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IMPACT OF THE CONFINEMENT ON THE USE OF VIDEO GAMES, GAMING-RELATED MOTIVATIONS: A QUANTITATIVE AND QUALITATIVE STUDY

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Abstract

The rapid spread of Coronavirus disease all over the world led to health and political measures in several countries such as spatial distancing, closures of institutions, and so ones. People were invited to stay home with limited outside activities and face-to-face interactions. To pass the time, and to cope with negative feelings, people had to find alternative activities like playing video games. The present study aims to investigate potential changes in gaming behaviors and the associated gaming motivations. To do so, 346 participants were invited to complete a questionnaire during the confinement and to answer the following question: "Why do you play and is there a link with confinement?" Contextual and social motivations seemed to be two of the most important motivations.

Keywords: *Video games, COVID-19, confinement, gaming disorder, motivations.*

1. Introduction

Coronavirus disease (COVID-19) pandemic officially started in March 2020 according to the World Health Organization (WHO, 2020). COVID-19 is a disease caused by a new coronavirus called SARS-CoV-2. The spread of the disease was unbelievably fast and affected more than 71 million of people all over the world. In order to control and slow down its spread, governments in numerous countries made some decisions such as spatial distancing, remote working when feasible, temporary closures of educational and cultural institutions, partial or total confinement, etc. In France, the virus affected more than 2 million of people since the pandemic has begun and the government imposed a total confinement from March to May 2020. All these measures resulted in increased time spent home, fear, stress, anxiety, depression and decreased well-being all over the world (Amin et al., 2020; Király et al., 2020; Pfefferbaum & North, 2020; WHO, 2020). Unfortunately, face-to-face interactions and means of stress relief had become limited or impracticable. People had to find other activities to cope with all these negative feelings, to change their mind and to pass the time. Playing video games was one of them. Actually, playing video games was one of the 20 most important activities that people preferred to carry out during confinement before watching TV or listening to music (Ortiz et al., 2020). Substantial increases in the sales of consoles and video games were observed in Europe. Studies also reported an increase of screen time, including gaming and other sedentary activities during confinement (Amin et al., 2020; Bhutani et al., 2020; Colley et al., 2020; Ortiz et al., 2020). In reality, playing video games can be an adaptive coping strategy on the short term (Amin et al., 2020; Király et al., 2020; Ko & Yen, 2020; Russionniello O'Brien & Parks, 2009) and such an activity had been supported during the pandemic by the World Health Organization with its hashtag *#PlayApartTogether*. Indeed, while COVID-19 pandemic calls for spatial distancing, video games allow social closeness. However, long periods of isolation, technology-based activities and limited face-to-face interactions might lead to maladaptive coping strategies and potential gaming disorder (Amin et al., 2020; King et al., 2020; Király et al., 2020; Ko & Yen, 2020; Mengin et al., 2020). Such a pathology was defined by the 11th International Classification of Diseases ([ICD-11]; WHO, 2018) including loss of control over the gaming activity, preoccupation, perseverance despite negative consequences and other different functional impairments in the player's life. Actually, some authors confirmed that COVID-19 pandemic and political measures might lead to an increase of substance and behavioral addictions (Mengin et al., 2020; Pfefferbaum & North, 2020).

The present study aims to investigate any change in gaming habits and motivations to play in relation to the COVID-19 pandemic and the confinement. In this context, gaming-related motivations are more relevant than ever. Yee (2006) identified three main motivations: achievement, social and immersion. The achievement component is composed of advancement, mechanics and competition. The social

component includes socialization, relationships and teamwork. Finally, the immersion component is composed of discovery, roleplay, customization and escapism. Demetrovics et al. (2011) added the recreational and the competence motivations. Moreover, they distinguished the coping motivation from escapism. Considering the negative consequences and the limited face-to-face interactions caused by the COVID-19 pandemic, we assume that social and immersion motivations would be the most pregnant among players during confinement, especially socialization, coping and escapism motivations.

2. Methods

2.1. Participants and procedure

A total of 346 participants answered the questionnaire, including 186 women (53.76 %). Ages ranged from 18 to 68 (M = 28.72 ± 6.37). The study was conducted in accordance with the Declaration of Helsinki during French total confinement: from the 16th of April to the 11th of May 2020. Participants were recruited on social networks. Before completing the questionnaire, designed using Sphinx Online, participants were given detailed information about the study (e.g. aims and background) and their rights (e.g. right to withdraw and confidentiality), and were then asked to give their informed consent. The questionnaire required about 10 minutes to complete and was anonymous.

