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# A qualitative evaluation of a video gambling campaign among young Australians

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#### **Abstract**

Gambling is an emerging public health issue within Australia, which can lead to various adverse impacts on individuals and society. Online gambling is becoming increasingly popular and is considered a high-risk environment where problem gambling is likely to occur. This rising prevalence emphasises the need for prevention and responsible gambling initiatives in Australia. C'Mon Australia Don't Let the Game Play Ya! is a recently developed responsible gambling video campaign. The campaign focuses on online gambling and aims to promote responsible gambling messages towards young Australians, a vulnerable population at risk of gambling-related harm. This study qualitatively evaluated the campaign to gather feedback and understand whether the campaign raised awareness of gambling participation and associated risks. The sample (n = 8) was comprised of young adults in Australia, who were aged between 18 and 24 and were not required to be gamblers to participate. Semi-structured focus groups were conducted and responses were analysed using thematic analysis. Results revealed mainly positive feedback, commenting on the design elements, the messaging, and the dissemination of the campaign. The feedback highlighted likeable features of C'Mon Australia Don't Let the Game play Ya! and provided suggestions for revisions. This study provides valuable insight to inform the development of future responsible gambling campaigns, and future research is recommended to evaluate the campaign across varying contexts, timeframes, and demographics.

Keywords Gambling · Problem gambling · Responsible gambling · Public health

# 1 Introduction

Gambling has increasingly become a prominent public health issue that can result in significant harm to individuals and communities [1]. Gambling behaviours can lead to significant adverse consequences such as mental health concerns [2, 3], interpersonal issues and health difficulties [4]. Participation in gambling may occurs amongst those suffering from psychological difficulties such as anxiety and depressive disorders, and suicidal ideation [2–5], with the impact on quality of life comparable to the effects of major depression and alcohol use [6]. Whilst gambling prevails as a global issue, its prevalence and integration into Australia and Australian sporting culture has continuously increased [7]. Subsequently, Australians experience some of the highest per capita gambling losses globally [8]. Recent statistics have shown that 39% of Australian adults engage in regular gambling and the national annual gambling participation rate is 64% [9].

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# 1.1 Gambling as an Australian issue

The increase in gambling in Australia is linked to the emerging availability and exposure to gambling-related information and activities [10, 11], in addition to several societal and environmental factors [12]. Gambling products and venues are highly accessible and available, with approximately 200,000 electronic gambling machines across Australia [13]. Additionally, gambling and betting behaviours have been significantly promoted and advertised in Australia. Since 2016, gambling advertisements have increased by 253%, with \$287.2 million spent on gambling advertising [14] and over 900 gambling advertisements were broadcasted daily on Victorian television in 2021 [14]. Given this promotion, individuals can be led to believe gambling is a fun, exciting, risk-free activity that is common and popular [12, 15].

Distinct from traditional land-based gambling, online gambling, referring to internet gambling which occurs through mobile phones, computers, and other wireless devices [16], has recently proliferated. The prevalence of online gambling has doubled over 10 years [17], and Australia accounts for approximately 5% of online gambling worldwide [18]. This rising trend is attributed to the exclusive features of online gambling, including the 24-h accessibility, convenience and ease, immersive and solitary nature, anonymity, electronic payments, ability to play whilst intoxicated, and increased internet access and use of mobile devices [17, 19–21]. Therefore, online gambling is considered as a high-risk environment, with online modes causing and exacerbating gambling-related problems [22–26]. In fact, online gamblers have been found to have significantly higher problem gambling rates than non-online gamblers [27, 28]. The apparent ease of online gambling can lead to other risks, such as poor physical and social environments, increased spending and disturbed eating and sleeping [18, 22, 26, 29].

Research has found that younger individuals and males are vulnerable and at greater risk of gambling-related harm [30]. Young people experience problem gambling at higher, more variable rates and are more likely to develop gambling problems when compared to the adult population [31–34]. Younger individuals are increasingly receptive to online gambling due to its social acceptance and normalisation [31, 35, 36] and their familiarity and developed skill set with technology and the online world [37, 38]. As this is a critical stage of life where risk-taking behaviours typically emerge [39], young people are classified as a vulnerable group at risk of developing gambling problems [31, 40–42]. Given the social acceptance and promotion of gambling [42, 43] and the significant number of young people gambling [44], gambling amongst young people is a serious issue.

