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Stigma and other public perceptions of recreational gaming and gaming disorder: A large-scale qualitative analysis

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ABSTRACT

Introduction: Individuals affected by addictive disorders commonly report stigma, which reduces engagement in treatment. To better understand the nature of stigma associated with gaming disorder, a new addictive disorder in the ICD-11, this study evaluated public perspectives of recreational and problem gaming.

Methods: An online survey recruited 1337 participants aged 35–50 years via *Prolific*. Participants were administered questions about: (a) perceptions of problem gaming as an addictive disorder; (b) public perceptions of gaming disorder as a diagnosis; and (c) perceptions of the utility of a gaming disorder category. A thematic analysis identified three primary themes: (1) *Public understanding of problem gaming*, (2) *Culture and context of attitudes towards gaming,* and (3) *Stigma responses to gaming.*

Results: Responses to a forced-choice survey question indicated that most (82%) participants endorsed problem gaming as an addictive disorder. Qualitative data indicated that some believed that a problem gaming diagnosis could increase stigma toward gaming and reduce treatment-seeking, whereas others believed that it would improve social supports and treatment availability. Gaming-related stigma affecting treatment engagement was associated with negative stereotypes about gamers (e.g., being 'lazy', 'childish', 'toxic') and gaming as an activity (e.g., 'waste of time', 'dangerous for children').

Discussion: This study shows that there are diverse views on problem gaming as a public health issue and mental disorder, and that these views are linked to perceptions of the need for resources and interventions. These data may inform research on gaming-related stigma experiences, as well as guide public health messaging to foster more balanced perceptions of gaming and reduce stigma judgments about individuals and families who experience gaming-related problems.

1. Introduction

Stigma is defined as a discrediting attribute which can cause prejudice, devaluation, status loss, and discrimination (Link and Phelan, 2001; Link et al., 2004; Yang et al., 2007). Stigma is commonly experienced by people suffering from mental illness and has been reported in a range of disorders, including gaming disorder (GD; Casale et al., 2023; Galanis et al., 2023; Peter et al., 2019). These social judgments and actions towards people can impact their well-being, self-esteem, and social engagement (Bos et al., 2013; Link et al., 1989; Markowitz, 1998; Weiss et al., 2006). Stigma can affect a person's willingness to seek or engage with treatment for fear of being stigmatized by others (Corrigan & Wassel, 2008). As a recent mental disorder, gaming disorder has generated academic discussion of the potentially stigmatized aspects of gaming as a leisure activity. For example, some researchers have claimed that the recognition of the GD category in the International Classification of Diseases (ICD-11) in 2019 may generate or exacerbate moral panic, stigma, and other negative reactions toward both problem and non-problem gamers (Aarseth et al., 2017; Division 46 Committee, 2018; Ko et al., 2020; Markey & Ferguson, 2017; van Rooij et al., 2018). However, there is limited qualitative research on the GD diagnosis, including; how it may be associated with stigma towards people who game; the qualities of this stigma that may be specific to gaming; and how this stigma may be related to the acceptance of gaming problems, treatment-seeking, and seeking social support. Therefore, the present study aimed to examine social attitudes towards gaming disorder and what people perceive to be the impact of the diagnosis on gamers.

Gaming is an immensely popular hobby worldwide which can be normal and beneficial for users (Granic et al., 2014). However, gaming-related problems can be associated with bodily pain, repetitive

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strain injuries, social isolation, relationship conflict, psychological distress (e.g., depression and anxiety), poor sleep and diet, and loss of productivity (Ayenigbara, 2017; Saunders et al., 2017; Sublette & Mullan, 2012). In view of these issues, GD was introduced into the International Classification of Diseases (ICD-11; World Health Organization, 2018). Harmonizing with substance addiction models and gambling disorder, the criteria for GD refer to over-prioritization of gaming, impaired control over gaming, and continuation of gaming despite an awareness of the experience of harms and consequences (King & Delfabbro, 2020). Some research has reported that these criteria do not always distinguish between clinical and non-clinical populations (Colder Carras & Kardefelt-Winther, 2018; Ferguson & Colwell, 2019; Przybylski et al., 2017) and the GD category has been opposed by the Media Psychology Division of the American Psychological Association and Psychological Society of Ireland (Division 46 Committee, 2018). To avoid the controversy of the addiction label, the term '*problem gaming*' is often used by researchers to refer to gaming that is associated with significant negative consequences.

Stigma is commonly described as a process and as co-occurring components in social–cognitive models (e.g., Corrigan, 2000; Corrigan et al., 2003, 2009; Link et al., 2004; Link & Phelan, 2001; Rüsch et al., 2005). The first phase of stigma relates to the recognition that someone suffers from these problems due to learning about their diagnosis or noticing symptoms like withdrawing from other hobbies to play games (Corrigan, 2000; Link et al., 2004; Link & Phelan, 2001). This recognition of their problems may lead to stereotyping, affective reactions, and subsequent behavioral outcomes (Corrigan et al., 2003). Gamer-specific stereotypes have been noted in past studies, including views that people who game are generally unhealthy, overweight, and have poor social skills (Amby et al., 2020; Kowert et al., 2014). Behavioral outcomes may involve helping behaviors towards the stigmatized person if the observer takes pity on them or discriminatory outcomes like avoidance if the observer feels fear or anger (Corrigan et al., 2003).

