Current Addiction Reports
https://doi.org/10.1007/s40429-022-00437-4

GAMBLING (L CLARK, SECTION EDITOR)

Gambling Disorder and Stigma: Opportunities for Treatment and Prevention

Leanne Quigley[1]

Accepted: 21 August 2022

Abstract

Purpose of Review Gambling disorder is among the most stigmatized mental health problems. More research is needed to understand the mechanisms that underlie this stigma and the effects of stigma-reduction interventions. This paper reviews extant literature on the stigma of gambling disorder and highlights evidence from this research and the broader mental illness stigma literature to help advance research on the prevention and reduction of gambling-related stigma.

Recent Finding The public stigma of gambling disorder includes stereotypes of affected individuals as "greedy" and "irresponsible," beliefs that affected individuals are to blame for their problems, and desire to avoid social contact with affected individuals. Stigmatizing attitudes held by the public are often internalized by individuals with gambling disorder, which leads to problem concealment, reduced treatment-seeking, and decreased self-esteem. Women with gambling disorder, as well as those with more severe gambling problems and who perceive greater stigma by the public, are most vulnerable to self-stigma. There is evidence that certain beliefs may underlie the stigmatization of gambling disorder, including beliefs about its causes. Contact- and education-based interventions show efficacy for the reduction of mental illness-related stigma more broadly; additional research is needed to determine the efficacy of various stigma reduction strategies for gambling disorder specifically.

Summary Gambling disorder is highly stigmatized relative to other mental health problems, in part because it is viewed as more likely to be caused by controllable factors. Interventions that emphasize the biopsychosocial etiology of gambling disorder may help to prevent and reduce the blame and stigmatization of affected individuals. Structural stigma within domains such as legislation, healthcare, and the gambling industry, interventions to reduce self-stigma, stigma among mental health professionals, and the influence of culture on stigma and its reduction are critical issues for future research.

Keywords Stigma · Public stigma · Self-stigma · Stigma reduction · Gambling disorder

Introduction

Gambling disorder is defined in the fifth edition of the *Diagnostic and Statistical Manual* (DSM-5; [2]) as a persistent and recurrent pattern of gambling that causes functional problems or distress for the affected individual. Gambling disorder is classified as an addictive disorder in the DSM-5, along with alcohol and other substance use disorders, which is a change from prior editions of the DSM that classified gambling disorder as a disorder of impulse control. The lifetime prevalence of gambling disorder is estimated to be about 0.5% in the USA and between 0.5 and 2% in other countries such as the UK, Australia, Hong Kong, and Canada [50, 63]. There is evidence that rates of both problematic and recreational gambling may be declining in Western countries, which is thought to be due to the public's increased knowledge of gambling-related harms and the decreased novelty of legal gambling [1, 63]. However, this trend may not apply to other parts of the world, where legal gambling is less accessible and established [65]. Overall gambling frequency and rates of gambling disorder have further decreased along with the closure of casinos and other in-person gambling venues due to the COVID-19 pandemic [29]. However, a subset of people, who tended to have more

This article is part of the Topical Collection on *Gambling*

✉ Leanne Quigley
leanne.quigley@yu.edu

[1] Ferkauf Graduate School of Psychology, Yeshiva University, Bronx, NY, USA

Published online: 03 September 2022

severe gambling problems and were younger in age, reported that they increased their gambling during the pandemic [29].

Individuals with gambling disorder often suffer serious consequences, including financial loss, damage to relationships, mental and physical health problems, and impairment at work [36]. Despite its harms to those affected, gambling disorder is associated with a low rate of help-seeking [50]. Only about one in 10 people with gambling problems seeks treatment, and by that time, they have typically suffered from symptoms for 7 to 10 years. Effective psychological treatments for gambling disorder exist, including cognitive-behavioral therapy (CBT) and motivational interviewing [55, 66]. However, individuals with gambling problems report significant barriers to help-seeking, with a desire to manage the problem on one's own and shame and fear of stigma among the most cited [21]. Indeed, stigma has been robustly associated with reduced treatment-seeking for mental health problems more broadly [56].

The purpose of this paper is to provide a narrative review of the literature on the stigma associated with gambling disorder. Findings from research on attitudes towards gambling disorder in the general public are reviewed to provide an understanding of the nature and extent of public stigma of gambling disorder relative to other health conditions. Possible mechanisms underlying the public stigma of gambling disorder, and the empirical evidence for these mechanisms, are discussed. Next, research on the internalization of negative attitudes by individuals with gambling disorder (i.e., self-stigma) is reviewed, along with findings on the predictors and consequences of self-stigma. Finally, literature relevant to changing the stigma of gambling disorder is reviewed, including experimental studies of the effects of causal explanations and labels on stigmatizing attitudes and evaluation of stigma reduction interventions. Given the limited extant research on stigma reduction interventions for gambling disorder specifically, findings from the broader literature on the reduction of mental illness- and addiction-related stigma are evaluated for their potential applicability to gambling disorder.

Stigma of Gambling Disorder

Stigma involves negative evaluations and attitudes about a condition, leading to status loss and discrimination of affected individuals [22]. An influential model of stigma proposes that stigma occurs through a process of identifying and labeling differences among persons, assigning negative stereotypes to labeled persons, categorizing labeled persons as distinctly separate from those considered "normal," and devaluing and discriminating against labeled persons [39]. Different forms of stigma have been distinguished in the literature [12]. Public stigma refers to the negative attitudes and judgments about a condition that are endorsed by the general population and manifests as a desire to maintain social distance from affected individuals. People report low desire to live near, work with, or be in a close relationship with individuals with a stigmatized condition. When public stigma affects societal institutions and policies, it results in structural stigma and discrimination. The broader mental health-related stigma literature shows that individuals with mental health problems are less likely to obtain rental housing, be hired by employers, and receive appropriate health services and insurance benefits [11]. Perceived stigma is a closely related construct to public stigma and refers to one's beliefs about how a condition is viewed and evaluated by others, which may or may not differ from one's personal views. When an affected individual perceives and is aware of the negative attitudes held by the general public towards them, they may begin to internalize those beliefs. Self-stigma refers to the internalized negative stereotypes, devaluation, and shame by individuals with stigmatized conditions, leading to a loss of self-esteem, social withdrawal, and psychological distress [13].