Gambling participation amongst males has been a focused area in research, recognising them as a vulnerable, at-risk group of developing problem gambling [30, 45]. When compared to females, males were found to engage in more types of gambling [10, 46, 47], increased regularity, frequency and greater expenditure [48] and are more likely to be problem gamblers [49, 50]. Males are over-represented among regular gamblers in Australia [9], within online gambling [17], and are more likely to experience problem gambling within a young population [51–53].

# 1.2 Prevention of problem gambling

The rising gambling prevalence in Australia emphasises the need for prevention and responsible gambling promotion. Preventative approaches ensure risk and harm minimisation messages are circulated across the entire population [54] and thus, is a priority to treatment and essential to reducing gambling-related harm [55]. Stand-alone treatment for gambling does not effectively address the growing issue of gambling, where only a small proportion of those who develop a gambling problem will seek help [26, 56–59].

Prevention initiatives aim to increase knowledge regarding the risks associated with gambling [60–63] and promote harm minimisation approaches [64, 65]. Prevention initiatives aim to communicate safer gambling messages to individuals [66] to prevent problem gambling behaviours from emerging or worsening [66]. This approach aims to educate and adjust knowledge, attitudes and beliefs to influence the decision to initiate gambling [67, 68] and potentially avoid the onset of problem gambling behaviours. Within a harm minimisation framework, the responsible consumption of gambling has been defined as 'Exercising control and informed choice to ensure that gambling is kept within affordable limits of money and time, is enjoyable, in balance with other activities and responsibilities and avoids gambling-related harm' [69].

Campaigns are widely used to target many public health issues and effectively achieve various outcomes [70, 71]. Responsible gambling information is commonly delivered through campaigns, often providing information for understanding limits, highlighting the addictive nature of gambling, signs of problem gambling and assistance to help seek [66, 72, 73]. It is vital for vulnerable populations, such as young people, to receive tailored responsible gambling messaging,



especially as they consume extensive amounts of gambling promotion and advertising, as has been seen when evaluating alcohol and other public health campaigns [74, 75].

# 1.3 The current study

The current study has two aims: firstly, it aims to evaluate and gather specific feedback on *C'Mon Australia*, *Don't Let the Game Play Ya!* [76], a responsible gambling campaign targeting online gambling and young Australians. Secondly, the study aims to understanding how to target preventative campaigns better and communicate responsible gambling messages to vulnerable populations. Due to the exploratory nature of this study, no hypotheses or expected outcomes are identified and exploratory research questions are used to guide the methodology.

# 2 Method

# 2.1 Participants

Eight participants (1 male, 7 female) took part in the study, ranging from 18 to 24 years of age (M=20.63, SD=2.20). Participants were recruited via an online advertisement on social media platforms. To meet inclusion criteria, participants needed to reside in Australia, be between 18 and 25 years of age, and speak fluent English. Participants were not required to have participated in gambling to participate in the study. The sample included non-problem gamblers, low-risk gamblers, and problem gamblers (M=4.50, SD=7.91) as measured by the Problem Gambling Severity Index (PGSI) [77]. Table 1 displays additional demographic information.

#### 2.2 Materials

# 2.2.1 Demographics

Data was gathered on participants' age, Australian residency, gender identity, English fluency, annual household income and highest education level.

#### 2.2.2 Problem Gambling Severity Index (PGSI)

The Problem Severity Index (PGSI) [77] measures problem gambling behaviours and adverse consequences in the general population. The PGSI contains nine items, rated on a 4-point Likert scale from 'Never' to 'Almost Always', where higher scores indicate greater at-risk behaviours of problem gambling. Final PGSI scores are characterised as either non-problem gambler (0), low-risk gambler (1–2), moderate-risk gambler (3–7) or problem gambler (8 or above). The PGSI has demonstrated adequate reliability for internal consistency (alpha = 0.84) and test–retest reliability (r = 0.78) [77].

 Table 1
 Demographic information of research participants

Participant	Age	Gender	Annual household income	Education level	Problem Gambling Severity Index (PGSI)	Problem gambling severity category
1	23	Female	\$65,000-\$90,999	Undergraduate qualification	0	Non-problem gambler
2	22	Female	\$0-\$33,799	Undergraduate qualification	0	Non-problem gambler
3	18	Female	\$33,799-\$64,999	Higher school certificate	0	Non-problem gambler
4	19	Female	\$181,999 or more	Higher school certificate	2	Low-risk gambler
5	19	Female	\$0-\$33,799	Higher school certificate	14	Problem gambler
6	24	Female	\$33,799-\$64,999	Post-graduate qualification	0	Non-problem gambler
7	19	Male	\$65,000-\$90,999	Undergraduate qualification	20	Problem gambler
8	21	Female	\$156,000-\$181,999	Undergraduate qualification	0	Non-problem gambler

Higher scores on the PGSI indicate a greater risk of problem gambling behaviours



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# 2.2.3 C'Mon Australia, Don't Let the Game Play Ya!

