions lasting at least 60 min. A videogame session longer than 24 minutes sets off a hypertensive response in nearly 42% of children, with blood pressure levels deemed pathological by the international classifications and potentially dangerous for the child's health (Lubrano, 2018,411-412).

While in Spain, as in other countries, before the pandemic, children were already playing video games, and they alternated the screens with outdoor games. However, due to the confinement situation during the pandemic, the use of video games became a normalized leisure activity (Shanley, 2020). VDG that can be divided into passive or classic –in so far as they involve the use of visual-motor coordination to interact with the electronic device, requiring a low degree of motor activity– and active –applications that allow the player to use partially or totally their body from the stimuli that appear on a screen– (Moncada and Chacón, 2012). In this type of active video game, the success or failure of the player depends on the dexterity and movement in front of a camera or electronic device sensitive to movements (Foley & Maddison, 2010).

Playing video games is a leisure activity in Spain, and it has increased during the pandemic. For example, “Among Us” has been the most downloaded game in the world during 2020, with more than 50 million downloads (Queiruga, 2020). As with other games, the experience proposed by this video game invites the player to enter a virtual world in which deep-rooted fears are reflected and interactions in society are questioned. In “Among-us”, the kids are on a mission to discover the impostor and survive, starting with the following challenge: “You and your fellow astronauts are stuck in a rut and now you must either escape a dying space station or

restore it to full working order. However, one of you is different from the others. While the rest may want to save the station as quickly as possible, one of you (up to three players) has another intention: to kill everyone trying to restore order" (entre-us.io, ND). Although the children know that the station is not real, many behave as if it exists in reality and experience the feeling of facing an impostor and the need to escape to survive.

According to O'Connor and Joffe (2013), there is explicit proof that children's brains are affected by early experiences that last into adulthood. In addition, media, including video games, affect children's development more than that of adults, because children have less-developed knowledge structures and existing encoded cognitions (Saleem et al., 2012). Also, while children are aware that the video games they play are not real, they still engage in non-real behaviors (Johnson & Christie, 2009). The problematic use of VDGs can become a potentially harmful activity for the mental health of children and young people (Chóliz and Marco, 2011), which is evidenced in a sample of young Spanish people, with 621 participants, of which 52.7% were men and 47.3% were women. The authors found that 12 to 16-year-olds play more days per week than 10 to 11-year-olds, and they spend much more time playing console games. In turn, a cross-sectional study of American schoolchildren (n = 4691 children in grades 4 and 5) found a relationship between periods of more than three hours a day of television exposure, problematic use of VDGs, and drug use alcohol and hallucinogens (Armstrong, Bush & Jones, 2010). Likewise, it has been observed that VDG disorder is associated with certain dysfunctional personality traits, such as impulsivity (Gentile et al., 2011), search for sensation (Mehroof and Griffiths, 2010), low self-esteem (Lemmens et al., 2011) and neuroticism (Braun et al., 2016).

Gentile, et al. (2014), who found that low social competence, decreased empathy and poor emotional regulation operate as risk factors for problematic VDG use, while depression, anxiety, social phobia and poor academic performance emerge as their consequences in boys, girls and young people and this leads us to wonder what factors PEGI analyzes to classify the use of video games in Europe and based on the results of this study evaluate a new protocol of analysis.

The use of VDG for 8-10 hours or more per day, accumulating 30 hours or more per week, would be the predominant characteristic in subjects who develop the disorder due to VDG, with a higher prevalence in men within an age range between 12 and 20 years, even when the incidence of age in the prevalence of this disorder remains a controversial aspect (APA, 2013; Paulus et al., 2018). Therefore, addictive behavior would be a compulsive behavior and potentially harmful to physical and mental health, which would give way to the emergence of a psychological withdrawal syndrome, in response to the prohibition of this behavior (Ferguson et al., 2010; Kaptsis et al., 2016). This withdrawal has manifested itself in several children after the return to the "new normal" post-pandemic. In this sense, some of the families consulted in the exploratory interviews state that their children "did not want to go to the park, they just wanted to be at home and play online. It was like living in hell" (F 5).

At the same time and following the suggestions of studies such as that of Echeburúa and De Corral (2010), it must be taken into account that the addictive pattern of this behavior is not due so much to the frequency with which the game is played, but to the type of relationship established with and the negative impact it causes in different areas of life (Davis, 2001). It is this relationship that children establish with the video game that we are interested in analyzing

in order to understand its impact and move towards concrete actions. In this sense, Fuster et al. (2012) propose a model of four motivations linked to the problematic use of VDG in young people: (a) socialization (linkage mechanism to various peer groups), (b) exploration (interest in deepening the central argument proposed by VDG), (c) achievement (desire to achieve a higher degree of validation, recognition and leadership in front of other players), and (d) dissociation (use of the VDG as a source of escape from reality). In this way, the authors identified a certain theoretical relationship between socialization and exploration with the use of adapted VDG, as opposed to the connection between achievement and dissociation as a conditioning factor for the emergence and development of a problematic or maladaptive game. This internationality that videogames have been gaining also responds to the exponential growth of their market: a multi-billion dollar industry that now far surpasses Hollywood in revenues (Granic et al., 2014). According to a recent report by Newzoo, the global gaming market will generate \$159.3 billion in revenue in 2020. That would be 9.3 percent year-over-year growth. What's more, Newzoo (2018) projects the industry to surpass \$200 billion in revenue in 2023. Also, the biggest growth is in mobile gaming, with many internet cafes closed during the pandemic and the accessibility to mobile devices growing. According to the study, mobile gaming will account for \$77.2 billion in revenue in 2020, an increase of 13.3 percent from 2019 (Hallak, 2020).

That is why game developers, around the world, are competing to find ways to attract and keep gamers to their products with video games that have the ability to provide pleasurable experiences, motivating their players to be entertaining and immediately rewarding them (Ryan et al., 2006).