Public and Structural Stigma of Gambling Disorder

Even relative to other mental health problems, which are highly stigmatized in general [12, 41], public attitudes towards gambling disorder are particularly negative. For instance, gambling disorder has been found to be more stigmatized than depression and obsessive–compulsive disorder [52•]. In separate samples of university students and members of the general public, respondents reported greater desire for social distance, more negative stereotypes, and greater beliefs of devaluation and discrimination for individuals with gambling problems relative to individuals with depression or obsessive–compulsive disorder. Commonly endorsed stereotypes of people with gambling problems include that they are irresponsible and greedy [30, 64]. In general, gambling disorder appears to elicit roughly similar levels of desired social distance as alcohol use disorder and schizophrenia [31,52•], but see [28]. Thus, certain mental health problems are stigmatized more than others, and gambling disorder is among the most stigmatized, but why is this the case?

Attribution theory [61, 62] offers a possible explanation for why certain mental health disorders are more stigmatized than others. Attribution theory posits that the more a condition is believed to be caused by controllable factors, the more stigma it will attract. Accordingly, the dominant causal attributions for a condition should predict the degree to which it is stigmatized, with causes viewed as largely uncontrollable (e.g., genetics, biology, adverse experiences in childhood) associated with less stigma and causes viewed as more controllable (e.g., character flaw) associated with greater

stigma. Relatedly, Haslam et al. [23] proposed a framework for how the general population understands mental disorders, distinguishing between moralizing, medicalizing, and psychologizing explanations. Moralizing explanations view the behavior of individuals with mental disorders to be intentional and due to bad character or a failure to exercise self-restraint and will power. Moralizing explanations also include views of the affected person's behavior as sinful or criminal. When mental disorders are understood according to moralizing explanations, the affected individual is blamed and criticized for their condition. Medicalizing explanations view mental disorders as the uncontrollable manifestation of a biological or genetic pathology. Biomedical explanations are thought to be beneficial for stigma reduction because they deflect blame away from the affected individual, consistent with attribution theory [35, 38]. However, researchers have observed that beliefs in biomedical causes are also associated with essentialism (i.e., the belief that the cause is fundamental and unchangeable) and thus greater pessimism about prognosis and treatment [35, 38]. Lastly, psychologizing explanations view mental disorders in terms of emotional and motivational factors that are not fully conscious and are influenced by a person's personality, developmental history, family dynamics, and life experiences [23].

Research on the stigma of gambling disorder has found some support for the role of causal attributions in explaining its high level of stigmatization. People tend to believe that bad character and stressful life circumstances are more likely causes of gambling disorder than schizophrenia [28, 31]. In contrast, people rate gambling disorder as less likely than schizophrenia to be due to genetics and chemical imbalance. Thus, people tend to attribute gambling disorder more to controllable causes (i.e., bad character) and less to uncontrollable causes (i.e., genetics, chemical imbalance) relative to schizophrenia, consistent with a moralizing view of gambling disorder and a medicalizing view of schizophrenia. Likewise, in Quigley et al. [52•], gambling disorder was rated as less likely to be due to biological causes than depression and obsessive–compulsive disorder. However, respondents also rated several other causes of varying degrees of controllability as less likely for obsessive–compulsive disorder relative to gambling disorder (e.g., existential, interpersonal conflict, intimacy, achievement, relationship) and as more likely for depression and alcohol use disorder relative to gambling disorder (e.g., interpersonal conflict, intimacy, childhood, relationship), suggesting important nuances in respondents' beliefs about the causes of various mental health problems. Importantly, causal attributions for gambling disorder have been shown to predict stigmatizing beliefs [27, 28]. Consistent with attribution theory, Hing et al. found that greater belief in bad character and less belief in stressful life circumstances, genetics, and a chemical imbalance as causes of gambling disorder were associated with greater desired social distance from individuals with gambling disorder.

Another factor that has been explored as a predictor of stigma, both in the broader stigma literature and in relation to gambling disorder specifically, is beliefs about dangerousness [8]. Overall, people seem to believe that individuals with gambling disorder are unlikely to be dangerous or cause harm to others and that they are less dangerous than those with schizophrenia or alcohol use disorder [28, 31]. However, individuals with gambling disorder are viewed as more dangerous, and more likely to cause harm to others or themselves, than those with obsessive–compulsive disorder, compulsive buying disorder, and various control conditions (e.g., asthma, subclinical distress, recreational gambling) [28,52•]). Moreover, beliefs about dangerousness predict desired social distance. For gambling disorder as well as other conditions like schizophrenia and alcohol use disorder, the more dangerous that a person believes affected individuals to be, the more social distance they wish to maintain [27, 28, 31]. Beliefs about dangerousness may explain why gambling disorder and schizophrenia elicit roughly similar levels of stigma despite people's tendency to view gambling disorder through a moralizing lens and schizophrenia through a medicalizing lens. Although people believe that schizophrenia is more likely to be caused by uncontrollable (i.e., biological and genetic) factors than gambling disorder, they also believe that individuals with schizophrenia are more dangerous than those with gambling disorder. Thus, these opposing influences on levels of desired social distance may cancel out overall differences in stigmatizing attitudes towards the two conditions.

As noted, studies have shown that gambling disorder elicits similar levels of desired social distance as alcohol use disorder, suggesting similarity in the stigmatization of addictions, whether behavioral or substance-related [31, 52•]. Like gambling disorder, substance use disorders are stigmatized to a greater degree than other psychiatric disorders (see [68] for a review). Moreover, individuals with substance use disorders are viewed as more to blame for their condition and more dangerous and unpredictable than individuals with other psychiatric disorders, consistent with the proposed role of causal attributions and beliefs of dangerousness in eliciting stigma, as discussed above. Nonetheless, there may also be some distinctions in how the public views gambling disorder relative to substance use disorders. For instance, both Quigley et al. [52•] and Hing et al. [28] found that gambling disorder was perceived as less likely to be due to genetic or biological causes, childhood upbringing, and life/interpersonal stressors than alcohol use disorder. Relative to alcohol use disorder, respondents rated gambling disorder as less visible in both studies and as less dangerous but more disruptive in Hing et al. Another study by Konkolÿ Thege et al. [32] compared public perceptions of behavioral addictions

(including gambling) and substance-related addictions and found that addiction liability and character flaws were the most important discriminating features, with the former attributed more to substances and the latter associated more with behavioral addictions. Thus, there may be both similarities and differences in the stigmatization of gambling disorder and substance use disorders, such that individuals with gambling disorder are perceived as more blame-worthy due to the greater addiction liability of substances but individuals with substance use disorders are perceived as more dangerous.