2.2. Measures

Participants answered questions about their demographic characteristics and video gaming habits: age, gender, professional status, history of gaming activity (if one), weekly time spent on video games, current favorite game, preferences for online vs. offline gaming and for solo vs. social gaming. Reported gamers were then asked why they were playing video games and if their gaming activity was linked with the specific measure of confinement. On the contrary, non-gamers were invited to explain if the absence of gaming activity was regular or specific to the confinement. They then completed the following measures: the Game Addiction Scale (Lemmens, Valkenburg & Peter, 2009).

2.3. Statistical Analyses

We first conducted descriptive statistics using IBM SPSS 25. We then conducted a theoretical and semantic thematic analysis to assess the specific gaming motivations of players and their potential link with the confinement measure. We followed the step-by-step procedure of Clarke and Braun (2013): familiarizing with the data, generating codes, searching for themes, reviewing themes, defining and naming themes, and writing up.

3. Results

All demographic data, gaming habits and potential gaming disorder of the 346 participants whose 339 actual gamers are presented in Table 1. Concerning weekly gaming time we established normative zones based on the standard deviation (M = 20.85; SD = 16.72). Then, gaming time was distributed as follows: weak gaming time with less than 5 hours (10.03 %), normal gaming time from 5 to 37 hours (74.63 %), heavy gaming time from 38 to 54 hours (9.14 %) and finally extreme gaming time with more than 54 hours (6.19 %).

Table 1. Demographic information, gaming habits and gaming disorder of the participants (N = 346).

	N	%	M	SD
Demographic				
Male participants	160	46.24		
Female participants	186	53.76		
Age			28.72	6.37
Presence of gaming activity				
Yes	339	97.98		
No	7	2.02		
Gaming Habits*				
Weekly time spent gaming			20.85**	16.72
Gaming history				
Less than 1 month	14	4.13		
From 1 to 5 months	4	1.18		
From 6 to 11 months	2	0.59		
From 1 to 5 years	33	9.73		
From 6 to 10 years	36	10.62		
More than 10 years	250	73.75		

	N	%	M	SD
Gaming disorder				
GAS score			9.50	5.04
Addicted	12	7.40		
Problem	89	26.37		
Highly engaged	51	10.29		
Other players***	187	55.95		

GAS = Game Addiction Score (Lemmens et al., 2009)
* Gaming habits were investigated among the actual 339 gamers
** Participants reported a weekly time spent on video games going from 1 to 85 hours
*** Other players are the non-addicted/non-problem/non-highly engaged players

Potential changes in gaming behaviors are presented in Table 2. Among non-gamers, two participants stopped playing because of the confinement measures. When asking why they stopped playing, the first participant reported the absence of gaming devices in the place he was confined to and the second one reported his family situation with a child to take care of and thus a lack of energy to play at the end of the day. On the contrary, a few participants started playing video games during the confinement (N = 16) which was in line with their gaming history (i.e. playing for less than 6 months; Table 1). During this specific period, the majority of gamers was playing video games more than usual (54.28 %).

Table 2. Potential changes in gaming behavior due to confinement among the participants (N = 346).

	N	%
Non-gamers	**9**	
Never played	5	71.43
Stopped with confinement	2	28.57
Gamers	**339**	
Started with confinement	16	4.72
Kept gaming but less	16	4.72
Kept gaming as much as before	123	36.28
Kept gaming but more	184	54.28

Only 309 participants answered the question about the motivations for play and the potential link with the confinement measure. Among them 34.63 % did not mention the confinement at all, 20.39 % said there wasn't any link and finally, 44.98 % assured there was a link (N = 139). We only included the latter answers in our thematic analysis to investigate gaming motivations in the context of confinement exclusively.

Table 3. Final themes, codes, occurrences and their corresponding extracts (N = 309).