Substance-based addictions are known to engender stigma, including perceptions of blame and dangerousness (Kilian et al., 2021), but there is limited research about stigma related to behavioral addictions such as GD (Galanis et al., 2021). Specifically, little is known about the nature of stigma among individuals with gaming-related problems. Some emerging research has sought to compare how people may appraise individuals with different psychological conditions. For example, experiments using vignettes have reported that GD tends to generate less public stigma than casino gambling or esports betting (Peter et al., 2019) but more than problem smartphone or social media usage (Casale et al., 2023). Other research has demonstrated that cognitive and affective features of self-stigma of substance use disorders are weakly related to problem gaming symptoms (Chang et al., 2023). These studies indicate that GD receives more stigma relative to other technology-based problems and less than gambling disorder, but also that self-stigma may lead to gaming as a coping mechanism.

Survey-based research has investigated clinician and scholar attitudes towards diagnostic categories, indicating that more than half of clinicians and scholars endorse GD as a mental health problem (Dullur & Hay, 2017; Ferguson & Colwell, 2019). Viewing an addiction as a disease is theorized to influence stigma in the form of reductions in blame and increases in compassion and treatment quality and availability, although it may also increase discrimination (Buchman et al., 2011). In their review, Schomerus et al., (2011) reported that alcohol use disorder is more stigmatized, and less likely to be considered a mental illness, than non-substance related mental illnesses. Additionally, viewing problem gaming as a disease rather than as a lifestyle choice reduced blame (Galanis et al., 2023). These studies indicate support for GD category among mental health professionals, and stigma towards gamers among lay persons. However, no research has investigated support for GD among members of the public or evaluated their attitudes towards gaming beyond quantitative measurement tools.

Although researchers refer to the stigmatized nature of gaming as a hobby and mental health condition, there are few descriptive accounts of gaming-related stigma due to a relative lack of qualitative data on problem gaming (Colder Carras et al., 2020; Karhulahti et al., 2023). In a vignette-based experiment comparing gamers with different levels of engagement, problem gamers received more public stigma than non-problem gamers, included blame, anger, fear, and avoidance (Galanis et al., 2023). However, research on stereotyping has indicated that recreational gamers still receive stigma, including perceptions of being less sociaable, unattractive, and passive (Kowert et al., 2012).

1.1. The present study

Past research suggests that some problem gamers experience significant public stigma (Casale et al., 2023; Galanis et al., 2023; Peter et al., 2019). However, there are limited accounts of the nature or quality of gaming-related stigma. Another important issue in the GD literature relates to research that indicates support among academics and clinicians for the GD category. A common argument raised in debates on gaming disorder, for example, is that the classification may stigmatize recreational gaming and/or gaming culture (Dullur & Hay, 2017; Ferguson & Colwell, 2019). However, these arguments often cite negative media reports or portrayals of gaming and there is a general lack of survey or other empirical data on people's views about GD as a diagnosis. Currently, there is a lack of qualitative research on the diverse stigma-related perspectives on problem gaming, including whether an official GD diagnosis may affect people's views and experiences. Qualitative research is important for guiding other empirical research on the GD category and informing this work using lived experiences (Stutterheim & Ratcliffe, 2021). Stutterheim and Ratcliffe (2021) argue that qualitative research empowers community perspectives in a way that is important for social justice issues such as stigma and balances data collection with theory that can improve the reliability and validity of quantitative research. This methodology is therefore crucial in new research areas to ensure that quantitative research is guided by lived experiences and ideas about the mechanisms, rather than assumptions applied from past literature.

As part of a larger project on gaming-related stigma (see Galanis et al., 2023), the present study aimed to examine the public perceptions of problem gaming as a mental disorder. Using a framework analysis approach, this study examined participants' views through the lens of stigma process models (Corrigan, 2000; Corrigan et al., 2003, 2009). The study's aims were: (1) to examine different perspectives on the nature of problem gaming and the extent to which gaming is viewed as addictive; (2) to investigate whether gaming disorder as a diagnostic category may affect stigma; and (3) to explore the types of stigma towards problem and non-problem gamers.

2. Method

2.1. Participants & recruitment

Recruitment was conducted through the crowd-sourcing platform *Prolific* which hosts an international sample of over 150,000 adult participants. Participants were eligible to participate if they were adults aged 35–50 years who reported playing video games less than 6 h per week. This age range sought to reflect stakeholders such as parents of adolescents who game, teachers, clinicians, and policymakers. A sample of 1407 participants were recruited and 1337 responded to at least one of the open-ended questions. The average age of participants was 40.4 years (SD = 4.4). Participants were 58.5% male (39.4% female and 1.2% other) and were mostly from Western backgrounds (UK: 43%; USA: 22.2%; Australia and New Zealand: 4.8%). Most participants were in a relationship (76.1%), had a child under 18 years (61.1%), employed (85.6%), and had an undergraduate degree (70.2%).