C'mon Australia, Don't Let The Game Play Ya! [76] is a 1-min 25-s video campaign designed for 18-24-year-olds in Australia. This responsible gambling campaign focuses on online gambling and aims to highlight the pervasiveness of gambling to increase young people's understanding of their behaviours and gambling-related risks. The University of Technology Sydney Design Innovation Research Centre developed the campaign with funding from the Office of Responsible Gambling NSW. The campaign was developed by a design team, psychologists, and young Australians to ensure that animations were relevant.

#### 2.3 Procedure

This study was approved by the Human Research Ethics Committee at the University of Technology Sydney (Reference No. ETH21-6328).

Participants who responded to the online advertisement were directed to an online survey via the Qualtrics Software [78]. Participants were provided with an information sheet and a consent form prior to participating. Participation was voluntary and could be ceased at any time.

Participants responded to demographic questions and the PGSI measure via the online survey. Participants who had high PGSI scores were given gambling-specific support services. Two online focus groups were conducted where participants were shown C'Mon Australia, Don't Let the Game Play Ya! [76], followed by a semi-structured interview of questions relating to the campaign. These questions relating to the campaign were discussed amongst the group. Each focus group lasted approximately 60 min. Finally, participants were reimbursed with a gift card.

# 2.4 Data analysis

A thematic analysis was utilised, following Braun and Clarke's [79] six-step process of data familiarisation, coding, and theme development and revision for qualitative data [79]. Firstly, audio recordings of focus groups were transcribed and de-identified, followed by integrity checking and re-reading to thoroughly familiarise with the data. The data was then manually coded by the primary researcher, and initial codes were identified. Following this, codes were combined to identify common themes throughout the data. Finally, themes were revised by both researchers, and again condensed where there was overlap, and reported for the final phase of thematic analysis. Themes were eventually condensed into three separate categories: Design Features, Campaign Messaging and Dissemination of the Campaign. Reflexivity was acknowledged through discussions on the researcher's ideologies and assumptions of the research and its effects on the study's outcomes [79, 80].

#### 3 Results

The thematic analysis identified three themes and eleven sub-themes (see Table 2). that are discussed in further detail below. Results indicated that saturation was met.

# 3.1 Theme 1: design features of the campaign

Almost all participants commented on the design elements of the campaign. These included the colours, cartoon animations, humour, use of Australian references and the length and speed of the campaign.

#### 3.1.1 Subtheme 1: visual design and animation

Overall, participants found the campaign attention-grabbing, engaging, and memorable. Many participants described the campaign as aesthetically pleasing and relevant, and one participant believed the psychedelic, bright colours were specifically eye-catching.

Several participants commented on using the animations to portray the protagonist in the campaign. Some participants described it as funny and attention-grabbing, whereas others described it as strange and confusing. Some suggested representing all the characters as humans to elicit emotion, connection, and relatability with the audience. One



Table 2	Themes and					
subthemes						

Themes	Subthemes		
1. Design features of the campaign	1.1 Visual design and animation		
	1.2 Use of humour and light-hearted approach		
	1.3 Australian references		
	1.4 Speed and length		
2. Campaign messaging	2.1 Awareness of gambling activities and risks		
	2.2 Preventing gambling-related harm		
	2.3 Responsible gambling		
	2.4 Tone of gambling messaging		
	2.5 Strategies to manage gambling		
3. Dissemination of the campaign	3.1 Age group		
	3.2 Platform		

participant believed the animated character signified gamblers as being "in their own world" and his human girlfriend is representative of her living in reality. One participant enjoyed viewing the campaign through the protagonist's perspective as it highlighted his thoughts and feelings of guilt.

#### 3.1.2 Subtheme 2: use of humour and light-hearted approach

Most participants commented on the humorous content of the campaign, with many describing it as important to engage the audience and make it relatable. Participants described the campaign as "a really good, humorous, light-hearted, campaign" and as fun and not overwhelmingly negative, with suggestions to keep the humour in the campaign. A few noted that the fun and light-hearted nature of the campaign led kept them engaged as they were "excited to see the next joke". Some participants highlighted the importance of humour in grabbing their attention which would increase the likelihood of them viewing and focusing on the campaign.