Themes and codes	Extracts	N	%
Recreational		**105**	**33.98**
Pastime, hobby	*Video games allow me to pass the time*	56	18.12
Entertainment, fun	*Video games are fun and entertaining.*	21	6.80
Relaxation	*Video games relax me.*	15	4.85
Culture, habits	*I've been playing for years.*	11	3.56
Passion	*It's a true passion.*	2	0.65
Contextual		**95**	**30.74**
More free time	*More time to play.*	62	20.06
No other possible activities	*I have nothing else to do.*	20	6.47
Lockdown in a small place	*I have a small apartment and I cannot go out.*	7	2.27
Equipment	*The video game came out during the confinement.*	4	1.29
Absence of obligations	*I can play late.*	2	0.65
Social		**66**	**21.36**
Social gaming	*My boyfriend has time to play with me.*	35	11.33
Social ties	*To keep in touch with my friends.*	19	6.15
Availability of others	*I play more because my cousins are available to play.*	7	2.27
Online gaming	*I play more online.*	5	1.62
Immersion		**25**	**8.09**
Escapism	*Escaping without leaving home.*	20	6.47
Coping	*Video games make me forget about my problems.*	5	1.62
Achievement		**10**	**3.24**
Completion	*I have more time to play and end games.*	4	1.29
Competences	*Cognitive development.*	4	1.29
Mechanics	*For the scenario possibilities.*	2	0.65
Emotions		**5**	**1.62**
Positive emotions	*It makes me feel good.*	3	0.97
Absence of culpability	*When playing I feel less guilty because I have nothing else to do.*	2	0.65

The analysis resulted in 28 codes but 5 were not included in the final themes because they were mentioned once only (i.e. cooperation, competition, progression, meeting and avoidance of conflicts). Based on coding, themes were defined and named (Table 3). We noted three main gaming motivations each expressed by more than 20 % of the participants: recreational, contextual and social motivations.

4. Discussion

The principal aims of the study were first to investigate any change in gaming behaviors due to the confinement and second to analyze gaming motivations in relation to this specific period of time. We found out that almost all participants just kept playing during confinement and that the majority of them played more than usual. Based on normative gaming times, more than 15 % of participants were considered heavy or extreme gamers with more than 38 hours of gaming activity per week. However, *only* 7.40 % of the participants were considered addicted which was in line with usual prevalence rates (e.g., Fam, 2018). More than 36 % of the participants were either engaged or problematic gamers. Such gaming patterns might lead to future gaming disorder and called for vigilance. Recommendations for a healthy life staying at home made by the World Health Organization and other experts were then fully realized (Amin et al., 2020; King et al., 2020; Kiraly et al., 2020; WHO, 2020). Specific motivations in relation with the COVID-19 pandemic certainly played a key role in moderate to extreme gaming activities. The present study showed that two of the most important gaming motivations were contextual and social. Contextual motivations referred to the specific health and political contexts with (1) more free time to play, (2) no possibility to engage in other activities, (3) the lockdown in a small place always associated with a desire to escape from it and (4) the absence of constraints. All four contextual motivations were directly linked with closures of educational and cultural institutions, unemployment, remote working, and limited free movements inviting people to pass the time with other alternative activities. Another contextual motivation referred to the gaming equipment with material reasons to play: a new game and/or a new console during or just before confinement. Then social motivations, in line with Yee's work (2006), referred to the possibility to play with other people and so to keep in touch with them in order to compensate the limited face-to-face interactions. Another interesting motivation was the reported availability of people to play. Given that people had less constraints and more free time, they were more available than usual to play with friends or family members, encouraging then a more intense gaming activity. Social motivations illustrate the social closeness allowed by video games while spatial distancing is unfortunately required. Surprisingly, escapism and coping motivations were not as important as hypothesized. While 6.47 % of the participants reported to play in order to escape from real life, only a few of them reported playing to cope with negative feelings or with real-life problems (N = 5). Maybe social gaming is a good way to cope with negative feelings and to escape from real life and gamers only reported the explicit social motivation. Previous researches concluded that the most predictive motivations of gaming disorder were coping, escapism and achievement which were the less represented in the present study (Billieux et al., 2013; Moudiab & Spada, 2019; Plante et al., 2019). To conclude, playing for recreational and social reasons may be risky but not problematic *per se* which may explain why the prevalence rate here is not worrying in comparison with a normal context. However, vigilance remains essential and necessary on the development of gaming patterns and gaming disorder symptoms regarding the duration and number of confinements. And future researches could focus on the maintenance of such motivational and behavioral patterns on long-terms periods.

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