The exposure of children to the so-called digital revolution (Dutta, Geiger & Lanvin, 2015) brings with it emerging problems in the field of mental health that deserve to be explored. Among them, the uncontrolled use of video games (VDG), described as an addictive behavior of clinical relevance, still controversial, after its inclusion in the DSM-V (American Psychiatric Association, 2013) and ICD-11 (WHO, 2018). In this context, there are studies that relate the problematic use of technological devices with certain negative factors for people's health, such as the deterioration of interpersonal relationships, sleep and eating disorders (González-Bueso et al., 2018), impulsivity (Gentile et al., 2011), the development of low self-esteem (Lemmens, et al., 2011), neuroticism (Braun et al., 2016), ADHD (Vukosavljevic- Gvozden et al., 2015), anxiety and depression (Bonnaire and Baptista, 2019).

Extensive research shows that WHO has been collecting clinical information on drug addiction behavior. Based on this systematization and the still controversial debate (Aarseth et al., 2017; Lau et al., 2018), video game disorder (gaming disorder) is included in the ICD-11 (WHO, 2018), and it is described as a continuous or recurring gambling pattern, in which three conditions are met: (a) lack of control of gambling behavior regarding the start, frequency, intensity, duration and context in which it is performed; (b) prioritizing the game over any other type of activity; and (c) maintenance and escalation of the behavior, despite being aware of the negative consequences they cause. This constellation of clinical criteria must be evidenced for at least a 12-month period. Despite this classification, the WHO ambassador for global strategy Ray Chambers through his Twitter account published:

“We’re at a crucial moment in defining outcomes of this pandemic. Games industry companies have a global audience - we encourage all to #PlayApartTogether. More physical distancing + other measures will help to flatten the curve + save lives.” (Flavius, 2020).

It is a complex issue whose interpretation and analysis of video games and population must be carried out precisely since there are many factors that have an impact on the analysis that must be taken into account. In this line, Aarseth et al. (2017) and Lau et al. (2018) point out that the terms Internet addiction and pathological use of the Internet have been used diffusely, referring to all kinds of activities in which information technologies are used. The video game disorder and communication (ICT), among them, the VDG. Therefore, it is difficult to clearly distinguish the type of device used, the environment in which its use takes place (King and Delfabbro, 2013; Starcevic and Aboujaoude, 2017), as well as differences by sex (González-Bueso et al., 2018).

Faced with this situation, a self-regulation initiative arises in Europe, an age classification system called Pan European Game Information (PEGI). Its aim is to inform and help European parents to learn about computer games and the suggested ages for their game. This initiative promoted by the Interactive Software Federation of Europe (ISFE) and administered by the Netherlands Institute for Classification of audiovisual Media (NICAM), in addition to having the support of the main console manufacturers, Sony, Microsoft and Nintendo, as well as by interactive game publishers and developers across Europe. It came into force in 2003 and the great success was due to the fact that it was supported by more than thirty European countries (Austria, Denmark, Hungary, Latvia, Norway, Slovenia, Belgium, Estonia, Iceland, Lithuania, Poland, Spain, Bulgaria, Finland, Ireland, Luxembourg, Portugal, Sweden, Cyprus, France, Israel, Malta, Romania, Switzerland, the Czech Republic, Greece, Italy, the Netherlands, the Slovak Republic and the United Kingdom).

The PEGI code shows on the part of the member countries a clear interest in protecting minors and helping parents to know what games they should buy for their minors. In the specific case of Spain, the PEGI code has been disseminated by the Spanish Association of Videogames Spain (ADESE) and by the Ministry of Health and Consumption, as well as, by the Ombudsman for Children.

LITERATURE REVIEW

Based on the reviewed studies, it is possible to state that some videogames content as has been found objectionable and potentially harmful due to its glamourisation of violence as “Grand Theft Auto V” (Kühn, Kugler, Schmalen, et al. 2019) and sex as “Mass Effect” (Borges-Lima, 2017).

The variety of games available is so diverse that some studies have tended to justify this fear (Dietz, 2009; Traudt, 2005) while others have focused on the addictive effect of videogames (Nash, 2015). Exposure to videogames by young people, especially children, has provoked some uneasiness given the possible harm this could entail on their social development (Longe et al., 2007; Okoye, 2011; Russell, 2016). Globally, it has been shown that while video games have become a popular form of entertainment, concern has been raised about their possible effect on users as suggested in different researches (Traudt, 2005; Peters, 2010; Dietz, 2009; Anderson, 2002; Bartholow & Anderson, 2002).

Authors such as Quwaider (2019) state that "The majority of studies conclude that there is a relationship between the video games and the player's behavior". In these studies, the researchers conclude that the video games have an impact on the player personality, like emotions, reflexes, behaviors, motivations, needs, thinking way and approach internal and external situations.

"(...) Finally, from our point of view from all the existing research on this field, the impact of the video games on the behavior and emotions of the players cannot be ignored. In addition, most of the research that denied the existence of the impact of video games relies on a small number of participants or weak evidence" (Quwaider et al., 2019, 581).

According to Nordby and Pfuhl "The scientific literature is scarce in regards to non-pathological video-gamers, their procrastination and the effect of related reward mechanism in games. It is possible that games in combination with a preference for immediate rewards can create the "perfect storm", with excessive gaming and procrastination as a result" (Nordby, Pfuhl, 2018, 2). Along these lines, Holtz and Appel (2011) specify that when VDG involves the interpretation of a character, which is called role-playing, it becomes a predictor of isolation and anxiety in the youngest, as confirmed by Van Patten, Weinstock and McGrath (2018); which reveals the complexities associated with the use of these technologies in the current digital revolution.