On the other hand, a few participants commented that the humour might have been interpreted as minimising the protagonists' behaviours. Further, they considered that an individual might feel bitter towards the campaign if experiencing similar difficulties. One participant also commented that "it's kind of hard to take what it's saying seriously" due to the humour.

#### 3.1.3 Subtheme 3: Australian references

Many participants commented on the depiction of Australian culture and noted that they could quickly identify that it was targeted towards Australians. Further, participants discussed common Australian health campaigns which aim to portray negative consequences to deter individuals from engaging in certain behaviours. One participant described the campaign as "laughs and giggles" compared to popular Australian campaigns, which are "really dark". One participant agreed that whilst "darker ads" are memorable, they believed it is easy to think "that's the worst-case scenario, but it won't be me that happens to". This participant noted that the current campaign might allow someone to notice if they are in a similar position. A few participants also reported that if they have already been exposed to gambling and enjoy it, they are not likely to listen to fear-mongering campaigns, and whilst it might "scare me a little bit", it won't lead to any changes in their behaviour.

#### 3.1.4 Subtheme 4: speed and length

One design components which some participants commented on was the campaign being too "fast and rapid" for the amount of information in the campaign. Participants noted that this made it difficult to attend to all of the content. However, some participants felt the campaign was too long, and one participant noticed moments that were not funny or enjoyable.



# 3.2 Theme 2: campaign messaging

Participants commented on the specific gambling-related information presented in the campaign and discussed the tone of these messages. Participants also provided suggestions to improve the messaging.

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# 3.2.1 Subtheme 1: awareness of gambling activities and risks

Participants expressed that the campaign increased their awareness of gambling participation and related harm. Most participants identified gambling-related risks presented in the campaign, such as debt, losing time, losing social life, and playing to win. One participant noted that becoming aware of the protagonist's debt "humanised it a bit", allowing them to resonate with the campaign. Some mentioned that the campaign allowed them to identify activities that may be considered gambling, with one participant reflecting on their personal use of mobile phone applications. As a result, a few participants reported they are likely to reduce their mobile phone activity or delete mobile applications. Several participants interpreted gambling as widespread, challenging one participant's pre-existing idea that gambling mainly occurs in a casino. Further, participants felt the campaign increased their awareness of the pervasiveness of gambling and promoted the realisation that gambling can be all around. Consequently, one participant noted that they would remove themselves from certain situations; however, another mentioned that the campaign would not impact their behaviour.

# 3.2.2 Subtheme 2: preventing gambling-related harm

The majority of participants identified the preventative message of the campaign. One participant believed the campaign's main aim was for individuals to reflect upon and assess their own problem gambling behaviours. However, most participants theorised that the campaign aimed to raise awareness, prevent problems before they emerge and bring to light the "unseen side" of gambling. One participant highlighted that the purpose was not to "demonise gambling".

When asked how participants would protect themselves and minimise gambling-related harm after viewing the campaign, participants noted "setting a limit", "start with a little less amount of money", and "being aware of different kinds of gambling". However, one participant noted that they wouldn't protect themselves as they felt the campaign did not educate them or provide them with this opportunity.

#### 3.2.3 Subtheme 3: responsible gambling

Many participants expressed unfamiliarity towards the meaning of responsible gambling. Participants commented that their exposure to gambling and societal influences impacted their understanding of responsible gambling and their personal gambling behaviours:

"I'm not a gambler, but I'm exposed to it. Like, I know what Ladbrokes is...."

Participants provided examples of responsible gambling strategies such as not gambling money you don't have, engaging in it to a small degree, and knowing your limits. Participants discussed the level of insight required to "know your limits", noting this may be difficult for young people. Thus, participants expressed that this is an unreliable way to control gambling, stating "how do you know how much is enough?". Despite this, participants predicted feeling displeased if the campaign recommended a specific dollar amount to spend on gambling. Participants commented on the statement "gamble responsibly" and believed it had little impact. One participant compared this to alcohol consumption and noted:

"Drink responsibly, gamble responsibly. You hear that everywhere. However, gambling responsibly is just a statement, whereas drink responsibly, you can only drink this much before you drive... whereas with gambling it's just like gamble responsibly, like, what does that mean?"

Participants suggested further explanation of responsible gambling strategies, such as awareness of your finances, not gambling money that is not yours, and implementing spending caps and limits.



