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**Rage in video gaming, characteristics of loss of control among gamers: A qualitative  
study**

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### **Contributors**

AM, EC and HC designed the study and wrote the protocol. AB, VP, MT et JM collected the data and conducted the analysis. AM and EC drafted the first version of the manuscript. H. Chabrol participated in the study design and drafting the manuscript. All authors edited and approved the final manuscript.

### **Conflict of interest**

Axelle Moreau, Amelie Bethencourt, Valentin Payet, Mégane Turina, Julia Moulinard, Henri Chabrol, and Emeline Chauchard declare no conflict of interest.

## ABSTRACT

Online forums devoted to video games dedicate discussions to a phenomenon called “rage” that produces difficulties for gamers. Rage is described as expressing violent and impulsive reactions through excessive frustration or bad faith while gaming. The aim of this qualitative study was to describe rage as it occurs in online video games and to identify its etiology and consequences. A qualitative study included 24 gamers aged 18 to 30 years. Semi-directive interviews were conducted and participants completed an online survey. Two researchers rated each interview using the thematic analysis method and reported an agreement rate of 83%. The gamers described rage as a change in the manner of playing caused by a feeling of frustration during the game. Rage has components that are behavioral (aggressive behaviors), cognitive (poor decision-making) and emotional (anger). Rage can be contagious among gamers and may result in the loss of the game and a “rage quit”, an abrupt cessation of the game. Rage appears of prime importance to regulate rage episodes and targeting emotion regulation which can be used as a hook for the prevention of the problematic gaming.

### **Public Policy Relevance Statement**

Rage is a phenomenon of behavioral, emotional and cognitive loss of control that occurs while playing an online video game. Rage could have consequences on psychological well-being of players and their teammates. Players seek to control rage episodes to perform in the game; rage could also be a gateway for prevention

## **Rage in video gaming, characteristics of loss of control among gamers: A qualitative study**

In the last two decades, video games have become increasingly included in our everyday life through various technologies (game consoles, laptops, smartphones, or tablets). In the USA, video games are used in 67% of homes; about 60% of video gamers are under 35 years old and 40% of gamers are female (Entertainment Software Association., 2017). In this age group, gamers mostly play on computers (Entertainment Software Association., 2017; Hakim et al., 2014). In France, 73% of the population plays video games and 49% of them play online (Hakim et al., 2014). Despite the massive use of video games in our societies, few studies have focused on gamers' behaviors and experiences during gaming (Kuss & Griffiths, 2012).

Most of the players have a recreational use of video games, but some individuals may develop excessive use (of over 30 hours a week) or an addictive behavior with consequences on health (American Psychiatric Association, 2013; Batthyány et al., 2009; Porter et al., 2010; Rehbein et al., 2010). There is currently a debate on gaming disorder, the DSM-5 does not include it as a disorder, whereas the World Health Organization (WHO), in the ICD-11, does recognize it as such . A gaming disorder is characterized by impaired control over gaming, increasing priority given to gaming, and the continuation or escalation of gaming despite the occurrence of negative consequences and functioning impairments over a 12-month period (World Health Assembly, 2018). Gaming disorder risk factors have been identified; some are related to the structure of the game and others to the gamer's vulnerability (Caplan et al., 2009; Kim et al., 2008; Kuss et al., 2014; Kuss & Griffiths, 2012; Rehbein et al., 2010). Thus, playing online and playing Massively Multiplayer Online Role-Playing Game (MMORPG), having a strong desire to improve gaming skills, having a powerful identification with the avatar, or a low self-esteem, are considered to increase the risk of developing a gaming disorder or excessive use of video games. Similarly, emotion regulation is involved in the

vulnerability of gaming disorders and in negative outcomes of gaming (Hemenover & Bowman, 2018; Marchica et al., 2019).