There is a diversity of instruments, their psychometric validity and application in different populations and contexts, is still a pending issue (Paulus et al., 2018). On the other hand, King & Delfabro, (2013) mention certain characteristic behavior patterns in VDG disorder, among which abstinence stands out when it is not possible to play online, As presented in this study, the presence and mediation of parents represents an important aspect in studies of video games in childhood. At an experimental level, the activation of specific brain circuits, the mesocorticolimbic system, has been observed in young people with VDG disorder, similar to that detected in people with drug addiction (Hoeft et al., 2008). However, the inclusion of this disorder in DSM-V and ICD-11 still generates dissonance in some sectors of the social health world. In this regard, Aarseth et al. (2017) state that their integration could have adverse implications in the population, increasing the risk of overdiagnosis, as well as cases of false positives in boys and girls. Despite this debate, authors such as Stockdale and Coyne, 2018 agree on the need for future research to specify the course and evolution of addictive behavior to VDGs, revealing the negative consequences they cause in the subject's health.

As presented in this study, the presence and mediation of parents represents an important aspect in studies of video games in childhood. In this sense, different studies have shown that parental mediation strategies (by way of guidance and regulation of child media use) has proved effective in not only mitigating the negative impact of media on children's social development, but has been useful in harnessing its positive impact (Clarks, 2011; Padilla-Walker & Coyne, 2010; Austin et al., 2009).

In relation to international regulations for the protection of children against the impact of VDG, the research by Díez Sánchez et al., (2013) studied the degree of knowledge of parents in relation to the PEGI code and whether they were aware of the contents and ages when acquiring a video game for their minors. The results show the ineffectiveness of the PEGI code in its target audience, parents.

According to Martínez-Pastor “The results indicated that only 9.9% knew about the existence of the PEGI code compared to 90% who did not know it. Likewise, the symbols that indicate the packaging of video games are not understood” (2015, 85). They only understood the symbol of aggressiveness (with the fist) and that of sex (by the logos of the sexes). In summary, there are several investigations (Chóliz and Marco, 2011; Lubrano et al., 2018; Kühn, Kugler, Schmalen, et al. 2019) that point out that it is necessary to deepen studies related to the effects of video games on health of children and at the same time, and in parallel, the creation of new control / classification protocols for video games is urgently needed so that they have a clear social and preventive scope for families, tutors and educational centers. The latter is a secondary aspect on which this research will focus, hoping to provide new guidelines for the creation of preventive protocols based on its preliminary results.

METHODS AND MATERIALS

Our study is based on consulting families whose children play massively multiplayer online role-playing games (MMORPGs). Massively Multiplayer refers to the massive participation of players that can reach millions of users per game, while Role Playing refers to the fact that the player assumes the role of a fantasy avatar in the game; the player is responsible for the acts of his avatar and interacts with other players in the game (VanFossen et al., 2008; Yee, 2006 in Sourmelis et al., 2017, 42).

Researches on Massively Multiplayer Online Role-Playing Games (MMORPGs) by Anderson (2010) and recently by Sourmelis et al., (2017) address current challenges, the latter concluding that “a strong body of evidence suggests that MMORPGs they are spaces in which a variety of 21st century skills can be nurtured. However, the majority of MMORPG research is focused on investigating communication skill (22% of skills tested), while creativity and innovation, as well as problem solving and information literacy, are largely unexplored in this context (2017, 41).

According to Carbonell (2014), on these platforms the player faces different characters and levels of difficulty, having to execute various missions, according to the central argument of the VDG, hence its open nature. During the development of the game, the participants acquire prizes and incentives, which increase interest and dependence. MMORPGs meet operating conditions and criteria that validate and normalize dysfunctional behavior. For the case of our analysis we have taken into account the following aspects: (a) absolute impunity for the actions carried out in the game; (b) validation and normalization of risk behaviors; (c) all behaviors, whether good or bad, have a reward, which makes little sense in today's real life (Di Blasi et al., 2019).

While Di Blasi focuses on behaviors during play, other researchers have also studied the kinds of skills needed to succeed in the ever changing digital world (Spiers, 2008; Voogt & Roblin, 2010), whilst different research groups have developed different frameworks to describe this skillset (eg EU - Eurlex.europa.eu, 2014; USA - The Partnership for Twenty-first century skills - p21.org, 2016; Assessment & Teaching of 21st Century Skills - atc21s.org, KSAVE 21st Century Skills (Binkley et al. 2012).

This study seeks to know how it was for children to play video games during the pandemic, delving into various subjective aspects to better understand their possible impacts: how they

became interested in playing; whether or not the game preferences have changed; if he symbolically reproduces the strategies of the game in his life (behavior) or if his interest in the game has led him to stop doing other things (dependence). For this analysis, the theory of social cognitive learning (Saleem et. al 2012) will be taken as a reference, which establishes that interaction with scripts, such as video games, tends to have long-term effects on children. These effects are represented by the development of changes in precognitive, and cognitive constructs (perceptions and beliefs), cognitive emotional constructs (attitudes and stereotypes), and affective traits such as conditioned emotional responses, empathy, and trait hostility. Saleem et. al (2012), discuss that video games with prosocial content increase helpful behavior and decrease hurtful behaviors, while video games with violent content increase hurtful behavior and decrease helpful behaviors.

In this qualitative study, the main objective was to know the impact of video game consumption has on children and their families. For this, the population sample was based on the following criteria: families with children between the ages of 7 and 10, who during the pandemic had exposure to video games for more than four hours a day (including weekends) and who at that time resided in Spain. The information related to this population was collected through unstructured interviews (Rodríguez et al., 1996; Vallés, 1997; Johnson, Christensen, 2004) conducted with 10 families (consulting mothers, fathers, as well as tutors).

In addition, the unstructured interview method was selected because of its compatibility with the research topic. The use of open-ended questions allows them to be modified according to the specifics of each interview, which allows the interviews to resemble a natural conversation while the interviewer retains his guiding function (McLeod, 2014).