#### 3.2.4 Subtheme 4: tone of gambling messaging

Participants described the campaign as neutral, non-judgmental, and that it didn't give the impression of a lecture. However, a few felt the messaging did convey judgment and interpreted the messaging as "get your act together" and "tough luck". Participants found the campaign clear, despite some subliminal messaging which has the potential to evoke confusion. Participants expressed confusion towards loot boxes and the chicken scene and predicted a broader audience also experiencing confusion. The chicken scene sparked conversation; some felt confused, and other participants described it as funny. One participant believed the chicken represented chances of winning or gambling with your health.

#### 3.2.5 Subtheme 5: strategies to manage gambling

Almost all participants commented on the lack of strategies and solutions provided in the campaign. One participant noted, "where do you go if you want to be responsible?" and another summarised the campaign as "Here's what can happen. Don't do it. The end". Some participants believed they would not seek help as the campaign didn't provide a way to reach out. In support of this, others noted the difficulty in knowing what support is available and, therefore, are not motivated to find these resources. On the other hand, a few reported feeling confident to seek help as the neutral tone of the campaign would not embarrass someone to seek help. Participants suggested listing a website or number to a hotline or links to read more information.

Other suggestions included listing alternative ways to have fun, highlighting potential warning signs for being at risk, and educating people on recognising when they may be in a vulnerable place. On the contrary, one participant noted that such suggestions might not fit the theme and purpose of the campaign, which is to target prevention, and an alternative campaign may be better suited to avoid stripping the campaign of its message.

# 3.3 Theme 3: dissemination of the campaign

# 3.3.1 Subtheme 1: age group

The majority of participants agreed that the suitable target market for this campaign is a younger age group, noting that the humour and animation would appeal to this population. Specifically, participants identified ages such as "late teens to early 20s", "18 to 25", and "end of primary school or early high school". A few specified targeting individuals in year 12 as they approach the Australian legal age for gambling. One participant noted that an older demographic might resonate with the campaign due to the Australian comedy; however, another believed an older population might not like the use of animations.

A few participants emphasised the importance of targeting prevention to young individuals due to their impressionable age, as it can be difficult to change behaviours once they develop. Further, some highlighted the importance of becoming aware of gambling-related risks at a young age. Participants agreed that the campaign would be ineffective for problem gamblers as they have moved past early warning signs.

#### 3.3.2 Subtheme 2: platform

Participants provided suggestions for where the campaign should be displayed. Recommendations included mobile phone applications, on television, during sporting videos, at establishments with gambling machines, and billboards if the campaign was translated into a static image. Several participants suggested social media, including YouTube, TikTok, Facebook and Instagram. However, a few believed the campaign was too long for social media, where people might lose interest or skip the campaign. One participant thought the animations and bright colours would be eyecatching on websites and social media as young individuals are likely to view them. Interestingly, one participant noted the importance of the time the campaign is shown:



"Such as doing it on Thursday, which is the lead up to Friday and the weekend, which is when people go out... events where people have increased gambling... making sure that people have exposure to preventative measures before they start".

Other suggestions included use within school settings, where participants discussed that the regulation of Australian schools provides a guarantee for the campaign to reach a broad audience as students are obligated to watch the video. Others discussed educating parents:

"There are actually a lot of young mobile phone games that have some sort of messages or give an introduction into stuff like gambling... And parents should sort of shield them and also educate their own children that these might make you feel good, but it's actually not good in real life practice."

#### 4 Discussion

The primary aims of the current study were to evaluate and collect feedback on a responsible gambling campaign targeting young adults in Australia, and understand how to target preventative campaigns and communicate responsible gambling messages to vulnerable populations. Exploratory research questions were used to guide the research. It is important to evaluate public health campaigns within a stepped care model of mental health, in order to prevent the development of gambling related harms. Stepped care models look at providing interventions which service the varying needs of a population, including prevention, early intervention for vulnerable groups, low intensity services, moderate intensity services and more acute services. The findings of this study provide information on how young Australians understand, interact, and respond to responsible gambling campaigns and contribute to the development of prevention and harm minimisation initiatives to target potential problem gamblers in Australia.

This study provides unique data on *C'mon Australia*, *Don't Let the Game Play Ya!* [76], as there are no current published evaluations of this campaign. Overall, the campaign was well accepted, having mainly received positive feedback. Results revealed comments on the campaign's design elements, messaging, and dissemination and the campaign appeared to increase understanding of gambling activities, participation, and gambling-related risks. The findings of this study highlight the diversity of opinions and emphasise the importance of the design of a campaign in achieving desired outcomes.