Gamers need to regulate unpleasant emotions, such as frustration and anger. They are unpleasant feelings that can lead to aggressive behavior. In the framework of video games, anger is mostly studied in the context of violent video games and is associated with aggressive behavior. The assumption that violent video games increase anger and generate aggression yields contrasting results and is and there is currently no consensus about the nature of their association (Lee et al., 2021; Morrison et al., 2021). However, anger and anger related ruminations are involved in the relationship between violent video games and aggressive behavior (Morrison et al., 2021; Yao et al., 2019; Zheng et al., 2021). Although anger is mainly discussed in the literature in relation with aggressive behavior and violent video games, anger and rage also appear in nonviolent video games and on forums and platforms of discussion. The mainstream gamers report the experience of violent, impulsive reactions, and loss of control during the game. While it is documented by gamers and described as a part of the game experience there is a lack of literature on these episodes of loss of control during the game, whether it is violent or not (Wu et al., 2021).

An observation of forums dedicated to online video games found that players often mention a particular experience that causes difficulties, named 'rage' or 'tilt'. Rage is defined by players as the expression of violent and impulsive reactions through excessive frustration or bad faith while gaming. Rage appears to cause a change in the gamer's behavior, a loss of control over behavior and emotion, and a loss or a cessation of the game named "rage-quit" (Przybylski et al., 2014). Recently, two qualitative studies explored the characteristics of rage among children and adolescents engaged in e-sport (Kahila, Juho et al., 2021; Wu et al., 2021). The authors described rage as a negative emotional reaction, mainly frustration and anger, associated to a cognitive confusion and a deviance of the usual game play (Wu et al., 2021). To regulate rage, gamers start by quitting the game either to calm down, or to express

emotions by crying, shouting, and breaking the materiel, or finally by doing nothing and accepting the rage episode. The main triggers of rage are other players (friend, member of team, or a stranger), oneself by judging his own level of play as low (low self-efficacy and failure) and technical problem that occurred during the game (with material, game, or Internet connection) (Kahila, Juho et al., 2021; Wu et al., 2021). In these samples of children and adolescents in the context of e-sport, the authors mainly explored the reasons, the emotions and their regulation, as well as the behavior associated with rage. Noteworthy, cognitive functioning and consequences of rage remain unexplored.

Based on the descriptions identified on the forum, rage in video games is experienced by most regular gamers. To our knowledge, no studies focus on describing video game rage among young adults. We based our study on a sample of young adults aged between 18-35 years old given that it is the age group which gather the most players while looking at online data about video games (Entertainment Software Association, 2017), and Bilgihan et al. (2013) argue for an age limit of 35 years old, that separates players according to time spend playing (younger play more) (Bilgihan et al., 2013). This study is exploratory and based on the Interaction of Person-Affect-Cognition-Execution model for addictive behavior (Brand et al., 2016, 2019), in order to understand the cognitive, behavioral and emotional characteristics of rage (Przybylski et al., 2014). We focus on participants' description of their own rage episodes and their acts, feelings and thoughts, before, during and after rage episodes. The first aim of this exploratory study was to define those episodes of behavioral loss of control, to identify their characteristics and to collect the cognitive, behavioral and emotional data from the gamer's experience. The second objective was to identify the strategies implemented by the players to regulate those episodes.

## Methods

### Participants

To participate, gamers had to be aged between 18 to 35 years old and had to be online gamers on computers, as well as MMORPG, First-Person Shooter (FPS) or Multiplayer Online Battle Arena (MOBA) players, for at least one hour a week. Twenty-four interviews were conducted, the average length was 12 minutes, fluctuating between 7 to 20 minutes. Most of the participants were male (n=20).

### Measures

#### *Semi-structured interviews*

A semi-structured interview guide was created in order to collect data on the experience of raging, including its behavioral, cognitive, emotional and environmental characteristics. It was based on the semi-structured interview guide used in the qualitative research on online poker tilt (Moreau et al., 2015). The semi-structured interview guide is available in the Supplementary Material.