The data collected in the interviews were analyzed using thematic analysis (Lincoln & Guba, 1985; Denzin, 1989; Patton, 2002; Hsieh & Shannon, 2005; Schilling, 2006; Ritchie, et al., 2013), an inductive qualitative method with an exploratory, descriptive orientation and based on the content expressed by the interviewees. This method was used to build the analysis indicators and connect these patterns with concepts and categories observed in the reviewed literature. The thematic analysis was also useful to find and compare thematic axes that are observed as transversal in the different interviews.

Following the approach of Braun and Clarke (2006, 2019), the data analysis process described in this article included the following steps: familiarization with the data; generation of initial codes, thematic search, revision of themes, definition and name of the themes, preparation of reports. Following the data analysis manuals, the first step in familiarizing ourselves with the data involved conducting and transcribing the interviews by the researchers themselves. The next steps of the analysis integrate both inductive and deductive coding (Crabtree & Miller, 1999). For this we have turned to Joffe and Boyatzis adopting a theory-based, deductive coding approach in which someone else's theoretical framework is applied to develop the codebook as long as a good thematic code describes the bulk of the data (Joffe, 2012, 226), while capturing the qualitative richness of the phenomenon (Boyatzis, 1998, 31). In this way, according to Schamber (2000), the combination of inductive and deductive coding reflects a balanced and complete view of the data, instead of relying solely on the frequency of codes decontextualized from their context.

After familiarization with the data and developing the codes, the next step was to search for themes, as it is understood that by identifying broader patterns of shared meaning in the data set, the coded data can be developed into a topic to illuminate the research question (Charmaz, 2001). Good themes have to work together and form a coherent analytic story, which is why some codes and themes were discarded at this stage (Clarke & Braun, 2014). This step ends with a set of themes and the positioning of the researchers in relation to the themes. At this point, and following Clarke & Braun (2014), the themes are reviewed, which implies two levels of verification, on the one hand, it is about establishing whether the themes combine the essence of the coded data in relation to the research question; on the other hand, it is verified if the selected themes worked for the entire set of data. Once verified, each topic is defined and named and the final phase is reached: preparation of the report. At this time, in addition to selecting excerpts from the stories of the interviewees, they are interpreted by the research team. In this sense, and following Tuckett (2005), the literature consulted is reviewed again, in order to compare the evidence examined and report the results. The final text is the product of a prolonged immersion in the data, and the reflection of the research team (Braun & Clarke, 2019).

For the purposes of this presentation and in order to maintain the anonymity of the families consulted in this study, we will use the following coding to account for their experiences: Family 1 (F1), Family 2 (F2) and the same with the rest of the families.

DISCUSSION

Based on the studies reviewed and the analysis of the interviews, it is possible to find a certain tension in the role assumed by parents, health professionals and teachers in the identification of those warning signs that boys and girls show certain difficulties as a consequence of the indiscriminate and uncontrolled use of VDG during the pandemic. Difficulties that are still difficult to face, due to the lack of protocols and regulations at the clinical and educational level on this phenomenon. In relation to the above, authors such as Rojas (2008) as well as Aarseth et al. (2017), pointed out the need to: (a) regulate the use of these devices in proportion to the chronological stage in which the individual is; and (b) from schools to promote safe and responsible use of the Internet, to inform families about the games and their content observed by children to contribute to the proper regulation and monitoring of possible impacts on children. In this sense and according to the experience reported by Family 1 (F1):

“our son was 7 years old and he told us that his friends at school had downloaded that game, that he was the only one who didn't have it. When the class started in Zoom, it is true that the boys talked about some games because they played online. So, we trust that the rest of the families knew about the subject, we downloaded it. We didn't do a search about what it was like, what was going on...it was a mistake.”

On the other hand, Family 2 (F2) shares that their experience with VDG was progressive. Their daughter began to play and according to the parents:

“(…) we saw her excited, even motivated. However, it got out of hand. Suddenly all the drawings she made were of the video game character; if she talked to one of her friends it was about that game.”(Personal communication, F2).

For the F3 family, it was through the older brother, a 14-year-old teenager, that video games took over the family routine during the pandemic. For the teenager, this was a way to get

together and play with his friends and this led our 9-year-old son to want to play as many hours as his brother.

“It was more difficult to reduce the hours of screen time for the little one than for the teenager. After the lockdown he didn't even want to go back to his soccer classes, he preferred to stay playing. After trying to control the situation without success, we decided to make an appointment with a psychologist. Because if he didn't play he asked to see a Youtuber talking about the game. He did not show interest in playing with *other toys or classis table games; for him* that was the worst plan. It was hard, but we have learned something.” (Personal communication, F3).

On the other hand, F4 comments that her 8-year-old son used to play before the pandemic, but during the lockdown period, once he finished doing his homework, he would go online and start playing without a notion of time.

“I couldn't tell you how it happened, but one day we downloaded the game. We were connected to our jobs from our laptops, so we saw him busy and that allowed us to continue working. When the pandemic ended, we went had dinner at a friend's house and they asked us if we were aware of the games our son was playing because they had noticed him more aggressive, or rather, his vocabulary had changed.... Phrases like “You are the impostor, I do not trust you!...I will kill you” So we decided to take this game off. Of course he has other games and now before downloading a new game we inform ourselves about the topic, characters...Basically we take into consideration how aggressive can be the game and how easy a child can be influenced” (Personal communication, F4).

What is stated by F4 is reflected in various studies, we highlight the one by Saleem et al., (2012), the authors discuss that video games with prosocial content increase helpful behavior and decrease hurtful behaviors, while video games with violent content increase hurtful behavior and decrease helpful behaviors. Also, Zhang et al., (2021) in their study confirms how exposing children to a violent video game increased aggressive cognition and aggressive behavior.