2.2. Design

The present study was part of an online experiment (see Galanis et al., 2023; preregistration details: https://osf.io/nkfm4). The study involved administering participants a series of open-ended self-report questions. The questions provided participants with the opportunity to give in-depth explanations about their feelings, attitudes, and perceptions in relation to the GD classification and its social consequences.

2.3. Measures

Demographic Information. These questions requested demographic information including age, gender, relationship status, employment status, income, and nationality.

Open-Ended Questions. Four exploratory questions were developed by the research team, which included a clinical psychologist and two psychology professors with over 15 years of experience: (1) Do you think problem gaming can be considered an addictive disorder? (2) Do you think a diagnosis of gaming disorder would change public perceptions of gamers or gaming? (3) Do you think a diagnosis of gaming disorder would be helpful for problem gamers? (4) Do you have any other comments about gaming or gaming perceptions? Participants provided written responses to these questions and there was no word limit on responses.

2.4. Procedure

Participants were screened for eligibility using the Prolific filters to make the survey available only to participants aged 35–50 years who reported playing video games for less than 6 h per week. The online survey was presented in English and administered using *Qualtrics* and took approximately 25 min to complete. Participants completed the demographic questions before being randomly assigned to groups and then completed the experimental phase of the study (see Galanis et al., 2023). They were then administered the open-ended questions used for the present study.

2.5. Ethics

The project was approved by Flinders University Human Research Ethics Committee (project ID 4349), and the procedures followed were in accordance with the Helsinki Declaration. Participants were provided with study information followed by an online consent form.

2.6. Data analysis

In total, there were 64,479 words across all written responses. The responses were analyzed using a framework analysis approach (Gale et al., 2013; Parkinson et al., 2016; Ritchie & Spencer, 2002) supported by NVivo qualitative analysis software (Lumivero, 2020). Framework analysis was chosen because it provides greater structure and organization to the traditional thematic analysis approach and is particularly favorable for larger datasets (Gale et al., 2013; Parkinson et al., 2016). The framework analysis approach involves five stages: (1) familiarization with the data; (2) development of a framework for organizing and coding the data; (3) indexing, where the whole dataset is coded based on themes; (4) charting summaries of the data into a matrix with a row for each participant and a column for each code; and (5) mapping and interpretation of the dataset as a whole, to identify relationships between variables and interpret the data (Gale et al., 2013; Parkinson et al., 2016; Ritchie & Spencer, 2002).

A framework was developed during discussion between both authors based on study goals and emerging ideas, following the authors reading through the data. This framework included several codes (i.e., descriptive summaries of the data) such as: explanations of problem gaming (addiction and alternative explanations); stigma processes based on Corrigan's (2000) model (i.e., recognition of mental illness or differences, stereotyping, affective responses, discriminatory responses, and helping and empowering responses); and additional data-driven codes such as comparisons to addictions or hobbies, benefits of games, changes over time and time periods, game types and features, personality and individual differences, and parent–child relationship.

A sample of responses ($n = 50$) was used to assess if preliminary codes were adequate for summarizing responses and before settling on the codes stated above for coding the whole dataset. The first 50 participant responses were used for the first test of the framework and the last 50 responses were used to confirm and finalize the framework before coding the entire dataset. The contents of each code were checked to ensure content was internally consistent and data was moved to other codes if it appeared to better relate to the ideas and content appearing elsewhere. NVivo generated a matrix summarizing participant responses for each code. Mapping was then conducted and relationships were identified between different codes to connect them as three main themes (*Public understanding of problem gaming*, *Culture and context of attitudes towards gaming*, and *Stigma responses to gaming*) with 10 subthemes collectively. The authors collaboratively discussed and refined the themes. The interpretation phase involved final adaptations of codes into themes to ensure that they appropriately represented and reflected the data.

3. Results

Table 1 presents a summary of participants' views on GD. Most (82%) participants indicated that they believed problem gaming could be considered an addictive disorder. There was less agreement on whether the diagnostic category of GD would change gaming-related public perceptions. About two-thirds of participants indicated that they believed that a GD diagnostic category would be helpful for problem gamers.

Three main themes were identified using qualitative framework analysis. These themes were: (1) *Public understanding of problem gaming;* (2) *Culture and context of attitudes towards gaming*; (3) *Stigma responses to gaming*. These themes and subthemes are illustrated briefly in Fig. 1 and fully elaborated in Supplementary Materials 1. In order from most common to least the subthemes were *Alternative Explanations for Gaming Problems* (T1); *Stereotyping* (T3; approximately one-quarter of this content focused on blame and control); *Defining Gaming Addiction* (T1; approximately one-third of this content focused on consequences due to gaming); *Recognition of Illness* (T3); *Interventions and Helping Behaviors* (T3); *Hobbies as Addictions* (T2); *Game Types, Features, and the Gaming Industry* (T1); *Attitudinal Change Over Time* (T2); *Affective Responses* (T3); *Discrimination and Avoidance* (T3). The most common theme was mentioned approximately 17 times more often than the least common theme.