This study provides meaningful feedback on effectively communicating responsible gambling messages to young Australians and can inform future government and public health campaigns. The findings provide specific suggestions for implementing, maintaining, or discarding certain campaign elements. However, notable takeaways are for campaigns to adopt creative elements such as animations and colours, as the group of young people in this study found these elements enjoyable. Further, evaluations suggest that younger audiences prefer the inclusion of humour, simple messages, and short, catchy, and colourful messages [64]. Whilst opinions varied, this study found that humour was widely enjoyed and fostered sustained attention and engagement. In addition, this study found that Australian references elicited a connection with the audience, and thus future Australian health initiatives should consider this inclusion. Furthermore, participants enjoyed the light-hearted, non-judgmental, and humorous approach of the campaign. The results of this study highlighted that this group of young Australians perceive fear-mongering campaigns as the worst-case scenario and unrealistic; despite them being memorable, participants believed that they are not likely to lead to behaviour change.

A notable takeaway from this study was that the campaign elicited awareness of gambling participation. Results found that gambling was perceived as widespread which is suggested to influence decisions on gambling participation. The campaign also raised awareness of gambling-related risks, such as debt and time and social impacts. Whilst this study did not explicitly explore the effect on behaviour change, research suggests that risk appraisal is likely to lead to behaviour change [81, 82]. Future research can implement post-campaign measures to identify if the campaign led to any behaviour change over time.

Overall, C'mon Australia, Don't Let the Game Play Ya! [76] should be refined using the feedback gathered in this study. The study revealed that the lack of provided resources was a significant shortcoming of the campaign, which led to a perceived unwillingness to seek help due to not knowing where to go. Therefore, a vital recommendation from this study is for campaigns to include practical resources or services, such as a hotline or website, for those looking to seek help or learn more about responsible gambling.

The campaign's statement "gamble responsibly" was not impactful, as no clear definition was provided. To connect this statement with tangible, measurable behaviours, campaigns should define responsible gambling behaviours. A set of behavioural indicators for responsible gambling have been identified and can be used to inform future



campaigns [69]. Despite this, responsible gambling strategies were identified after viewing the campaign, including limit setting, starting with a small sum of money, being aware of gambling activities, knowing your limits, and not gambling money you don't have. However, consistent with research, results found that responsible gambling awareness is strongly influenced by societal influences and gambling exposure [10, 11]. Therefore, future research should consider implementing measures to understand whether the campaign acted as the agent of change for understanding gambling information.

C'mon Australia, Don't Let the Game Play Ya! [76] should be implemented where the desired target group is likely to view the campaign. Therefore, this campaign should be utilised to reach young Australians and where online gambling occurs, such as social media, websites, and mobile phone applications. The online space is considered an efficient way to reach young people due to their high use of these platforms and the ability to reach many individuals [83–85]. Further dissemination considerations should be explored, such as adjusting the campaign for schools and parent education [10, 61].

A strength of the current study is the alignment of the sample with the campaign's intended audience. Our sample utilised individuals from the general public and captured the entire age range that the campaign was designed for, thus providing relevant and valuable information on the effectiveness of the campaign. However, one limitation was that only one male was present in this study. Since males are considered an at-risk and vulnerable population with high gambling participation, future research should evaluate the campaign with a greater number of males. Secondly, the sample consisted of limited education levels, and a wider range of demographics should be addressed in future research as these factors may influence responsible gambling awareness.

The current study intended to mimic real-world application by limiting participants to only viewing the campaign once. Whilst this poses as a strength, participants were also required to attend to the campaign, which is not representative of how it may be viewed in the real world, with no obligation to watch or focus on the campaign. Research has suggested that campaigns can have less impact if the audience is not inherently interested and if they are not directly told to focus on the content [66]. Therefore, the campaign should be evaluated in a naturalistic environment to understand how individuals in their daily lives would respond and interact with it.

This study's use of a qualitative research design is a notable strength. The qualitative design fostered rich data and in-depth feedback on the gambling campaign and acted as an inexpensive, stimulating, and flexible approach that facilitated interactive and collaborative discussions [85]. However, utilising focus groups poses certain risks as the group culture can lead individuals to censor and conform in response to the views of others [86]. In addition, vocal or opinionated participants can feel intimidating to others, potentially limiting alternative perspectives being raised [86]. This study aimed to minimise bias by creating a respectful environment, encouraging participant discussion, and utilising semi-structured interview questions to avoid responses being led in a specific direction.