In the case of the F5, parents of two children (7 and 9 years old) remember the social pressure: “Everyone has it, everyone has downloaded it, that's what our children told us... We seemed like the worst parents in the world; and in a context of a pandemic, where we couldn't offer them many other things either being locked up in an apartment in the middle of the city” (Personal communication, F5).

According to family F5 their children played 4, or a maximum of 5 hours during a weekend; in their case, the alerts began to appear, noting that:

“(...) we noticed that this was not good for them when the youngest began to have nightmares and they were related to one of the games. He would scream or wake up crying and go to our bed and tell us that he was locked up in that ship and that he couldn't get out and someone will kill him (...). We decided to change strategy. It was not easy at all because the pandemic continued. We downloaded other (friendly) games, it forced us to study a little about what certain games are about. We also adopted a kitten from one of our neighbors, this caring for a pet made them pay attention to something else: what do they cats eat? What about their tail

position?, etc. Let's say that adopting a pet was like a therapy that helped us to change the dynamics at home and the type of games" (Personal communication, F5).

In the case of the F6, the use of video games in their 8-year-old son took them by surprise: "Our son played, of course, but a maximum of two hours a day. We thought we had it under control. But during the early morning my wife went to the bathroom and saw a light in our son's room. We discovered that he played at night, secretly. We detected that he could spend up to 3 hours covered by the sheets to cover the light of his tablet!" (Personal communication, F6). For family 6, the best way to address the issue was to consult a professional.

For the F7, the use of VDG during the lockdown had certain consequences, they noticed the changes: "our 9-year-old daughter counted the minutes to be able to connect and play. Normal, with everything that was going on. When we asked her to disconnect her answer was: 'not now that I'm winning!, wait a bit!' And so we stretched out time. On many occasions she cried, she got frustrated when we took the tablet away from her. Everything was exceptional. Later, when she went back to her activities, the videogames hours were reduced, we did not observe any dependency" "(Personal communication, F7).

The F8, like the F6, discovered that his 10-year-old son was connected at dawn: "Our son ended up confessing to us that he set the alarm on his watch to vibrate to get up at 3 in the morning and play. We get very angry with him. We talked to the educational psychologist at his school and he gave us some tips for better follow-up. We hadn't realized how reliant it was on games." (Personal communication, F8).

The F9 reminds the changes in schedules and routines:

"Our daughter used to play in the afternoons, she used to connect by 3pm. I noticed that when it was snack time she wasn't even interested in eating. She wanted to keep playing. When we proposed to do a puzzle or another game, she refused. We noticed that she started to get closer to those girls who were also playing because they talked about their avatars and the game in general. Reducing her VDG and connection hours was a problem. She cried, she locked herself in her room. Sometimes we disconnected the modem at home. I can't say exactly when she became dependent, it was in a short time, and taking her away from it was much longer, arduous. I think we succeeded, we looked for recommendations on the web, we talked to other parents" (Personal communication, F9).

The case of the F10 also denotes family interest and concern:

"When our son downloaded that famous game, what I didn't like was the background music. It looked like something out of a horror movie. But if all his friends had it, it was because his parents agreed, I thought. I looked at the information regarding the game, the age label of the European Union, and it was validated for my son's age, at that time he was 8 years old" (Personal communication, F10).

Family 10 contacted other families from the school to find out if they agreed with this game and its vocabulary: "To our surprise, very few family members knew what the game was about. Neither had heard the music, nor the role of the characters. This confirmed for me that the fact that 'everyone has it' does not mean that it is so good" (Personal communication, F10).

In accordance with what was stated by Martínez-Pastor (2015) about the great ignorance of some families about the PEGI labels, it is observed that the F3 and F10 resorted to the label that specifies from what age the game is suitable, since they noticed traits that worried them, not before. "This indicates that the functionality of this PEGI code does not reach parents correctly and that its symbology is unclear and adapted to users. This collides head-on with the attempts of the Administrations and the industry to make this market more transparent and protect minors" (Martínez-Pastor 2015, 85).

CONCLUSIONS

Reviewing the experiences reported by the families that participated in this study and taking into account the literature consulted, we can affirm that we are facing a changing panorama, in which the experience of boys and girls through the use of video games is transforming not only the way in which they interact within the mediated situations that these games propose, but also, in many cases, this immersion can sometimes cause them difficulties in adapting to the environment, connecting with other points of interest. Attitudes such as increased aggressiveness, loss of boundaries, low ability to disconnect, non-acceptance of unmediated routines, or rejection of connection with other children of their age outside of screens, mean that we must pay more attention to the behavior of this population once they start using this type of video game. In fact, the use of VDG can hide other problems, which could be affecting the subject at an interpersonal, emotional, cognitive, family or social level, as suggested by Jubany (2017) and Martín-Fernández et al. (2017).

Although the studies reviewed indicate that in these situations, it is advisable to supervise the interaction of children with these devices, parents and tutors must have or incorporate tools in order to help children be able to differentiate between the real world and the fantasy world, especially when they are in exceptional circumstances such as the pandemic and exposed to games related to: violence, risk behaviors and competition. The creation of a "support protocol" for parents should introduce general guidelines disclosed as follows: how to analyze the characters of the game, where to verify if it is recommended for the ages and personalities of their children, where to find information online about certain games, ways to agree time limits, advice to assess whether there is a progressive dependency of their children on a video game. Even if this study was conducted during the lockdown period caused by the COVID-19 pandemic, what families have expressed -such as the need to know more about video games and how to decide if it is beneficial or not for their children - continues to be a current need.