3.1. Theme 1: Public understanding of problem gaming

3.1.1. Subtheme 1: Defining Gaming Addiction

Defining gaming addiction refers to participants' understanding of the critical criteria needed for them to classify or endorse gaming

Table 1
Summary of participants' responses to forced-choice survey questions; *n (%)*.

Question	Yes	No	Unsure
Do you think problem gaming can be considered an addictive disorder?	1096 (82.3%)	155 (11.6%)	81 (6.1%)
Do you think a diagnosis of gaming disorder would change public perceptions of gamers or gaming?	713 (53.7%)	403 (30.4%)	211 (15.9%)
Do you think a diagnosis of gaming disorder would be helpful for problem gamers?	843 (63.5%)	230 (17.3%)	255 (19.2%)

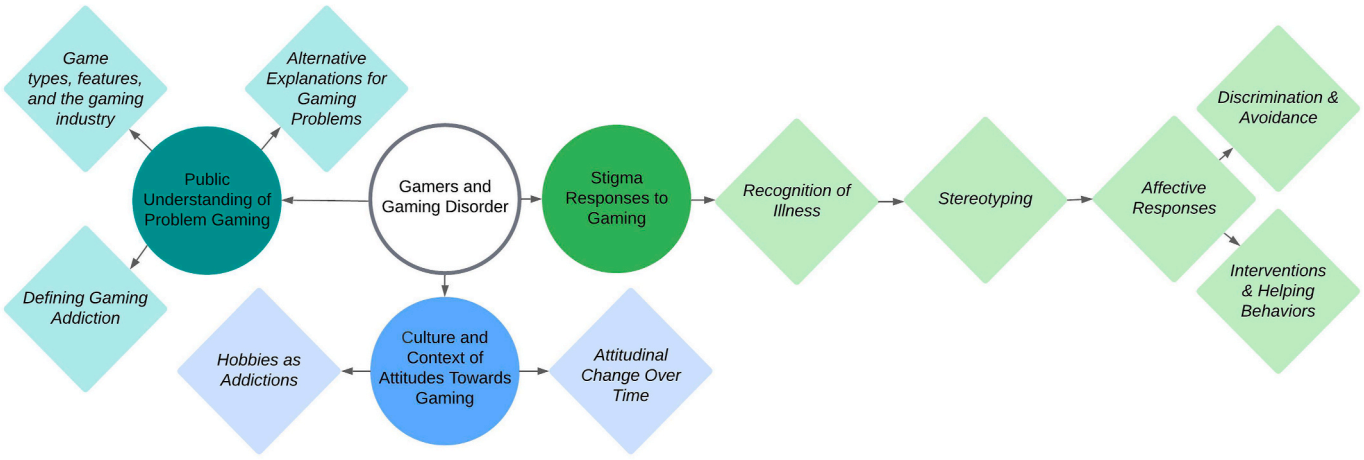

Fig. 1. Summary of relationship between themes.

problems as an addictive disorder. Participants varied as to whether they thought excessive screen time or gameplay indicated addiction (e.g., "*We do need to think about the time spent on them and whether it is healthy for them*" vs. "*I do not think simply playing a lot means you are necessarily addicted*"). Many participants noted neurological responses to gaming as a reason to endorse that it is an addiction (e.g., "*If the condition triggers the same mechanisms in the brain that a drug would*"; "*If it changes neurochemistry within an individual*"). Many participants acknowledged individual differences in susceptibility to gaming addiction (e.g., "*It can be very addictive for the right person*"; "*Yes, for those who are predisposed to being addicted to stimulations*"). Participants also highlighted symptoms consistent with the ICD and DSM categories for GD, including preoccupation (e.g., "*It would dominate my free time and thoughts*"), tolerance (e.g., "*They want to game more and more*"), withdrawal (e.g., "*When his gaming time was limited, he would become moody and irritable*"), loss of control (e.g., "*If the gamer finds it difficult to stop*"), experiencing problems from gaming (e.g., "*I would consider it a disorder only if it was having a negative impact on other areas of their life*").

3.1.2. Subtheme 2: Game types, features, and the gaming industry

Game types, features, and the gaming industry refers to elements of game design that participants thought influenced problematic gaming behavior and blameworthiness of people who struggle to control their gaming. Participants referred to mobile games and MMOs which they considered to be particularly addictive (e.g., "*I can't have Candy Crush or the many related games on my phone, I have to keep them off my phone completely or I play them obsessively*"; "*I have personally been addicted to playing an MMO*"). Other noteworthy features of modern gaming included its immersive qualities, fears of missing out, complex achievement structures, and gambling mechanisms (e.g., "*Gaming is addictive especially when your peers are playing. My son doesn't want to miss out so can be on there for hours if I let him*"; "*People get addicted to getting more levels and items*"; "*I fear that many games (particularly mobile games) utilize gambling like mechanics*"). Participants thought that game development should be regulated and developers should assume some responsibility for problem gaming (e.g., "*Games are specifically engineered for engagement to make them addictive*"; "*New games should go through the same rigorous process such as new drugs, before being released*").