There is no research that has explicitly measured structural stigma related to gambling disorder. However, there is a small literature on the structural stigma of mental illness more broadly, highlighting how public attitudes are embedded in cultural norms and institutional policies (see [51] for a review). Structural stigma related to mental illness has been identified in the domains of legislation (e.g., restriction of rights, inadequate protection from discrimination), healthcare, the criminal justice system, and the media. Although the limited existing research is primarily descriptive, there is also preliminary evidence that levels of structural stigma in a society correspond to levels of self-stigma and perceived discrimination at the individual level and are associated with negative health outcomes [20, 24]. It is likely that structural stigma related to gambling disorder similarly exists in various domains and has negative consequences for the well-being of affected individuals. In addition to investigating structural stigma and its impact in legislative, health care, criminal justice, and media domains, future research should consider structural stigma within the gambling industry. For instance, industry and government campaigns that promote "responsible gambling" may contribute to blame, negative stereotypes, and stigma of individuals with gambling disorder by emphasizing personal responsibility for problems [44].

Perceived and Self-Stigma of Gambling Disorder

Although distinct constructs, the existence of public stigma directly affects perceptions of stigma. In turn, when affected individuals perceive the stigmatizing attitudes held by society towards their condition, they may develop self-stigma, characterized by the internalization of those attitudes and belief in negative stereotypes about themselves [10, 12]. The development of self-stigma is one of the major harms of public stigma of mental health problems, as self-stigma among affected individuals can erode self-esteem and self-efficacy, lead to social withdrawal, and reduce help-seeking and engagement in treatment [13, 40].

Both qualitative and quantitative studies have confirmed that individuals with gambling problems perceive high levels of stigma by the general public [25, 26]. Individuals with gambling disorder report the belief that other people think they are to blame for their condition [25]. Thus, the perceptions of stigma among individuals with gambling disorder are largely consistent with the results from research on public stigma and suggest that these individuals accurately perceive how others view their condition. Individuals who perceive greater stigma and who have more severe gambling problems tend to endorse greater levels of self-stigma [3, 26]. Moreover, self-stigma is associated with lower self-esteem and reduced help-seeking among individuals with gambling disorder [3, 26, 47], as reported in the broader mental health stigma literature. These results are consistent with a process whereby more severe gambling problems and greater perceptions of stigma lead to more internalized shame and poorer self-image, which in turn discourages individuals from seeking treatment. In a comparative study in Korea, individuals with gambling disorder reported higher levels of self-stigma, including alienation and endorsement of stereotypes, than individuals with schizophrenia and alcohol use disorder [47]. Thus, it appears that individuals with gambling disorder are highly vulnerable to internalizing negative societal attitudes, although additional research is needed to examine whether the results replicate in other geographical and cultural contexts. In addition, there is evidence that women with gambling disorder are particularly sensitive to the perception and internalization of stigma [3, 14, 15, 26], indicating a need for interventions that specifically address the self-stigma of this demographic.

People with gambling disorder often conceal their problem to avoid rejection and criticism from others [14, 15, 25]. Indeed, secrecy is the most commonly cited coping mechanism for stigma reported by individuals with gambling problems in qualitative research [25]. Furthermore, use of secrecy as a coping strategy is highest among individuals with higher levels of self-stigma [26]. As noted by Hing and Russell [26], secrecy exacerbates negative consequences for individuals with gambling problems, by delaying or discouraging treatment-seeking and recovery and causing added psychological distress due to the perceived need to keep their problem hidden. Although individuals with gambling disorder do not appear to engage in as much stigma resistance or challenging of stigmatizing attitudes relative to individuals with other disorders, stigma resistance is associated with higher self-esteem [47]. Thus, coping with stigma by resisting and challenging stigmatizing attitudes may be protective for the well-being of individuals with gambling disorder, or it may be that individuals with higher self-esteem are better able to challenge stigma.

Changing the Stigma of Gambling Disorder

Ultimately, research on the experience and nature of stigma aims to inform and improve stigma reduction efforts. The research reviewed thus far underscores the need to address both public stigma and self-stigma, and likely structural stigma, related to gambling disorder and points to high priority needs such as the reduction of self-stigma among women with gambling disorder. Correlational research findings indicate that beliefs about the origins of mental disorders and dangerousness may underlie public stigma, suggesting that these may be target beliefs for stigma reduction interventions. Moreover, self-stigma among individuals with gambling disorder appears to be predicted by levels of perceived stigma and self-esteem, although the direction of these relationships is unclear. Efforts to reduce self-stigma should also address secrecy and problem concealment, which are common mechanisms for coping with self-stigma among individuals with gambling problems and lead to negative outcomes. Building upon these correlational studies, a few studies have used experimental designs to evaluate the causal effect of certain factors on stigmatizing attitudes and the efficacy of stigma reduction interventions for gambling disorder.