References

- Aarseth, E., Bean, A., Boonen, H., Colder, M., Coulson, M., Das, D., Van Rooij, A. (2017). Scholars' open Debate Paper on the World Health Organization ICD-11 Gaming Disorder proposal. *Journal of Behavioral Addictions*, 6(3). 267-270. doi: 10.1556/2006.5.2016.088
- Abedini et al., 2012 Impacts of mothers' occupation status and parenting styles on levels of self-control, addiction to computer games, and educational progress of adolescents. *Addiction & Health*, 4 (2012), pp. 102-110 PMID: PMC3905542
- Anderson, C. A., & Warburton, W. A. (2012). The impact of violent video games: An overview. In W. Warburton & D. Braunstein (Eds.), *Growing up fast and furious: Reviewing the impacts of violent and sexualised media on children* (pp. 56-84). The Federation Press. APA. *Diagnostic and statistical manual of mental disorders (DSM-5®)* New York: American Psychiatric Pub; 2013.

- Armstrong K. E., Bush H. M., Jones J. (2010). Television and video game viewing and its association with substance use by Kentucky elementary school students, 2006. *Public Health Rep.* 125, 433–440. doi: 10.1177/003335491012500312
- Atkin, A., Corder, K., & Van Sluijs, E. (2013). Bedroom Media, Sedentary Time and Screen-Time in Children: A Longitudinal Analysis. *International Journal of Behavioral Nutrition and Physical Activity*, 10(1), 137. doi: 10.1186/1479-5868-10-137
- Baran, S. (2010). *Introduction to mass communication and literature: Media literacy and culture*. McGraw-Hill: USA.
- Bartholow, B. D., & Anderson, C. A. (2002). Effects of violent video games on aggressive behavior: Potential sex differences. *Journal of Experimental Social Psychology*, 38(3), 283–290. <https://doi.org/10.1006/jesp.2001.1502>
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Sage.
- Braun, B. Et al. (2016) Personality and video gaming: Comparing regular gamers, non-gamers, and gaming addicts and differentiating between game genres. DOI: 10.1016/j.chb.2015.09.041
- Braun, V., Clarke, V., Hayfield, N., Terry, G. (2019). Thematic analysis. In Liamputtong, P. (Ed.), *Handbook of research methods in health social sciences* (pp. 843–860). Springer.
- Braun, V., Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Bonnaire, C., & Baptista, D. (2019). Internet Gaming Disorder in Male and Female Young Adults: The Role of Alexithymia, Depression, Anxiety and Gaming Type. *Psychiatry Research*, 272, 521–530.
- Buiza-Aguado, C., García-Calero, A., Alonso-Cánovas, A., Ortiz-Soto, P., Guerrero-Díaz, M., González-Molinier, M. y Hernández-Medrano, I. (2017). Los videojuegos: una afición con implicaciones neuropsiquiátricas. *Psicología Educativa*, 23(2), 129–136. doi: 10.1016/j.pse.2017.05.001
- Carbonell, X. (2014) La adicción a los videojuegos en el DSM-5. DOI: 10.20882/adicciones.10
- Charmaz, K. (2001). Grounded theory. In Emerson, R. M. (Ed.), *Contemporary field research: Perspectives and formulations* (2nd ed., pp. 335–352). Waveland Press.
- Clarke, V., Braun, V. (2014). Thematic analysis. In Michalos, A. C. (Ed.), *Encyclopedia of quality of life and well-being research* (pp. 6626–6628). Springer.
- Clark, L. S. (2011). Parental mediation theory for the digital age. *Communication Theory*, 21, 323–343.
- Chóliz, M., & Marco, C. (2011). Patrón de Uso y Dependencia de Videojuegos en Infancia y Adolescencia. *Anales de Psicología / Annals of Psychology*, 27(2), 418–426. Recuperado a partir de <https://revistas.um.es/analesps/article/view/123051>
- Crabtree, B. F., Miller, W. L. (1999). *Doing qualitative research* (2nd ed.). Sage. Google Scholar
- Davis, R. (2001) A cognitive-behavioral model of pathological Internet use. [https://doi.org/10.1016/S0747-5632\(00\)00041-8](https://doi.org/10.1016/S0747-5632(00)00041-8)
- Denzin, N.K. (1989). *Interpretive Interactionism*. Newbury Park, CA: Sage.
- Di Blasi, M., Giardina, A., Giordano, C., Lo Coco, G., Tosto, C., Billieux, J., & Schimmenti, A. (2019). Problematic Video Game Use as an Emotional Coping Strategy: Evidence from a Sample of MMORPG Gamers. *Journal of Behavioral Addictions*, 8(1), 25–34. doi:10.1556/2006.8.2019.02
- Dietz, T. L. (2009). An examination of violence and gender role portrayals in video games: Implications for gender socialization and aggressive behavior. *Sex Roles*, 38(5–6), 425–442.
- Díez, L., Bueno Carrera, A., Sánchez Díez, Á. (2013) The utopian protection of the PEGI code. DOI 10.5209/rev_ESMP.2013.v19.42154

Echeburúa, E., de Corral, P., (2010) Adicción a las nuevas tecnologías y a las redes sociales en jóvenes: un nuevo reto. *Adicciones*, vol. 22, núm. 2, pp. 91-95 Sociedad Científica Española de Estudios sobre el Alcohol, el Alcoholismo y las otras Toxicomanías Palma de Mallorca, España. Available at: <https://www.redalyc.org/pdf/2891/289122889001.pdf>

Ferguson, C.J., & Rueda, S. M. (2010). Violent Video Game Exposure Effects on Aggressive Behavior, Hostile Feelings, and Depression. *European Psychologist*, 15(2), 99–108

Flavius, L. (2020) World Health Organization Urging People To Play Video Games Amid Coronavirus Pandemic. *The Gamer*. Available at: <https://www.thegamer.com/world-health-organization-video-games-coronavirus/>

Foley, L., Maddison, R. (2010) “Use of Active Video Games to Increase Physical Activity in Children: A (Virtual) Reality?” DOI: 10.1123/pes.22.1.7