#### *Thematic analysis*

To analyze the interviews, we used a thematic analysis procedure; four Master's students participated in the analyzes. First, each individual student carried out a preliminary thematic analysis of three interviews. Secondly, they pooled the matrix they had made after the preliminary thematic analyzes to combine the themes identified by each assessor and build the rating matrix together. Thirdly, the four investigators rated the same interview individually using the rating matrix to verify and adjust the evaluations. Lastly, the thematic analyzes of the 24 interviews were performed; two students worked on the evaluations of each interview, and each of them rated 12 interviews. The inter-rater reliability was verified and showed a good agreement rate, as 83% of the occurrences were classified identically by the two pairs of students. An occurrence corresponds to a verbatim that fit with one of the

thematic identified in the rating matrix.

### ***Online questionnaire***

Participants completed an online questionnaire that included sociodemographic and video game use questions, as well as the short version of the Game Addiction Scale (GAS) (Lemmens et al., 2009). The GAS evaluates video game addiction with seven items measuring strength, tolerance, humor modifications, relapse, avoidance, conflict and problems that the subject experiences in relation to gaming. Participants indicated the frequency of the behaviors described on a five-point Likert scale (from 1 “never” to 5 “very often”). The scores ranged between 7 to 35, and Cronbach's  $\alpha$  was  $=.82$ . Use is considered problematic when participants obtain a score of above 3 (sometimes) for at least four items (Lemmens, 2009).

### ***Procedure***

Data were collected between December 2016 and March 2017. We called for participants by displaying the study announcement on online social networks and in various places or events (Game Show, stores, University). The individuals interested in participating contacted the research team by email to agree on an appointment. We asked them to complete an online informed consent form. For convenience reasons, the interviews were made by an investigator using Skype. After the interview, the participant was emailed the link to complete the online questionnaire. The investigator was available by chat during the time the participants completed the online questionnaire.

## **Results**

### **Descriptive statistics**

The sample was mostly male and the average age was 22 years old ( $SD=3.3$ ). 12% ( $n=3$ ) played once a day; 45% ( $n=11$ ) played several times a day. The duration of the gaming sessions was more than 2 hours (75%,  $n=18$ ). The types of games most played by the

participants were MOBA (42 %, n=10) and FPS (46%, n=11). The problematic use of video games involved 66.5% (n=16) of the participants. The descriptive data of the sample is presented in Table 1.

### **Description of the rage phenomenon**

All of the participants (N=24) indicated experiencing changes in behavior during video gaming. The terms most commonly used to describe this phenomenon are “rage” (n=24) and “tilt” (n=14). These episodes seem to impact the gamers on an emotional, cognitive and behavioral level. This phenomenon is generally described as temporary loss of control of playing behavior, linked to anger and frustration. *“It’s a loss of control, in the heat of the moment, that leads to loss of self-control, which is linked to certain events in the game, to a lack of skill, etc.”*; *“Raging is more like getting angry with the other people, being more negative and sometimes even leaving in the middle of a game round”*; *“I’ll get angry at my PC, I’ll probably shout out insults (laughs). Erm, shout a lot, even. Then again, I’m not personally the type to throw my controller around, well, maybe a bit in fact.”*; *“The name speaks for itself, raging is really when you blow a fuse. It’s when you can’t control yourself anymore and you start insulting everything around you”*; *“It’s more like a loss of control. We get a bit carried a way and we just start swearing, whereas in real life we wouldn’t”*; *“Basically, raging is a passing, temporary state, it doesn’t last”*.

### **Emotional level**

Two major emotions were identified in the participants’ speeches. Firstly, 79% of the players (n=19, 44 occurrences, i.e. 2.6% of the total occurrences) experience anger, irritation or nervousness during episodes of rage.

“Basically it bubbles up, I mean I can feel it growing, and after a while it feels like I’ll explode, I’ll really get angry”; “it all depends on the situation, but it really is deep irritation”;

“It’s being in the heat of excessive anger, and leads to loss of self-control”.