Lebowitz and Appelbaum [37•] examined the causal effects of genetic explanations of gambling disorder and alcohol use disorder on treatment expectancies, blame, and perceived agency and self-control in a general public sample. Participants who received a genetic explanation assigned less blame to the affected individual than participants who received a non-genetic explanation. Participants who received a genetic explanation also rated the affected individual as less likely to benefit from psychotherapy and more likely to benefit from medication and as having less agency and control over their behavior than participants who received a non-genetic condition. The observed effects did not differ between gambling disorder and alcohol use disorder, suggesting that genetic explanations have similar effects for behavioral and substance addictions. Reducing blame through genetic and biochemical explanations may be particularly beneficial for addictions and especially behavioral addictions like gambling disorder, which are highly stigmatized and comparatively more likely to be attributed to character flaws than other mental health problems (e.g., [32]. Reduced blame may in turn lead to reductions in other aspects of stigma, such as desired social distance and discrimination, although these outcomes were not examined in this study. However, genetic explanations of gambling disorder can also have negative effects, as observed on beliefs about psychotherapy efficacy and the personal agency and self-control of affected individuals. Moreover, it has been argued that biogenetic (i.e., "brain disease") models of addictions are problematic in that they face conceptual and empirical challenges to their validity and perpetuate moralism about addiction [49]. Taken together, it seems prudent to educate people about biopsychosocial explanations of gambling disorder and other addictions, including more sophisticated explanation of the role of genes and gene-environment interactions in vulnerability, which may help to counteract the potential harms of simplistic genetic explanations and are likely more accurate models of the etiology of addiction.

A couple studies have investigated the effects of labeling on stigma of gambling disorder, based on the premise that labeling of conditions is thought to contribute to separation and stigmatization [39]. In the broader mental health literature, specific psychiatric disorder labels (e.g., "schizophrenic," "depression") have been found to elicit more negative reactions from participants relative to general psychiatric labels (e.g., "consumer of mental health services," "mental health problems") [48, 57]. However, Quigley et al. [52•] observed that the terms "problem gambling," "pathological gambling," "gambling disorder," and "gambling addiction" elicited similar attitudes and levels of stigma in both university student and general public samples. Moreover, Palmer et al. [46] found that a general public sample reported no difference in attitudes, emotional reactions, and level of desired social distance in response to a vignette that described a person with "gambling disorder," along with the corresponding behaviors and symptoms, compared to a vignette that described the same behaviors and symptoms without the label. Taken together, these findings suggest that public stigma of gambling disorder is influenced by perceptions of its symptoms and behaviors rather than the particular label used to describe the condition. Consequently, changing the terminology of gambling disorder is unlikely to eliminate public stigma, and stigma reduction efforts must address the content of people's beliefs about gambling disorder. Still, the lack of label effects on public stigma does not imply that terminology and language are unimportant in communicating about gambling disorder and other addictions. Terminology and language may influence self-stigma, which was not examined in the above studies. Furthermore, aspects of language other than diagnostic labels, such as the use of person-centered versus disorder-centered language (e.g., "person with a gambling disorder" versus "disordered gambler"), may influence public and/or self-stigma [59].

Interventions that aim to change people's beliefs about stigmatized conditions generally fall into three categories: contact, education, and advocacy [9]. Contact interventions involve creating opportunities to interact with individuals with the stigmatized condition. Education interventions involve presenting information to counteract stereotypes and correct misunderstandings of the stigmatized condition.

Advocacy interventions aim to emphasize societal causes of stigmatized conditions and shift blame from the individual to society. Systematic reviews and meta-analyses on the reduction of mental health-related stigma more broadly suggest that interventions that involve social contact, whether actual or filmed, are most effective for reducing stigmatizing attitudes, perhaps due to their superior ability to elicit empathy and disconfirm stereotypes [58]. However, education-based interventions are also common and demonstrate efficacy for improving mental health knowledge and reducing stigma, and interventions that combine social contact and education by professionals may be particularly beneficial [9, 60]. The relative efficacy of intervention strategies may also differ across demographic subgroups. For instance, Corrigan et al. [9] concluded that contact was superior to education for reducing stigma among adults, whereas education was superior to contact for adolescents. Although more limited, the literature on the reduction of stigma related to substance use disorders similarly suggests that contact- and education-based interventions have positive effects on addiction-related stigma among the general public and treatment providers [4, 42].

A major limitation of the mental health stigma reduction literature is the lack of studies that investigate long-term effects [58]. A systematic review that focused on studies with a follow-up of more than 4 weeks concluded that effects on stigmatizing attitudes were small and inconsistent and did not find evidence for the superiority of social contact-based interventions [43]. A study of the long-term effects of a filmed social contact intervention found that improvements on mental health knowledge and behavioral intentions were largest 1 month after the intervention and declined over the 24-month follow-up [67]. Moreover, there were no effects of the social contact intervention relative to online self-study and non-active control conditions on actual behavior at any assessment point. These data suggest that more intensive interventions or repeated doses (i.e., "boosters") may be needed to sustain benefits and point to the need for assessment of long-term and behavioral effects in stigma reduction research.

Although research on the reduction of mental health related stigma more broadly can help to inform stigma reduction for gambling disorder specifically, generalization of results cannot be assumed. As previously discussed, comparative research on the stigmatization of gambling disorder relative to other mental health conditions indicates important differences in how people view and understand different addictions and mental health disorders, which have implications for how stigma may be most effectively addressed [28, 31, 52•]. Unfortunately, very little is known about the efficacy of different intervention approaches for the reduction of stigma related to gambling disorder. In a recent study, Brown and Russell [5•] found that video interventions based on contact, education, or advocacy approaches had differing effects across various stigma-related outcomes. After viewing the video, participants in the contact intervention condition rated gambling disorder as less concealable and more disruptive, rated persons with gambling disorder as more dangerous to others, reported greater pity and less fear of persons with gambling disorder, desired greater social distance from persons with gambling disorder, and rated stressful life circumstances as a more likely cause of gambling disorder. Participants in the education condition reported less anger towards persons with gambling disorder and endorsed fewer negative stereotypes. Participants in the advocacy intervention condition rated gambling disorder as less recoverable and less likely caused by bad character, reported less anger towards persons with gambling disorder, and reported reduced beliefs of status loss and discrimination.

Brown and Russell's [5•] findings suggest that in contrast to positive conclusions from the broader mental illness stigma literature, caution is warranted in using contact interventions to reduce stigma of gambling disorder. Despite featuring individuals who had experienced gambling problems and had mostly recovered, the contact video produced several unfavorable changes, notably the increases in beliefs in dangerousness and desired social distance. On the other hand, contact interventions can vary widely, and effects may depend on the type of contact and the individuals featured. The decreased feelings of anger and attributions of bad character in the advocacy condition may reflect the intended shift of blame for gambling problems from the individual to the gambling industry and governments. However, participants in the advocacy condition also perceived gambling disorder as less recoverable after watching the video, which suggests that it may be important to present information about effective treatments for gambling disorder in addition to targeting blame of individuals.