3.1.3. Subtheme 3: Alternative Explanations for Gaming Problems

This theme refers to how participants explained problematic gaming when they disagreed with or rejected the addiction paradigm and language. For some, gaming was a personal choice (e.g., "*It is about individuals' preference for it that causes them to spend more time at it*"; "*It's a poor choice that can have negatives and positives*") or a parenting issue (e.g., "*I can see it in my children and have introduced limits for them as they get addicted*"; "*I think it's a parenting thing*"). Some proposed a new disorder (e.g., "*I think it is not actually a gaming disorder but simply a habit disorder*"), or believed that problem gaming was better explained by other disorders (e.g., "*Those suffering from so called 'problem gaming' symptoms are clearly engaged in coping mechanisms for depression, anxiety …*"; "*It is more about the person's mental health before they start than the gaming itself*"); or that problem gaming can be addictive but not a disorder (e.g., "*I think it is addictive, but would not describe it as a disorder*"). Similarly, some participants reported that games are not inherently problematic given its benefits (e.g., "*Gaming by itself is not bad*"; "*Games provide entertainment and escapism so naturally they will be used to relax*").

3.2. Theme 2: Culture and context of attitudes towards gaming

3.2.1. Subtheme 1: Hobbies as addictions

This theme refers to the comparisons of gaming to other hobbies or substance-related addictions. These comparisons were used by participants as a frame of reference in their judgement of whether gaming should be considered addictive. Some participants reported that anything could be an addiction, including hobbies like gaming (e.g., "*Gaming is like anything, it can become an obsession in a person's life*"; "*Gaming can be taken too far, just like many other things*"); other participants made parallels between gaming and substances (e.g., "*Gaming addiction is probably the same as smoking/drinking/drug addiction*"; "*Just like any drug*"). Many participants sought to clarify that gaming should not be considered judged as less worthy or valid as a form of recreation (e.g., "*I think gaming is as valid a hobby as watching movies, television, reading, or sports*"; "*I cannot understand how gaming can be considered any different to sitting and watching reality tv"*); or thought gaming did not share enough similarities to substance addictions to be considered addictive (e.g., "*I don't think the body is necessarily dependent on that unlike drugs*").

3.2.2. Subtheme 2: Attitudinal Change Over Time

This theme refers to participants' beliefs about how fixed or changeable social attitudes are towards people with gaming problems. Some participants expressed that perceptions of gamers may tend to be fixed or slow to shift following the introduction of a diagnostic category of GD (e.g., "*No, people are set in their ways*"; "*The real issues of public perceptions of gamers and gaming will only change with time*"). Some participants expressed that there had already been a cultural shift towards gaming, irrespective of growing recognition of GD, as gaming becomes an increasingly normalized hobby and technology becomes more accessible (e.g., "*Gaming is much larger now, and mostly everyone I know does some form of gaming, even the older people on their smartphones*"). A related reason was the significant uptake of gaming in the context of

COVID-19 restrictions where individuals sought out indoor hobbies (e.g., "*Everyone was asked to bunker down at home and not go out … I'm sure kids were playing a lot more videogames than usual*").

3.3. Theme 3: Stigma responses to gaming

3.3.1. Subtheme 1: Recognition of illness

Recognition of illness refers to participants' expectations of how the introduction of a diagnostic category would influence public perceptions of the prevalence of problem gaming and engaging in labelling people as having a disorder. This theme was understood in the context of the first stage of the stigma process and leads to the subsequent themes of stereotyping, affective responses, and interventions and helping behaviors or discrimination and avoidance. Participants discussed a diagnostic category for GD in terms of how it would increase awareness and understanding of problem gaming leading to increase early detection and taking steps to respond to these issues (e.g., "*People would start to realize that gaming disorder is really a serious problem"*; "*It would be helpful as it could detect the problem much earlier helping to prevent further damage*"). Some participants thought that a GD diagnosis would not affect attitudes or that the diagnosis would be rejected by members of the public (e.g., "*Putting a name to something does not change anything*"; "*I feel that there might be some pushback labeling it a mental health disorder*"). Participants had diverse views on the prevalence of GD (e.g., "*Increasingly more people are becoming addicted*"; "*I think "problem gamers" are so rare that it's not worth creating a diagnosis*"), or expressed concerns about how accurately GD would be diagnosed or judged (e.g., "*It can be hard to tell when a love of gaming has crossed into a danger zone*"; "*More people would think that all gamers are problem gamers*"). Participants also acknowledged the impact of recognizing GD on people suffering from problem gaming and felt that it would facilitate recognizing of their problems or cause reluctance to seek help (e.g., "*They would know what they are doing is wrong*"; "*I think it would make people afraid of seeking treatment because they might get a diagnosis*").