García, F., Portillo Berasaluce, J., Romo Uriarte, M., Benito, M. (2008) “Nativos digitales y modelos de aprendizaje” en TICs para el Aprendizaje de la Ingeniería / coord. por Martín Llamas Nistal, Carlos Vaz de Carvalho, Carlos Rueda Artunduaga, 2008, ISBN 978-84-8158-380-9, págs. 73-80

Gentile, D., Reimer, R., Nathanson, A., Walsh, D., & Eisenmann, J. (2014). Protective Effects of Parental Monitoring of Children’s Media Use: A Prospective Study. *JAMA Pediatrics*, 168(5), 479- 484. doi: 10.1001/jamapediatrics.2014.146

González-Bueso, V., Santamaría, J., Fernández, D., Merino, L., Montero, E. y Ribas, J. (2018). Association between Internet Gaming Disorder or Pathological Video-Game Use and Comorbid Psychopathology: A Comprehensive Review. *International Journal of Environmental Research Public Health*, 15(4), 668. doi: 10.3390/ijerph15040668

Granic, I., Lobel, A., & Engels, R. C. M. E. (2014). The benefits of playing video games. *American Psychologist*, 69(1), 66–78. <https://doi.org/10.1037/a0034857>

Hallak, R. (2020) Mobile games revenue will reach \$77.2 billion in 2020 published in *Field Level media*. Available at: <https://mobidictum.biz/mobile-games-revenue-will-reach-77-2-billion-in-2020/>

Hsieh, H.-F., & Shannon, S.E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288.

Joffe, H. (2012). Chapter 15: Thematic analysis. In Harper, D., Thompson, A. R. (Eds.), *Qualitative research methods in mental health and psychotherapy: A guide for students and practitioners* (pp. 209–223). John Wiley & Sons.

Johnson, R. B., Christensen, L.B. (2004) *Educational research: Qualitative, quantitative, and mixed approaches*. Boston: Allyn and Bacon.

Kaptsis, D., King, D. L., Delfabbro, P. H., & Gradisar, M. (2016). Withdrawal symptoms in internet gaming disorder: A systematic review. *Clinical psychology review*, 43, 58–66. <https://doi.org/10.1016/j.cpr.2015.11.006>

King D.L., Delfabbro P.H., Billieux, J., Potenza, M.N. Problematic online gaming and the COVID-19 pandemic. *J Behav Addict*. 2020;9:184–186. doi: 10.1556/2006.2020.00016.

Kühn, S., Kugler, D., Schmalen, K. (2019) Does playing violent video games cause aggression? A longitudinal intervention study. *Mol Psychiatry* 24, 1220–1234 . <https://doi.org/10.1038/s41380-018-0031-7>

Lau, C., Stewart, S., Sarmiento, C., Saklofske, D., & Tremblay, P. (2018). Who Is at Risk for Problematic Video Gaming? Risk Factors in Problematic Video Gaming in Clinically Referred Canadian Children and Adolescents. *Multimodal Technologies and Interaction*, 2(2), 19. doi: 10.3390/mti2020019

Ledo, A., De la Gándara, J., García, M. y Gordo, R. (2016). Videojuegos y salud mental de la adicción a la rehabilitación. *Cuadernos de Medicina Psicosomática y Psiquiatría de Enlace* (117), 72-83.

Lemmens, J, Valkenburg, P., Peter, J. (2011) Psychosocial causes and consequences of pathological gaming. DOI: 10.1016/j.chb.2010.07.015

- Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic Inquiry*. Beverly Hills, CA: Sage Publications.
- Lubrano, R., Spiga, S., Falsaperla, R., Elli, M. (2018) Videogames unmask hypertension in children. *Minerva Pediatrica*. 2018;70:411-2. DOI: 10.23736/S0026-4946.17.04814-9
- Martínez-Pastor, E. (2015) La protección de la juventud y la infancia en el ámbito de los videojuegos contenidos, edades y publicidad. In *Videojuegos y sociedad digital: nuevas realidades de estudio para la percepción del pasado histórico / César San Nicolás Romera (comp.), Miguel Angel Nicolás Ojeda (comp.)*, 2015, ISBN 978-987-544-670-0, págs. 81-92
- McLean, L., & Griffiths, M. (2013). The psychological effects of videogames on young people: A review. *Aloma: Revista de Psicologia, Ciències de l'Educació i de l'Esport*, 31(1), 119-133.
- McLeod, S. (2014). *The Interview Research Method*. SimplyPsychology. 2014. Retrieved October 20, 2021 from: <https://www.simplypsychology.org/>
- Mehroof, M., & Griffiths, M. (2010). Online Gaming Addiction: The Role of Sensation Seeking, Self-Control, Neuroticism, Aggression, State Anxiety, and Trait Anxiety. *CyberPsychol Behavior Social Network*, 13(3), 313-316. doi:10.1089/cpb.2009.0229
- Miles, M., & Huberman, A.M. (1994). *Qualitative Data Analysis*. Thousand Oaks, CA: Sage Publications.
- Moncada, J., & Chacón, Y. (2012) El efecto de los videojuegos en variables sociales, psicológicas y fisiológicas en niños y adolescentes. ISSN 1579-1726. Available at: <https://dialnet.unirioja.es/servlet/articulo?codigo=3827415>
- Newzoo, (2018) *Newzoo Global Games Market Report 2018 | Light Version*. Available at: <https://newzoo.com/insights/trend-reports/newzoo-global-games-market-report-2018-light-version>
- Nordby, K., Løkken, R.A. & Pfuhl, G. (2019) Playing a video game is more than mere procrastination. *BMC Psychol* 7, 33 <https://doi.org/10.1186/s40359-019-0309-9>
- Nordby, K., Pfuhl, G. (2018) "Procrastination among videogamers" DOI: 10.31219/osf.io/4r7eg
- O'Connor, C. & Joffe, H. (2013). Media representations of early human development: protecting, feeding and loving the developing brain. *Social Science & Medicine*, 97, 297–306.
- Paulus FW, Ohmann S, von Gontard A, Popow C. (2018) Internet gaming disorder in children and adolescents: a systematic review. *Dev Med Child Neurol*. 2018;60:645–659. doi: 10.1111/dmcn.13754.
- Patton, M.Q. (2002). *Qualitative Research and Evaluation Methods*. Thousand Oaks, CA: Sage.
- Pérez, P., Hincapié, B., Arias-Cardona, A. (2018) Socialización de jóvenes a través de las TIC en una institución educativa de Antioquia. DOI: 10.11144/Javerianacali.PPSI16-2.sjti
- Pentz, M.A.; Spruijt-Metz, D.; Chou, C.P.; Riggs, N.R. High Calorie, Low Nutrient Food/Beverage Intake and Video Gaming in Children as Potential Signals for Addictive Behavior. *Int. J. Environ. Res. Public Health* 2011, 8, 4406-4424. <https://doi.org/10.3390/ijerph8124406>
- Queiruga, S. (2020) Por qué triunfa Among Us, el juego gratuito que lidera el ranking de apps más descargadas de España. *Marketing Ecommerce*, September. Available At: <https://marketing4ecommerce.net/por-que-triunfa-among-us-el-juego-gratuito-que-lidera-el-ranking-de-apps-mas-descargadas-de-espana/>
- Quwaider, M., Alabed, A., Duwairi, R. (2019) The Impact of Video Games on the Players Behaviors: A Survey, *Procedia Computer Science*, Volume 151, Pages 575-582, <https://doi.org/10.1016/j.procs.2019.04.077>.
- Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (Eds.) (2013). *Qualitative research practice: A guide for social science students and researchers*. Sage
- Rodríguez, G.; Gil, J.; García, E. (1996) *Metodología de la investigación cualitativa*. Málaga: Edición Aljibe.
- Rojas, V. (2008) Influencia de la televisión y videojuegos en el aprendizaje y conducta infanto-juvenil. DOI: 10.4067/S0370-41062008000700012