Future Directions in Preventing and Reducing the Stigma of Gambling Disorder

Much work remains to be done to better understand and reduce the stigma of gambling disorder. Additional studies are needed to compare intervention approaches on a variety of stigma-related outcomes. It is likely that the most effective stigma reduction interventions will combine different strategies, such as presenting information about genetic and biochemical contributions to addiction and the role of the gambling industry and government in targeting and/or failing to protect vulnerable populations, while also emphasizing the interaction of environmental and psychological factors with genetic and biochemical vulnerabilities and the effectiveness of existing psychological treatments.

Such combined interventions may help to reduce blame and stigmatization of individuals with gambling disorder while also encouraging treatment-seeking and optimism about recoverability. In investigating the efficacy of interventions to reduce the stigma of gambling disorder, it will be important to heed the calls of stigma researchers in the broader literature to evaluate the long-term effects of interventions as well as behavioral outcomes and other real-world indicators of effectiveness, in addition to self-reported attitudes and knowledge [58].

Future research should also expand the targets for stigma reduction beyond the public stigma of gambling disorder. Research on the social structures that perpetuate stigma of gambling disorder and the effects of structural stigma on community- and individual-level outcomes is needed to inform policy change and structural interventions. Efforts to directly address self-stigma among individuals with gambling disorder are also critical, given that higher self-stigma is associated with reduced likelihood of seeking treatment and deterioration of self-esteem [3, 26, 47]. There is preliminary evidence that CBT techniques may be effective for reducing self-stigma through improving self-esteem and empowerment and developing skills for coping with and cognitively reappraising stigmatizing attitudes [45]. As CBT is the most commonly used psychological intervention for gambling disorder, an explicit focus on addressing self-stigma could be readily incorporated into existing treatments [19]. Treatment providers should also be aware of, and sensitive to, the increased severity and consequences of self-stigma among female patients with gambling disorder [3, 14, 15, 26].

Relatedly, stigmatizing attitudes among mental healthcare professionals are understudied relative to public stigma. In the broader mental health literature, it has been found that negative and stigmatizing beliefs about people with mental illness are prevalent among healthcare professionals, particularly towards people with active addictions [54]. Moreover, even among mental health professionals who self-report positive explicit attitudes towards individuals with mental illness, negative attitudes towards mental illness are observed on implicit measures [33]. Although little is known about stigma of gambling disorder specifically among mental healthcare professionals, one study reported a tendency among French and Finnish addiction treatment professionals to blame the individual for their gambling addiction [34]. Given that stigmatizing attitudes among treatment providers may lead to structural stigma, including lack of access to services and poorer quality care, and discourage future treatment-seeking among patients, it is imperative to learn more about the prevalence and nature of such attitudes related to gambling disorder. Subsequently, studies may evaluate stigma reduction interventions for mental healthcare professionals and/or trainees. In these studies, assessment of both explicit and implicit stigmatizing attitudes will be important, given prior observation of a dissociation between explicit and implicit attitudes, and to control for potential social desirability effects.

Finally, the influence of culture on stigma related to gambling disorder and the efficacy of various stigma reduction approaches warrants further investigation. Research has found that race/ethnicity is a consistent predictor of differences in stigma and negative beliefs about individuals with mental illness [7, 53]. Although there is limited evidence on racial/ethnic differences on stigma of gambling disorder specifically, preliminary findings corroborate those from the broader mental illness stigma literature [16, 18, 31]. Furthermore, the effects of genetic and social explanations for mental illness on stigma-related outcomes have been shown to differ across Asian and European Americans [6], suggesting that race/ethnicity and culture may influence the effects of interventions aimed at changing stigmatizing attitudes. Understanding the mechanisms by which race/ethnicity and culture lead to differences in the stigmatization of gambling disorder is critical. In the broader mental illness stigma literature, cultural orientation (i.e., individualism vs. collectivism beliefs) and political beliefs have been identified as potential mediators of the relationship between race/ethnicity and stigma [17]. Other factors specific to gambling disorder, such as variation across countries in gambling regulation, accessibility, and acceptance, should also be considered in research on racial/ethnic and cultural differences in stigma of gambling disorder. Improved understanding of the explanatory mechanisms of disparities in stigma and attitudes towards gambling disorder will facilitate the development of culturally sensitive interventions to prevent and reduce stigma.

Conclusion

Gambling disorder is highly stigmatized by the general public, even relative to other mental health conditions. Specifically, people tend to hold stereotypes of individuals with gambling disorder as being "greedy" and "irresponsible" and believe that gambling disorder is more likely to be caused by controllable factors like flawed character and less likely to be caused by uncontrollable factors like genetics and biology, relative to other mental health conditions. In turn, beliefs about the causes of gambling disorder, as well as beliefs about the dangerousness of individuals with gambling disorder, have been shown to predict people's desire to maintain social distance from those with gambling disorder. Research on self-stigma suggests that individuals with gambling disorder are sensitive to the negative attitudes held by the general public and often internalize those attitudes, with women and individuals with more severe gambling

problems being most affected by self-stigma. Self-stigma is linked to lower rates of treatment-seeking and reduced self-esteem. Individuals with gambling disorder report coping with stigma by concealing their problem from others, which leads to social withdrawal and further problem exacerbation.

Recent studies indicate that the manipulation of certain factors, but not others, influences stigmatizing attitudes related to gambling disorder. Whether and how gambling problems are labeled (e.g., "gambling disorder") has been shown to have little effect on people's beliefs and attitudes. Manipulation of causal beliefs, such as by emphasizing genetic explanations of gambling disorder, may have both desired and undesired effects, such as decreasing blame attributed to individuals with gambling disorder but also decreasing beliefs in their ability to recover. Likewise, preliminary evidence indicates that contact-, education-, and advocacy-based strategies have varied effects on stigma of gambling disorder. Whereas these strategies have been shown to be effective in reducing aspects of mental illness related stigma in the broader literature, a contact-based intervention for gambling disorder was shown to have both favorable and unfavorable effects on stigma-related variables. There is a need for more research to better understand the mechanisms that underlie the stigma of gambling disorder and how those mechanisms are affected by different intervention strategies. In addition, more research on structural stigma and self-stigma, stigma among mental health professionals, and the influence of culture on stigma and stigma reduction in the context of gambling disorder will help to inform how best to prevent and reduce the stigma of gambling disorder across different contexts and populations.