Secondly, the presence of frustration is noted in 54% of the players (n=13, 44 occurrences, i.e. 2.6% of total occurrences), for example, *“it’s frustrating”*, *“I feel very frustrated”*, *“it’s going to frustrate me”*, *“it’s a cocktail in the end, frustration, irritation, excitement...”*.

A little under half of the players also describe negative emotions such as guilt or disappointment (n=13, 38 occurrences, i.e. 2% of total occurrences), *“It can go really far in terms of emotions when I’m raging, I get to the point where I don’t want to do anything, I’m disorientated and annoyed with myself”*.

### **Cognitive level**

Ninety-two percent of the players (n=22, 84 occurrences, i.e. 5% of total occurrences) express cognitive difficulties. The players describe concentration difficulties: *“When I rage, I’m actually less concentrated on the game.”*; *“I have trouble thinking”*; *“I play without paying much attention”*; *“I’m not thinking about what I want to do”*; *“Firstly, I can’t concentrate anymore”*.

The players also describe more impulsivity in their decision-making: *“You don’t really think about the consequences of these actions straight away”*; *“well, basically I just don’t think! Because I’m spontaneous”*.

Meanwhile, they describe the presence of external attributions, which manifest in blaming the mistake on others: *“we’re going to blame it (the mistake) on our teammates”*; *“we hold them (the other players) a little responsible”*; *“we’re not as kind or lucid”*; *“I’m moaning at the game in fact”*.

Twenty one percent of the players (n=5, 13 occurrences, i.e. 0.8% of total occurrences), describe dissociative phenomena, such as: *“I’m in another state, in which time goes by faster”*; *“what we say isn’t really relevant to what is actually happening in the game round”*.

One player describes a vicious circle: *“To know we’re raging and that we can’t control it makes us rage even more than what had happened before, in fact. It’s a vicious circle that can send you into a spin, uh... yeah, it can really make us blow up”*.

### **Behavioral level**

Regarding behavior, all the participants (n=24, 216 occurrences, i.e. 12.9% of total occurrences) mention behavioral manifestations, essentially of aggressiveness. *“I speak a little more loudly, and once or twice I’ve hit my desk but that happens very rarely”*; *“I’ll hit my desk, hit my keyboard, hit the mouse, hit the screen, insult all the players... you know (laughter)”*; *“I start insulting people and, like, knocking the mouse about, I sit back down, it’s true that I can move the mouse abruptly, bang my fist on the table, that kind of thing, but it doesn’t go far.”*; *“It can create nervous trembling, a way of acting that highlights aggressiveness in terms of behavior, something that really gives off anger, you can be really agitated, move, and in terms of the tone of voice too”*.

Verbal aggressiveness is noted for 88% of our participants (n=21, 127 occurrences, i.e. 7.6% of total occurrences). They thus start to *“insult other people”*; *“let go verbally”*, *“I let off steam, I say what I need to say, insults”*; *“using strong swear words in a spontaneous way”*.

Physical aggressiveness is present 63% of the players (n=15, 28 occurrences, i.e. 1.7% of total occurrences) and manifests through violence towards pieces of furniture: *“Sometimes I might hit or punch the bed”*; *“throwing my controller”*; *“hitting the desk”*; *“for example, throwing objects on the floor. Like knocking a bottle of water that’s beside you, and running the risk of damaging your equipment”*.

Furthermore, 50% of the players (n=12, 63 occurrences, i.e. 4% of total occurrences) can experience a feeling of loss of control: *“I’m spontaneous. Whenever I think something, I say it, cash, and I don’t think of the consequences it can have”*; *“you just can’t control*

*yourself anymore*"; *"you don't control the situation anymore"*.

However, 50% of our participants (n=12, 47 occurrences, i.e. 2.8% of total occurrences) add that this phenomenon is a transitory state: *"it doesn't last"*; *"it's not necessarily long"* or even *"it's temporary"*.