### 5 Conclusion

Overall, this study highlighted the importance of campaign elements within public health promotion campaigns. Given the problems that gambling can lead to for individuals as well as communities, as well as the heavy advertising of gambling within Australia, public health campaigns communicating the risks of gambling as well as ways to engage in gambling in a way where potential harms are minimized, are vital. Public health messaging is crucial as a preventative measure to reducing gambling related harms. Future research and public health campaigns should continue to collect and implement direct feedback to understand how to communicate and target campaigns to a specific group effectively. Future research would also benefit from exploring and actively measuring behavioural changes that may or may not result from these campaigns.

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



#### **Declarations**

Ethics approval and consent to participate Approval was obtained from the university ethics committee at the University of Technology Sydney. The procedures used in this study adhere to the tenets of the Declaration of Helsinki. Informed consent was obtained from all individual participants included in the study.

Competing interests Authors have no competing interests to declare.

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#### References

- 1. Reith G, Dobbie F. Beginning gambling: the role of social networks and environment. Addict Res Theory. 2011;19(6):483–93.
- 2. Hodgins DC, Stea JN, Grant JE, Gambling disorders, Lancet, 2011;378(9806):1874-84.

Discover Psychology

- 3. Lorains FK, Cowlishaw S, Thomas SA. Prevalence of comorbid disorders in problem and pathological gambling: systematic review and meta-analysis of population surveys. Addiction. 2011;106(3):490–8.
- 4. Delfabbro P. Evaluating the effectiveness of a limited reduction in electronic gaming machine availability on perceived gambling behaviour and objective expenditure. Int Gambl Stud. 2008;8(2):151–65.
- 5. Petry NM. Pathological gambling: etiology, comorbidity, and treatment. Washington, DC: American Psychological Association; 2005. p. 417.
- 6. Browne M, Langham E, Rawat V, Greer N, Li E, Rose J, et al. Assessing gambling-related harm in Victoria: a public health perspective. 2016. https://doi.org/10.11575/PRISM/9419.
- 7. Thomas SL, Bestman A, Pitt H, Cassidy R, McCarthy S, Nyemcsok C, et al. Young people's awareness of the timing and placement of gambling advertising on traditional and social media platforms: a study of 11–16-year-olds in Australia. Harm Reduct J. 2018;15(1):51.
- 8. Australian Institute of Health and Welfare. Gambling in Australia. Canberra: Australian Institute of Health and Welfare; 2021. https://www.aihw.gov.au/reports/australias-welfare/gambling. Accessed 21 Oct 2022.
- 9. Armstrong A, Carroll M. Gambling activity in Australia. Melbourne: Australian Gambling Research Centre, Australian Institute of Family Studies: 2017.
- Gainsbury SM, Russell A, Hing N, Wood R, Lubman DI, Blaszczynski A. The prevalence and determinants of problem gambling in Australia: assessing the impact of interactive gambling and new technologies. Psychol Addict Behav. 2014;28(3):769–79.
- 11. Delfabbro P, King D. Gambling in Australia: experiences, problems, research and policy. Addiction. 2012;107(9):1556–61.
- 12. Nyemcsok C, Thomas SL, Pitt H, Pettigrew S, Cassidy R, Daube M. Young people's reflections on the factors contributing to the normalisation of gambling in Australia. Aust N Z J Public Health. 2021;45(2):165–70.
- 13. Queensland Government Statistician's Office. Australian gambling statistics. Explanatory notes. Queensland Treasury; 2021.
- 14. Victorian Responsible Gambling Foundation. Gambling advertising. Victorian Responsible Gambling Foundation; 2022. https://responsiblegambling.vic.gov.au/resources/gambling-victoria/gambling-advertising/. Accessed 1 Aug 2022.
- 15. Derevensky J, Sklar A, Gupta R, Messerlian C. An empirical study examining the impact of gambling advertisements on adolescent gambling attitudes and behaviors. Int J Ment Health Addict. 2010;8(1):21–34.
- 16. Gainsbury SM. Online gambling addiction: the relationship between internet gambling and disordered gambling. Curr Addict Rep. 2015;2(2):185–93.
- 17. Hing N, Russell A, Browne M, Rockloff M, Greer N, Rawat V, et al. The second national study of interactive gambling in Australia (2019–20). NSW Office of Responsible Gambling; 2021.
- 18. Gainsbury SM, Wood RT, Russell AMT, Hing N, Blaszczynski A. A digital revolution: comparison of demographic profiles, attitudes and gambling behavior of Internet and non-Internet gamblers. Comput Hum Behav. 2012;28:1388–98.
- 19. Monaghan S. Responsible gambling strategies for Internet gambling: the theoretical and empirical base of using pop-up messages to encourage self-awareness. Comput Hum Behav. 2009;25(1):202–7.
- 20. Wood RT, Williams RJ. Internet Gambling: past, present and future. In: Smith G, Hodgins D, Williams R, editors. Research and measurement issues in gambling studies. Burlington: Elsevier; 2007.
- 21. Lawn S, Oster C, Riley B, Smith D, Baigent M, Rahamathulla M. A literature review and gap analysis of emerging technologies and new trends in gambling. Int J Environ Res Public Health. 2020;17(3):744.
- 22. Wood RT, Williams RJ. A comparative profile of the internet gambler: demographic characteristics, game-play patterns, and problem gambling status. New Media Soc. 2011;13(7):1123–41.
- 23. Meyer G, Fiebig M, Häfeli J, Mörsen C. Development of an assessment tool to evaluate the risk potential of different gambling types. Int Gambl Stud. 2011;11:221–36.
- 24. Gainsbury S, Wood R. Internet gambling policy in critical comparative perspective: the effectiveness of existing regulatory frameworks. Int Gambl Stud. 2011;11(3):309–23.
- 25. Griffiths M, Wardle H, Orford J, Sproston K, Erens B. Sociodemographic correlates of internet gambling: findings from the 2007 British gambling prevalence survey. Cyberpsychol Behav. 2009;12(2):199–202.