Declarations

Conflict of Interest Dr. Quigley has received speaker fees from the International Center for Responsible Gaming and the Responsible Gambling Department for LifeWorks.

Human and Animal Rights and Informed Consent This article does not report on original data collected from human or animal participants.

References

Papers of particular interest, published recently, have been highlighted as: • Of importance

1. Abbott MW. The changing epidemiology of gambling disorder and gambling-related harm: public health implications. Public Health. 2020;184:41–5. https://doi.org/10.1016/j.puhe.2020.04.003.
2. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Washington, DC: American Psychiatric Association; 2013.
3. Andrà C, Priolo G, Merlin F, Chiavarino C. Differences in perceived and experienced stigma between problematic gamblers and non-gamblers in a general population survey. J Gambl Stud. 2022;38(2):333–51. https://doi.org/10.1007/s10899-021-10048-9.
4. Bielenberg J, Swisher G, Lembke A, Haug NA. A systematic review of stigma interventions for providers who treat patients with substance use disorders. J Subst Abuse Treat. 2021;131:108486. https://doi.org/10.1016/j.jsat.2021.108486.
5. • Brown KL, Russell AM. Exploration of intervention strategies to reduce public stigma associated with gambling disorder. J Gambl Stud. 2020;36(2):713–33. https://doi.org/10.1007/s10899-019-09888-3. **Compared the effects of contact-, education-, and advocacy-based film interventions on various aspects of public stigma related to gambling disorder.**
6. Cheng ZH. Asian Americans and European Americans' stigma levels in response to biological and social explanations of depression. Soc Psychiatry Psychiatr Epidemiol. 2015;50(5):767–76. https://doi.org/10.1007/s00127-014-0999-5.
7. Cheon BK, Chiao JY. Cultural variation in implicit mental illness stigma. J Cross Cult Psychol. 2012;43(7):1058–62. https://doi.org/10.1177/0022022112455457.
8. Corrigan PW, Markowitz RE, Watson A, Rowan D, Kubiak MA. An attribution model of public discrimination towards persons with mental illness. J Health Soc Behav. 2003;44:162–79. https://doi.org/10.2307/1519806.
9. Corrigan PW, Morris SB, Michaels PJ, Rafacz JD, Rüsch N. Challenging the public stigma of mental illness: a meta-analysis of outcome studies. Psychiatr Serv. 2012;63(10):963–73. https://doi.org/10.1176/appi.ps.201100529.
10. Corrigan PW, Rao D. On the self-stigma of mental illness: stages, disclosure, and strategies for change. The Canadian Journal of Psychiatry. 2012;57(8):464–9. https://doi.org/10.1177/070674371205700804.
11. Corrigan P, Schomerus G, Shuman V, Kraus D, Perlick D, Harnish A, Kulesza M, Kane-Willis K, Qin S, Smelson D. Developing a research agenda for understanding the stigma of addictions Part I: lessons from the mental health stigma literature. Am J Addict. 2017;26(1):59–66. https://doi.org/10.1111/ajad.12458.
12. Corrigan PW, Watson AC. Understanding the impact of stigma on people with mental illness. World Psychiatry. 2002;1(1):16–20.
13. Corrigan PW, Watson AC, Barr L. The self-stigma of mental illness: Implications for self-esteem and self-efficacy. J Soc Clin Psychol. 2006;25:875–84. https://doi.org/10.1521/jscp.2006.25.8.875.
14. Dąbrowska K, Wieczorek Ł. Perceived social stigmatisation of gambling disorders and coping with stigma. Nordic Stud Alcohol Drugs. 2020;37(3):279–97. https://doi.org/10.1177/1455072520902342.
15. Dąbrowska K, Wieczorek Ł (2021) Patients' and professionals' beliefs about the impact of social stigmatization on treatment of gambling-related disorders. Psychiatr Pol 55(1):181–196. https://doi.org/10.12740/PP/112402
16. Delfabbro P, Hundric DD, Ricijas N, Derevensky JL, Gavriel-Fried B. What contributes to public stigma towards problem gambling?: A comparative analysis of university students in Australia, Canada, Croatia and Israel. J Gambl Stud. 2021;1-15. https://doi.org/10.1007/s10899-021-10086-3.
17. DeLuca JS, Hwang J, Stepinski L, Yanos PT. Understanding explanatory mechanisms for racial and ethnic differences in mental health stigma: the role of vertical individualism and right-wing authoritarianism. J Ment Health. 2022;31(1):39–49. https://doi.org/10.1080/09638237.2020.1836556.
18. Dhillon J, Horch JD, Hodgins DC. Cultural influences on stigmatization of problem gambling: East Asian and Caucasian