## Causes

All the participants (n=24) evoke external factors to explain the triggering of this phenomenon. Two major causes can be noted in their descriptions. 83% of them (n=20, 133 occurrences, i.e. 7.9% of total occurrences) describe that rage may be caused by interactions with other players: *"when others start to insult you"*; *"when the guy in front of you says 'easy', well, that just drives you crazy"*; *"Generally, you don't rage when you're alone. You get angry, you'll want to go further in the game, but you won't rage like a guy can make you rage, you know"*; *"when I play with other people, when the person has a bad attitude, well, I mean when they do badly what they're supposed to do, when they don't follow the logic of the game"*.

Another cause of rage is experiencing failure, for 88% of the players (n=21, 106 occurrences, i.e. 6.3% of total occurrences), when *"we lose many times in a row"*; *"when we lose"*; *"the fact of losing"*; *"a dude that kills me several times in a row"*; *"when we lose many times in a row"*; *"when I lose my ranking"*; *"repeated situations of failure"*; *"when you just get killed continuously"*.

Finally, 67% (n=16) of the players link the competitive aspect of video games with the emergence of a rage episode, and describe a greater presence of the phenomenon in *"competitive games"*, when you *"measure yourself against the other"*, and the call for a *"competitive spirit"*; *"even if you're here to play, all of this is still a match so it's a competition"*; *"people with a very, very competitive spirit mostly. But then I think that everybody is prone to raging if you want to win"*.

Two older participants (28 and 24 years old) also noted an effect of the player's age. These gamers explain that in their view, young players are not only a cause of rage, because of their provocative behavior, but are also more likely to experience these episodes of loss of control. *“Generally, the kids, those are the ones who are good. They have more reflexes, they're quick, but at the same time, they don't have the maturity to calm down; ‘Those who are between 14 and 18 years old, generally those are the ones who fire off comments (aggressive ones) and it's going to piss you off. At the same time, if they lose, they'll blow up faster”.*

### **Consequences**

For 63% of the players (n=15, 40 occurrences, i.e. 2.4% of total occurrences), rage leads to the loss of the game round. *“The round will finish faster and generally, it will end in a defeat”; “my level of gaming worsens”; “it's going to affect the way they play, and they won't play as well and I'm not as likely to win”; “If you're too submerged by rage, yes, you're going to play any old how, and because of that you're going to lose”; “so that makes you lose the round or even the game”.*

Furthermore, 63% of the players (n=15, 28 occurrences, i.e. 1.7% of total occurrences) explain that rage can have a contagious effect on the other players : *“the others also start to get angry and to rage, and then it's over”; “it spreads”; “it'll infect the others”; “it can really destroy the game and its atmosphere”; “when we get into this rage and the others share it and infect the others, and then everybody is angry”; “you can sense the atmosphere, even the players on your team change their way of playing, actually, you can sense it in the movements and the way they play”; “in gaming (online), the problem is that it's basically going to infect the others. It can really spoil the game and its atmosphere, because if everybody is swearing or being sworn at”; “the team's cohesion is challenged, there's no longer any cohesion at all in my view... ”.*

A loss of pleasure in playing or a loss of interest for the game is described by 66% of the players (n=16, 73 occurrences, i.e. 4% of total occurrences). *“I don’t feel like playing anymore, and I don’t enjoy it anymore”*; *“Either I don’t want to play at all anymore, or I stop playing, or I continue playing but I don’t really want to continue”*; *“It’ll also impact my enjoyment, I’ll enjoy playing less, you just want to win (...). Actually, you want it to end fast and to move on (laughter)”*.

Moreover, a positive and liberating effect of these rage episodes is described by 42% of the players (n=10, 36 occurrences, i.e. 1.9% of total occurrences). *“In the heat of the moment, it clearly did me good. Clearly”*; *“It’s more like an outlet, where everything is allowed basically, and so I’m not going to contain my rage, but offload, for example after a crap week. I’ll offload and it’ll do me good in fact”*.

### **Rage regulation**

In order to cope with this phenomenon of rage, the players describe establishing regulation strategies such as changing activities or rationalization.