3.3.2. Subtheme 2: Stereotyping

This theme discusses the various prejudicial stereotypes regarding problem and non-problem gamers that participants endorsed as existing in the community. Some participants thought the category would be met with ridicule or be seen as an excuse for playing games too much (e.g., "*I think many people would laugh at that idea*"; "*It might give them an excuse for their behavior*"). Participants also referred to stereotypes about gamers, including being 'nerdy' or 'geeky', 'childish', 'useless', 'unambitious', 'lazy', 'a waste of time', 'lost' or 'without a life', and involved in 'rude', 'dangerous', and 'toxic' online behavior (e.g., "*Most of them are put into a general category of a nerd*"; "*Most of the public would look at it as though the gamer is being childish or lazy*"; "*Gaming has been unfairly associated with real world violence and antisocial behaviour*"; "*The general view on gaming disorder is that it is due to a lack of character*"; "*When I think of problem gamers I think of incels who hate women*"). Participants reported beliefs that certain groups may be more prone to holding negative attitudes towards gamers and gaming (e.g., "*stigma that is seen by older generations*"; "*People who don't game at all may potentially see it as more dangerous for the children*") and the role of the media in creating or maintaining negative attitudes (e.g., "*Gamers can get unfair representation in the media (likely to shoot someone because they game etc)*").

3.3.3. Subtheme 3: Affective responses

Affective responses refers to the emotional reactions towards people who game, often in response to stereotypes or as a precipitant of behavioral outcomes. Affective responses to gamers included feelings of sympathy or understanding towards problem gamers (e.g., "*Some people may be a little more understanding*"; "*I think it could make things worse because people wouldn't understand*"). Some participants expressed concerns that the diagnostic category may lead to increased frustration or fear towards problem gamers or gamers more generally (e.g., "*Labels can scare people*"; "*A separate diagnosis stands to foster paranoia and fear*"; "*Frustrations for family of problem gamers*"). Other participants felt that gamers may experience feelings of shame, embarrassment, or guilt (e.g., "*Possibly make non-problematic gamers feel ashamed to admit that they like to play videogames*"; "*Causing them more guilt feelings and feeling bad about themselves*").

3.3.4. Subtheme 4: Interventions and helping behaviors

This theme discusses the positive behavioral responses that participants anticipate occurring as a response to the GD or diagnosis. These behaviors related to treatment, including treatment accessibility, treatment seeking, an increase in specialized services, and health insurance would be more likely to assist with costs (e.g., "*I think official recognition would help, and mean that treatments were more easily accessible"*; "*Once it is classified I believe people would be more willing to seek help and offer help*"; "*This way they could seek specialized treatment*"). Outside of treatment practices, participants believed that the recognition of GD would lead to increased investments in research and education endeavors, and empowering problem gamers, and work or school-based supports (e.g., "*It might also lead to further research about non-drug/alcohol addictive tendencies*"; "*It may sound counterintuitive, but a diagnosis can be empowering*"; "*If it's diagnosed then it can be treated seriously*"). Some participants perceived a diagnostic category as a route to recovery while others felt the diagnosis would not affect treatment availability (e.g., "*Diagnoses can be a launch pad for personal change*"; "*The diagnosis would need to accompany treatment*"). Although some participants thought treating GD was important, others thought this might be misguided (e.g., "More help and support should be available"; "Pretending this is a separate condition 'gaming disorder' is a distraction") and described what type of treatment was appropriate (e.g., "*If there is some kind of medication to control the edge then it can be really helpful*"; "*Yes, but without the need of using drugs*"; "*Possibly, if it meant providing them therapy*").

3.3.5. Subtheme 5: Discrimination and avoidance

This theme discusses a range of negative behavioral outcomes and discriminatory acts that participants anticipate would occur following the introduction of GD. These outcomes included avoidance of gaming or gaming in secret, discrimination, treatment avoidance, or social isolation of problem gamers (e.g., "*It could cause people who play games to hide*"; "*Mental health diagnoses are often used against people too*"; "*I think it would make people afraid of seeking treatment because they might get a diagnosis*"; "*If we were to diagnose people with gaming disorder we would just outcast them*"). Some participants also highlighted involuntary treatment approaches (e.g., "*Locking people up in a hospital or being afraid of them seems really drastic"*; "*Counselling could be the way forward but forcing it would reverse the intended outcome*").

4. Discussion

The present study examined the perceptions of gamers and gaming among non-gaming members of the public. Gaming-related stigma was associated with terms such as lazy, childish, toxic, or useless. These stereotypes tended to focus on the negative characteristics of the individual and less frequently centered on the negative attributes of the activity (e.g., 'waste of time', 'dangerous for children'). Many participants thought the GD category would lead to greater reductions in stigma in the form of increased understanding, social supports, and increased treatment availability for problem gamers, while others were concerned that the category could lead to discrimination, avoidance, and further isolation of gamers. Interestingly, some highlighted the role of the media for perpetuating stigmatizing portrayals of people who game, and the gaming industry was seen as having a responsibility to mitigate gaming problems.