Canadians. J Gambl Stud. 2011;27(4):633–47. https://doi.org/10.1007/s10899-010-9233-x.
19. Di Nicola M, De Crescenzo F, D'Alò GL, Remondi C, Panaccione I, Moccia L, Molinaro M, Dattoli L, Lauriola A, Martinelli A, Giuseppin G, Maisto F, Crosta ML, Di Pietro S, Amato L, Janiri L. Pharmacological and psychosocial treatment of adults with gambling disorder: a meta-review. J Addict Med. 2020;14(4):e15–23. https://doi.org/10.1097/ADM.0000000000000574.
20. Evans-Lacko S, Brohan E, Mojtabai R, Thornicroft G. Association between public views of mental illness and self-stigma among individuals with mental illness in 14 European countries. Psycholog Med. 2012;42(8):1741–52. https://doi.org/10.1017/S0033291711002558.
21. Gainsbury S, Hing N, Suhonen N. Professional help-seeking for gambling problems: awareness, barriers and motivators for treatment. J Gambl Stud. 2014;30(2):503–19. https://doi.org/10.1007/s10899-013-9373-x.
22. Goffman E. Stigma: notes on the management of spoiled identity. London: Penguin; 1963.
23. Haslam N, Ban L, Kaufmann L. Lay conceptions of mental disorder: the folk psychiatry model. Aust Psychol. 2007;42:129–37. https://doi.org/10.1080/00050060701280615.
24. Hatzenbuehler ML. Structural stigma: Research evidence and implications for psychological science. Am Psychol. 2016;71(8):742–51. https://doi.org/10.1037/amp0000068.
25. Hing N, Nuske E, Gainsbury SM, Russell AM. Perceived stigma and self-stigma of problem gambling: perspectives of people with gambling problems. Int Gambl Stud. 2016;16(1):31–48. https://doi.org/10.1080/14459795.2015.1092566.
26. Hing N, Russell AM. How anticipated and experienced stigma can contribute to self-stigma: the case of problem gambling. Front Psychol. 2017;8:235. https://doi.org/10.3389/fpsyg.2017.00235.
27. Hing N, Russell AM, Gainsbury SM. Unpacking the public stigma of problem gambling: the process of stigma creation and predictors of social distancing. J Behav Addict. 2016;5(3):448–56. https://doi.org/10.1556/2006.5.2016.057.
28. Hing N, Russell AM, Gainsbury SM, Nuske E. The public stigma of problem gambling: its nature and relative intensity compared to other health conditions. J Gambl Stud. 2016;32(3):847–64. https://doi.org/10.1007/s10899-015-9580-8.
29. Hodgins DC, Stevens RM. The impact of COVID-19 on gambling and gambling disorder: emerging data. Curr Opin Psychiatry. 2021;34(4):332–43. https://doi.org/10.1097/YCO.0000000000000709.
30. Horch J, Hodgins D. Stereotypes of problem gambling. Journal of Gambling Issues. 2013;28. https://doi.org/10.4309/jgi.2013.28.10.
31. Horch J, Hodgins DC. Public stigma of disordered gambling: social distance, dangerousness, and familiarity. J Soc Clin Psychol. 2008;27:505–28. https://doi.org/10.1521/jscp.2008.27.5.505.
32. Konkolÿ Thege BK, Colman I, El-Guebaly N, Hodgins DC, Patten SB, Schopflocher D, Wolfe J, Wild TC. Social judgments of behavioral versus substance-related addictions: a population-based study. Addict Behav. 2015;42:24–31. https://doi.org/10.1016/j.addbeh.2014.10.025.
33. Kopera M, Suszek H, Bonar E, Myszka M, Gmaj B, Ilgen M, Wojnar M. Evaluating explicit and implicit stigma of mental illness in mental health professionals and medical students. Community Ment Health J. 2015;51(5):628–34. https://doi.org/10.1007/s10597-014-9796-6.
34. Koski-Jännes A, Simmat-Durand L. Basic beliefs about behavioural addictions among Finnish and French treatment professionals. J Gambl Stud. 2017;33(4):1311–23. https://doi.org/10.1007/s10899-017-9672-8.
35. Kvaale EP, Haslam N, Gottdiener WH. The 'side effects' of medicalization: a meta-analytic review of how biogenetic explanations affect stigma. Clin Psychol Rev. 2013;33(6):782–94. https://doi.org/10.1016/j.cpr.2013.06.002.
36. Langham E, Thorne H, Browne M, Donaldson P, Rose J, Rockloff M. Understanding gambling related harm: a proposed definition, conceptual framework, and taxonomy of harms. BMC Public Health. 2015;16(1):1–23. https://doi.org/10.1186/s12889-016-2747-0.
37.• Lebowitz MS, Appelbaum PS. Beneficial and detrimental effects of genetic explanations for addiction. Int J Soc Psychiatry. 2017;63(8):717–23. https://doi.org/10.1177/0020764017737573. **Evaluated the effects of genetic explanations, via experimental manipulation, on people's beliefs and attitudes about gambling disorder and alcohol use disorder.**
38. Lebowitz MS, Appelbaum PS. Biomedical explanations of psychopathology and their implications for attitudes and beliefs about mental disorders. Annu Rev Clin Psychol. 2019;15:555–77. https://doi.org/10.1146/annurev-clinpsy-050718-095416.
39. Link BG, Phelan JC. Conceptualizing stigma. Ann Rev Sociol. 2001;27(1):363–85. https://doi.org/10.1146/annurev.soc.27.1.363.
40. Link, B., Struening, E., Neese–Todd, S., Asmussen, S., & Phelan, J. (2001). Stigma as a barrier to recovery: the consequences of stigma for the self–esteem of people with mental illnesses. *Psychiatric Services, 52*, 1621–1626. 01. https://doi.org/10.1176/appi.ps.52.12.1621
41. Link BG, Yang LH, Phelan JC, Collins PY. Measuring mental illness stigma. Schizophr Bull. 2004;30(3):511–41. https://doi.org/10.1093/oxfordjournals.schbul.a007098.
42. Livingston JD, Milne T, Fang ML, Amari E. The effectiveness of interventions for reducing stigma related to substance use disorders: a systematic review. Addiction. 2012;107(1):39–50. https://doi.org/10.1111/j.1360-0443.2011.03601.x.
43. Mehta N, Clement S, Marcus E, Stona AC, Bezborodovs N, Evans-Lacko S, Palacios J, Docherty M, Barley E, Rose D, Koschorke M, Shidhaye R, Henderson C, Thornicroft G. Evidence for effective interventions to reduce mental health-related stigma and discrimination in the medium and long term: systematic review. Br J Psychiatry. 2015;207(5):377-384. https://doi.org/10.1192/bjp.bp.114.151944.
44. Miller HE, Thomas SL. The problem with 'responsible gambling': impact of government and industry discourses on feelings of felt and enacted stigma in people who experience problems with gambling. Addict Res Theory. 2018;26(2):85–94. https://doi.org/10.1080/16066359.2017.1332182.
45. Mittal D, Sullivan G, Chekuri L, Allee E, Corrigan PW. Empirical studies of self-stigma reduction strategies: a critical review of the literature. Psychiatr Serv. 2012;63(10):974–81. https://doi.org/10.1176/appi.ps.201100459.
46. Palmer BA, Richardson EJ, Heesacker M, DePue MK. Public stigma and the label of gambling disorder: Does it make a difference? J Gambl Stud. 2018;34(4):1281–91. https://doi.org/10.1007/s10899-017-9735-x.
47. Park K, MinHwa L, Seo M. The impact of self-stigma on self-esteem among persons with different mental disorders. Int J Soc Psychiatry. 2019;65(7–8):558–65. https://doi.org/10.1177/0020764019867352.
48. Penn DL, Nowlin-Drummond A. Politically correct labels and schizophrenia: a rose by any other name? Schizophr Bull. 2001;27:197–203. https://doi.org/10.1093/oxfordjournals.schbul.a006866.