Saleem, M., Anderson, C. A., & Gentile, D. A. (2012). Effects of prosocial, neutral, and violent video games on children's helpful and hurtful behaviors. *Aggressive Behavior*, 38 (4), 281-287.
<https://doi.org/10.1002/ab.21428>

Sandoval-Obando, E. (2020) Caracterización del trastorno por videojuegos: ¿Una problemática emergente? *Pensamiento Psicológico*. DOI: <https://doi.org/10.11144/Javerianacali.PPSI18-1.ctvp>

Schamber, L. (2000). Time-line interviews and inductive content analysis: Their effectiveness for exploring cognitive behaviors. *Journal of the American Society for Information Science*, 51(8), 734-744.

Schilling, J. (2006). On the pragmatics of qualitative assessment: Designing the process for content analysis. *European Journal of Psychological Assessment*, 22(1), 28-37.

Shanley, P. (2020) Gaming Usage Up 75 Percent Amid Coronavirus Outbreak, Verizon Reports, The Hollywood Reporter. Available at: <https://www.hollywoodreporter.com/news/general-news/gaming-usage-up-75-percent-coronavirus-outbreak-verizon-reports-1285140/>

Singh, M. (2019). Compulsive Digital Gaming: An Emerging Mental Health Disorder in Children. *The Indian Journal of Pediatrics*, 86(2), 171-173. doi: 10.1007/s12098-018-2785-y

Smith, H.W. (1975). *Strategies of Social Research: The Methodological Imagination*. Englewood Cliffs, NJ: Prentice-Hall.

Sourmelis, T., Ioannou, A., & Zaphiris, P. (2017). Massively Multiplayer Online Role Playing Games (MMORPGs) and the 21st century skills: A comprehensive research review from 2010 to 2016. *Computers in Human Behavior*, 67, 41-48.

Starcevic, V., & Aboujaoude, E. (2017). Internet Addiction: Reappraisal of an Increasingly Inadequate Concept. *CNS Spectr*, 22(1), 7-13. doi: 10.1017/S1092852915000863

Stockdale, L., & Coyne, S. (2018). Video Game Addiction in Emerging Adulthood: Cross-Sectional Evidence of Pathology in Video Game Addicts as Compared to Matched Healthy Controls. *J Affect Disord*, 225(1), 265-272. doi:10.1016/j.jad.2017.08.045

Traudt, P. J. (2005). *Media, audiences, effects: An introduction to the study of media content and audience analysis*. New York: Pearson Education.

Unsworth N, Redick TS, McMillan BD, Hambrick DZ, Kane MJ, Engle RW. Is playing video games related to cognitive abilities? *Psychol Sci*. 2015 Jun;26(6):759-74. doi: 10.1177/0956797615570367. Epub 2015 Apr 20. PMID: 25896420.

Vallés, M. (1997) *Técnicas cualitativas de investigación social. Reflexión metodológica y práctica profesional*. Madrid, Síntesis.

Van Patten, R., Weinstock, J., & McGrath, A. (2018). Health Outcomes in Individuals with Problem and Pathological Gambling: An Analysis of the 2014 North Carolina Behavioral Risk Factor Survey System (BRFSS). *Journal of Gambling Studies*, 34 (1), 297-306. doi: 10.1007/s10899-017-9712-4

Vukosavljevic-Gvozden, T., Filipovic, S. & Opacic, G. The Mediating Role of Symptoms of Psychopathology Between Irrational Beliefs and Internet Gaming Addiction. *J Rat-Emo Cognitive-Behav Ther* 33, 387-405 (2015). <https://doi.org/10.1007/s10942-015-0218-7>

Zhang, Q., Cao, Y and Tian, J (2021). Effects of Violent Video Games on Aggressive Cognition and Aggressive Behavior. *Cyberpsychology, Behavior, and Social Networking*. Jan 2021.5-10. <http://doi.org/10.1089/cyber.2019.0676>