The present study found that most participants thought that problem gaming could be an addictive disorder (82%) and that the GD category would be helpful (63%), although there were more mixed views about

whether the GD category would change public perceptions of gamers or gaming. Perceptions of gaming as 'addictive' included references to perceived similarities with other hobbies or addictive substances. Participants who endorsed problem gaming as an addictive disorder highlighted features that distinguish problem gaming from non-problem gaming, such as loss of control and experiencing negative consequences due to gaming. The opposing view was that gaming problems were better explained as a symptom of another illness rather than its own disorder.

Participants reported key features of addictive disorders, identified these within gaming problems, and applied these to distinguish between problem and non-problem gaming. Some of the features of addiction highlighted by participants were consistent with the ICD-11 and proposed DSM-5 criteria for GD (American Psychiatric Association, 2013; King & Delfabbro, 2020; Petry et al., 2014). For example, participants recognized that merely spending lots of time gaming should not be considered sufficient to diagnose GD and that an individual should experience negative consequences from their gaming. Some participants highlighted the role of the gaming industry in the development of GD due to features of video games such as gambling mechanisms, loot boxes, and achievement structures. This was consistent with past literature that has reported that games and social media are designed to increase engagement and prolong use (Montag et al., 2019; Mujica et al., 2022). On the other hand, many participants argued that problem gaming may be better explained as a choice or as a symptom of another illness like anxiety disorders, mood disorders, or gambling disorder rather than as a separate and distinct addictive disorder. GD as a possible symptom of other illnesses has been a feature of academic literature regarding the disorder's validity (Bean et al., 2017) as well as a consideration for internet use problems (Wölfling et al., 2015). The idea that GD is a symptom of other illnesses has some consistency with research that emphasizes GD's common comorbidities with many of the disorders mentioned (Burleigh et al., 2019; González-Bueso et al., 2018).

Participants indicated that the formation of their opinions regarding the disease status of problem gaming was informed by comparisons to addictions and hobbies and the perceived threshold for defining an addiction. These judgements of GD as an addiction or its disease status may relate to a process for accepting other behavioral addictions. For example, past research has demonstrated there is a negative association between endorsing substance use disorders as a real disease and stigma (Lanzillotta-Rangeley et al., 2021). These comparisons of gaming to other activities or addictions may also inform the severity of stigma a person holds based on whether they consider gaming like a hobby, such as reading, which has not been associated with stigma, or like an addiction, such as alcohol, which tends to be stigmatized (Kilian et al., 2021). Attitudes regarding the credibility of GD as an illness could affect stigma perceptions and, consequently, may inform future intervention strategies. For example, endorsing addiction as a disease has been related to reductions in blame and increased perceptions of the addiction as inherent with a poor prognosis (Haslam & Rothschild, 2000). Consistent with other research, participants acknowledged that attitudes may change over time irrespective of a diagnostic category, as cultural attitudes change (Earnshaw et al., 2022) and gaming becomes increasingly normalized and accepted.

On the one hand, some participants were concerned about the negative consequences of the GD category. This included the possibility that the GD category would lead to over-diagnosis of recreational gamers or public rejection of legitimate GD diagnoses. Gaming was perceived to be associated with negative and prejudicial responses which may be exacerbated by a diagnostic category, such as being perceived as lazy, childish, toxic, or useless. This exacerbation of prejudice is consistent with concerns in academic debates that the GD category might lead to moral panic about video gaming (Kardefelt-Winther, 2014; Markey & Ferguson, 2017; van Rooij et al., 2018). Consistent with past research on individuals that associate gaming with aggression (Przybylski, 2014), participants tended to report that older adults and people who do not play video games would be more likely to be prejudiced towards gamers. On the other hand, some participants thought that a GD diagnosis would be beneficial, reducing stereotypes such as blame towards people who experience problem gaming and increasing positive behavioral outcomes such as available treatment and social supports. This is consistent with social—cognitive models of stigma, such as Attribution Theory, which are used to understand stigma towards mental illnesses (Corrigan et al., 2003). Many stigma-related issues discussed by participants mirrored discussions of the merit of a diagnosis for problem gaming that have occurred among academics (Aarseth et al., 2017; Bean et al., 2017; Division 46 Committee, 2018; Dullur & Starcevic, 2018; Kardefelt-Winther et al., 2017; King et al., 2018; Markey & Ferguson, 2017; Quandt, 2017; Van Den Brink, 2017).

The media was noted as having a role in creating negative attitudes towards gamers, highlighting a possible factor that maintains stigma towards gamers and which could affect public health messaging aimed at reducing stigma. This is consistent with Cultivation Theory which posits that the media plays a role in forming cultural norms (Bryant & Miron, 2004), and past research which has demonstrated that media consumption is related to support for policies on substance use (Wild et al., 2021). Although the study by Wild et al. (2021) focused on how the media could have positive influences in reducing stigma by emphasizing harm reduction strategies for people who inject drugs, participants in the present study had more negative views of the impact of the media on stigma towards people who play video games. The negative portrayal in the media of people who play videogames has been highlighted by Bergstrom et al. (2016), who reported similar stereotypes to those identified in the present study and noted that the media has linked violent crimes to video games. Similarly, a review by Wahl (2002) reported the media was a possible contributing factor for negative attitudes among children towards mental illness. This theme highlights the media as a possible maintaining factor for gaming stigma, and the key stereotypes to be addressed by intervention programs.