49. Pickard H. Is addiction a brain disease? A plea for agnosticism and heterogeneity. Psychopharmacology. 2022;239:993–1007. https://doi.org/10.1007/s00213-021-06013-4.
50. Potenza MN, Balodis IM, Derevensky J, Grant JE, Petry NM, Verdejo-Garcia A, Yip SW. Gambling disorder. Nature reviews Disease primers. 2019;5(1):1–21. https://doi.org/10.1038/s41572-019-0099-7.
51. Pugh, T., Hatzenbuehler, M., & Link, B. (2015). *Structural stigma and mental illness: Commissioned paper for Committee on the Science of Changing Behavioral Health Social Norms*. Retrieved from https://sites.nationalacademies.org/cs/groups/dbassesite/documents/webpage/dbasse_170045.pdf.
52.• Quigley L, Prentice J, Warren JT, Quilty LC, Dobson KS, Hodgins DC. What's in a name? Evaluating the public stigma of gambling disorder. J Gambl Stud. 2020;36(4):1205–28. https://doi.org/10.1007/s10899-019-09924-2. **Comprehensively evaluated the public stigma of gambling disorder compared to various mental health and health conditions and the effect of different labels on aspects of stigma in separate student and general public samples.**
53. Rao D, Feinglass J, Corrigan P. Racial and ethnic disparities in mental illness stigma. J Nerv Ment Dis. 2007;195(12):1020–3. https://doi.org/10.1097/NMD.0b013e31815c046e.
54. Rao H, Mahadevappa H, Pillay P, Sessay M, Abraham A, Luty J. A study of stigmatized attitudes towards people with mental health problems among health professionals. J Psychiatr Ment Health Nurs. 2009;16(3):279–84. https://doi.org/10.1111/j.1365-2850.2008.01369.x.
55. Ribeiro EO, Afonso NH, Morgado P. Non-pharmacological treatment of gambling disorder: a systematic review of randomized controlled trials. BMC Psychiatry. 2021;21(1):1–15. https://doi.org/10.1186/s12888-021-03097-2.
56. Schnyder N, Panczak R, Groth N, Schultze-Lutter F. Association between mental health-related stigma and active help-seeking: systematic review and meta-analysis. Br J Psychiatry. 2017;210(4):261–8. https://doi.org/10.1192/bjp.bp.116.189464.
57. Szeto AC, Luong D, Dobson KS. Does labeling matter? An examination of attitudes and perceptions of labels for mental disorders. Soc Psychiatry Psychiatr Epidemiol. 2013;48(4):659–71. https://doi.org/10.1007/s00127-012-0532-7.
58. Thornicroft G, Mehta N, Clement S, Evans-Lacko S, Doherty M, Rose D, ..., Henderson C. Evidence for effective interventions to reduce mental-health-related stigma and discrimination. Lancet. 2016;387(10023):1123-1132. https://doi.org/10.1016/S0140-6736(15)00298-6.
59. Volkow ND, Gordon JA, Koob GF. Choosing appropriate language to reduce the stigma around mental illness and substance use disorders. Neuropsychopharmacology. 2021;46(13):2230–2. https://doi.org/10.1038/s41386-021-01069-4.
60. Waqas A, Malik S, Fida A, Abbas N, Mian N, Miryala S, Naz Amray A, Shah Z, Naveed S. Interventions to reduce stigma related to mental illnesses in educational institutes: a systematic review. Psychiatr Q. 2020;91(3):887–903. https://doi.org/10.1007/s11126-020-09751-4.
61. Weiner B. An attributional theory of achievement motivation and emotion. Psychol Rev. 1985;92(4):548. https://doi.org/10.1037/0033-295X.92.4.548.
62. Weiner B, Perry RP, Magnusson J. An attributional analysis of reactions to stigmas. J Pers Soc Psychol. 1988;55:738–48. https://doi.org/10.1037/0022-3514.55.5.738.
63. Williams RJ, Leonard CA, Belanger YD, Christensen DR, El-Guebaly N, Hodgins DC, ..., Stevens RM. Gambling and problem gambling in Canada in 2018: Prevalence and changes since 2002. Can J Psychiatry. 2021;66(5):485-494. https://doi.org/10.1177/0706743720980080.
64. Wöhr A, Wuketich M. Perception of gamblers: a systematic review. J Gambl Stud. 2021;37(3):795–816. https://doi.org/10.1007/s10899-020-09997-4.
65. Wu A, Lai MH, Tong KK. Gambling disorder: estimated prevalence rates and risk factors in Macao. Psychol Addict Behav. 2014;28(4):1190–7. https://doi.org/10.1037/a0037603.
66. Yakovenko I, Quigley L, Hemmelgarn BR, Hodgins DC, Ronksley P. The efficacy of motivational interviewing for disordered gambling: systematic review and meta-analysis. Addict Behav. 2015;43:72–82. https://doi.org/10.1016/j.addbeh.2014.12.011.
67. Yamaguchi S, Ojio Y, Ando S, Bernick P, Ohta K, Watanabe KI, Thornicroft G, Shiozawa T, Koike S. Long-term effects of filmed social contact or internet-based self-study on mental health-related stigma: a 2-year follow-up of a randomised controlled trial. Soc Psychiatry Psychiatr Epidemiol. 2019;54(1):33–42. https://doi.org/10.1007/s00127-018-1609-8.
68. Yang L, Wong LY, Grivel MM, Hasin DS. Stigma and substance use disorders: an international phenomenon. Curr Opin Psychiatry. 2017;30(5):378–88. https://doi.org/10.1097/YCO.0000000000000351.