Changing activities is used by 79% of the players (n=19, 72 occurrences, i.e. 4.3% of total occurrences), for example: *“I watch a movie or I read a book”*; *“I go and get some fresh air”*; *“Either I do something else, I smoke a cigarette, or I just take a break, I go and eat something”*. 71% of the players (n=17, 49 occurrences, i.e. 2.9% of total occurrences) try to rationalize their anger. This is conveyed in statements such as: *“I manage to tell myself that it’s just a game”*; *“there’s no reason to get angry for something like that, there are more important things in life”*; *“I know how to get some distance on this, I know it’s a game and that even if I lose it’s not the end of the world”*; *“Telling yourself that even if you have objectives in the game, just telling yourself that it’s only a game round”*; *“I imagine him (the opponent) as someone inferior to me, to reassure myself in a way”*.

Lastly, we note that social support may have a role in the regulation of the

phenomenon of rage, for 58% of the players (n=14, 40 occurrences, i.e. 2.4% of total occurrences) indicate that *“playing with friends, that helps”*; *“we lose control more easily alone than with friends”*; *“you rage more when you’re alone (in the room)”*; *“Well, it’s the people who are next to me, like my parents, who say ‘shut up, stop shouting’ (laughter)”*. *Because personally, I don’t realize it”*.

A majority of the players also described a type of behavior that seems to be closely associated to rage, actually named “rage-quit”. *“I rag- quit, that means I leave the game. Then, I turn off the computer directly and I go and relax”*; *“Sometimes I can leave the game directly”*; *“Instead of getting angry and insulting the player, I just turned the game off as so not to smash everything”*; *“what’s on repeat in my mind the most is ‘do I rage-quit?’. Even if that means getting a warning”*.

A player also described another strategy which consists in only cutting short the conversations with the others: *“I do what we call a mute, basically I turn off the chat”*.

## **Discussion**

The aim of this study was firstly to explore and define the characteristics of rage in video gaming. The results of the thematic analysis indicate that a specific experience of loss of control exists in the context of online video games. This experience, called rage or tilt by the players, is characterized by a change in the manner of gaming caused by a feeling of frustration during the game. This phenomenon impacts the gamer on emotional, cognitive and behavioral levels.

Rage seems to be brought on by factors external to the game, mainly the interactions with the other players, and in major contests in which the gamer loses. The social and competitive components of these video games may well contribute to experiencing episodes of rage. On the emotional level, rage occurs due to a loss of emotion regulation abilities, resulting in anger and frustration that can involve hatred. After the rage episode, the players

described negative feelings such as guilt and self-disappointment. On a cognitive level, the impairment of reasoning abilities results in a difficulty in decision-making and in the implementation of adaptive strategies. We observe an increase in external attribution of the perceived causes of the failure in the game. After the episode, gamers describe a loss of interest and motivation for gaming. Finally, on a behavioral level, gamers highlight significant restlessness and impulsivity, that could be associated with verbal or behavioral aggressive acts. The gamers described two specific characteristics of rage episodes: (1) they are transitory, lasting from a few minutes to a few hours and (2) they are contagious. The rage involves the gamer himself, as well as his teammates and adversaries.

Rage in some aspect could be compared with toxic and aggressive behavior in the context of violent video games. Toxic behavior is defined by anger and frustration generated by a negative event during the game, leading to toxic communication (harmful, contaminated, and disseminated toxic type) (Neto et al., 2017). Few studies address the question of toxic behavior (Kordyaka et al., 2020). Compared with the violent nature of the video games, toxic behavior are more related to the type of game (multiplayer), the competitive characteristic of the game and of the gamer (Kordyaka et al., 2020; Neto et al., 2017). First, rage can lead to toxic and aggressive behavior; especially anger is involved in the relationship between video games and aggressive behavior (Morrison et al., 2021; Yao et al., 2019; Zheng et al., 2021). Then, as toxic behavior, rage is contagious to other players and can impact their psychological well-being (Kordyaka et al., 2020; Neto et al., 2017). Toxic and aggressive behavior have an influence on the other players and on their psychological state (Zsila et al., 2022).