Participants reported that emotional and behavioral responses to the recognition of GD would vary from increased sympathy and helping behaviors, to increased frustration, fear, avoidance, and discrimination, and the rejection of certain treatment approaches. Participants' responses demonstrated the process of identifying and recognizing gaming problems in stereotyping, emotional responses, and behavioral reactions, which was consistent with the social–cognitive models of self and public stigma (Corrigan, 2000; Corrigan et al., 2003, 2009). Participants also anticipated that the GD category would assist gamers in recognizing when they have a problem. However, descriptions of gamers' responses to the GD category highlighted obstacles to treatment seeking in the form of *label avoidance*. Label avoidance is a stigma concept that explains that people avoid treatment providers to avoid being labelled as suffering from a mental illness (Corrigan & Wassel, 2008).

4.1. Future directions

Qualitative research is limited in the behavioral addictions field, despite its potential to provide more personal insights into the experiences of problem gamers. This study highlights gaps in research for GD related stigma intervention programs, such as advocacy interventions which emphasize social justice issues (e.g., Brown & Russell, 2019) which have been examined in gambling disorder research by focusing on the gambling industry's role in problem use. Many participants emphasized the role of gaming design and industry practices in explaining problem gaming. The alternative explanations for problem gaming suggest that some people who disagree with the GD category make negative attributions of people who experience gaming problems, such as describing GD as 'making excuses'. In this way, further studies could investigate how perceptions of problem gaming as a disease impact on stigma-related beliefs. As recommended by Stutterheim and

Ratcliffe (2021) qualitative research can be used to inform stigma reduction initiatives, guided by the specific stereotypes and negative behavioral outcomes identified in this study as points to be addressed by an intervention program. Additionally, future work could investigate whether perceptions of the helpfulness of the GD diagnosis may relate to broader views about health and medical systems as distinct from perceptions of gaming activities. For example, participants often associated diagnosis with helping or discriminating behaviors and these associations might be moderated by overall trust in the medical system, as many participants reported what they perceived to be the correct treatment for GD. The stereotypes and behavioral responses identified, that are specific to people who game, could inform adaptations of stigma measures for future quantitative studies on gaming disorder. For example, stigma measures do not typically consider gaming specific stereotypes like 'nerdy' or 'geeky', 'childish', 'without a life', or 'toxic' which may be more relevant stereotypes to consider.

4.2. Limitations

The present study had several strengths, including a large sample size with low attrition and strong engagement with the open-ended question format. However, there were several limitations. The online survey format did not include probes and follow-up questions to expand on participant perspectives. The self-report survey format may also be susceptible to self-report biases such as socially desirable responding and fail to capture unconscious stigmatizing attitudes. The findings relate to the perceptions of people aged 35–50 years from predominantly Western countries who played videogames infrequently. Therefore, the findings may not generalize to other age groups, cultures, or different levels of gaming engagement and may be further limited due to the use of online sampling. Furthermore, participants made few references to differences in gender of gamers or differences between gaming as a hobby or for work. Therefore, our understanding of attitudes towards different groups of gamers is limited in this work. Additionally, as Roberts et al. (2020) describe, the personal identities of authors can influence research analyses and interpretation.

4.3. Conclusions

The present study found that gaming stigma can involve negative stereotypes about gamers including the view that people who game are lazy, childish, toxic, or useless. This study identified the myriad views that constitute some of the public understanding and levels of support for the GD category and its relationship to stigma. Public opinion and attitudes are diverse regarding support for the GD category and its social implications. This research highlights that concerns about the GD category may stem from the view of gaming as a personal choice and not a pathology. Some participants were concerned that the GD category may make some problem gamers reluctant to seek treatment due to an increase in stigma and a desire to avoid being labelled as having a mental illness. These findings highlight the important role of the media in perpetuating or reinforcing negative stereotypes, and the perceived role of the gaming industry at the level of responsibility for the gaming product. A practical implication is that public messaging focused on promoting the legitimacy of gaming disorder should recognize and distinguish the healthy aspects of gaming. Future qualitative work should involve problem gamers to better understand their experiences of self-stigma, including how this relates to their understanding, expectations, and potential misgivings in relation to treatment.

CRediT authorship contribution statement

Christina R. Galanis: Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization. **Daniel L. King:** Writing – review & editing, Writing – original draft, Supervision, Funding acquisition, Formal analysis, Data curation, Conceptualization.

Authorship

Both authors contributed to conceptualization, data collection, analysis, methodology, and writing.

Data availability

The data that support the findings of this study are available from the corresponding author upon request.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.chbr.2024.100581.

Data availability

Data will be made available on request.

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