Gamers describe various ways of handling the episodes. First, the most frequently used method, and described as the most efficient, is stopping the game. One of the most specified strategies is “rage-quit”, defined as an abrupt, impulsive cessation of the game due to rage. Gamers describe using rationalization in order to set a distance between them and the game. They indicate that social support plays a major role in the regulation of rage episodes,

either by limiting its onset or by an incentive from other players to stop the game in order not to pass on their rage to the other members of the team. The most relevant aspect of rage-quit should be the behavior of the player once they quit the game (Wu et al., 2021). Some players calm down, do something else, and others express their emotions sometimes violently. Emotion regulation is at the core of rage management and is associated with problematic gaming and its consequences on teammates.

Anger and rage imply aggressive behaviors up to and including violence. Gamers are interested in regulating their rage episodes and emotion regulation can be used as a hook for the prevention of the problematic gaming and in e-sport in which rage has to be regulated for performing and being successful. Interestingly, the mediating role of anger rumination between online violent video games and online aggressive behavior can be moderate by self-control (Zheng et al., 2021) and stress and low performances in the game are a part of a vicious circle leading to toxic behavior (Neto et al., 2017). The exposure to repeated toxic behavior during the game, may lead to anxiety, low self-esteem (Kordyaka et al., 2020). As a consequence, helping the player to identify the first signs of a rage episode, informing them that they should stop or change for a less stressful game (Neto et al., 2017), could be interesting to limit the impact of rage on the player's psychological health, to preserve other players and the game environment (Zsila et al., 2022). Finally, rage could be the visible side of a problematic behavior for the gamer and its relatives (family, game partners). When repetitive and frequent, rage could be a gateway to address problematic gaming and more generally the negative consequences of gaming.

### *Limits*

This study presents several limitations. First, this qualitative research was conducted with a limited sample of 24 online video gamers in three categories. FPS, MOBA, and MMORPG. The population was young and included mostly men, thus excluding a

generalization of the results to the general population of online video gamers. Few literature on rage, anger, and aggressive behavior in the context of (violent) video games take into consideration gender. While men and women report an equal level of anger (Deffenbacher et al., 1996), there is no consensus regarding gender differences in aggression. Fahlgren et al. (2022) found that men and women are similarly aggressive but among men aggression is associated with anger trait (Fahlgren et al., 2022). In the video game framework, women reported a higher level of anger state than men after playing violent video games (Morrison et al., 2021). Considering the scarce literature, more studies is needed to explore gender issues, women may have a different definition, intensity in their rage episodes, and may managed the episode using different strategies from men.

Most participant (66,5 %; n=16) reported a problematic use of video games, which makes it difficult to generalize to the entire population of players. This prevalence is very high, considering we did not specifically look for participants with a problematic use. Rage description may concern more specifically players with a potential problematic use of video game. In addition, for each participant, data from the online questionnaire could not be matched with the data from the interviews (participants did not provide an anonymous code). It could have been relevant to link the description of the rage and the level of problematic gaming to identify differences in the experience and frequency of rage. This should be included in future studies on rage and on how it impacts gamers behaviors.

In addition, the interviews were conducted via Skype. This approach does not have the advantage of face-to-face interviews, but was adapted to the methodology in order to foster the diversity of the gamers involved in the study. Finally, a qualitative analysis involves a degree of subjectivity, that we tried to limit by using two investigators to evaluate each interview.

### *Conclusions*

This exploratory study is the first to focus on an experience which is specific to online video games among adults. Raging in video games could be defined as a behavioral, emotional and cognitive loss of control, that may spread to other gamers through online interactions. Futures studies should focus on the quantitative assessment of rage and its relations with online gaming disorder, gaming toxic behaviors and its consequences on the psychological well-being of the gamer and his team.

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