- 26. Gainsbury S, Parke J, Suhonen N. Consumer attitudes towards Internet gambling: perceptions of responsible gambling policies, consumer protection, and regulation of online gambling sites. Comput Hum Behav. 2013;29(1):235–45.
- 27. Hing N, Russell AMT, Black A, Rockloff M, Browne M, Rawat V, et al. Gambling prevalence and gambling problems amongst land-based-only, online-only and mixed-mode gamblers in Australia: a national study. Comput Hum Behav. 2022;132:1.
- 28. Olason DT, Kristjansdottir E, Einarsdottir H, Haraldsson H, Bjarnason G, Derevensky JL. Internet gambling and problem gambling among 13 to 18 year old adolescents in Iceland. Int J Ment Health Addict. 2011;9:257–63.
- 29. Wood RT, Williams RJ, editors. Internet gambling: prevalence, patterns, problems, and policy options. Ontario Problem Gambling Research Centre: Guelph; 2009.
- 30. King DL, Russell A, Hing N. Adolescent land-based and internet gambling: Australian and international prevalence rates and measurement issues. Curr Addict Rep. 2020;7:137–48.
- 31. Riley BJ, Oster C, Rahamathulla M, Lawn S. Attitudes, risk factors, and behaviours of gambling among adolescents and young people: a literature review and gap analysis. Int J Environ Res Public Health. 2001;18(3):984.
- 32. Gambling Commission. Young people and gambling survey 2019: a research study among 11–16 year olds in Great Britain. London: Gambling Commission; 2019.
- 33. Jackson AC, Dowling N, Thomas SA, Bond L, Patton G. Adolescent gambling behaviour and attitudes: a prevalence study and correlates in an Australian population. Int J Ment Health Addict. 2008:6(3):325–52.
- 34. Wardle H, Zendle D. Loot boxes, gambling, and problem gambling among young people: results from a cross-sectional online survey. Cyberpsychol Behav Soc Netw. 2021;24(4):267–74.
- 35. Delfabbro P, Lahn J, Grabosky P. Further evidence concerning the prevalence of adolescent gambling and problem gambling in Australia: a study of the ACT. Int Gambl Stud. 2005;5(2):209–28.
- 36. Abbott MW, Volberg R, Bellringer M, Reith G. A review of research on aspects of problem gambling: final report. London: Responsibility in Gambling Trust; 2004.
- 37. Delfabbro P, King D, Lambos C, Puglies S. Is video-game playing a risk factor for pathological gambling in Australian adolescents? J Gambl Stud. 2009;25(3):391–405.
- 38. King D, Delfabbro P, Griffiths M. The convergence of gambling and digital media: implications for gambling in young people. J Gambl Stud. 2010;26(2):175–87.
- 39. Oh BC, Ong YJ, Loo JMY. A review of educational-based gambling prevention programs for adolescents. Asian J Gambl Issues Public Health. 2017;7(1):4.
- 40. Edgerton JD, Melnyk TS, Roberts LW. Problem gambling and the youth-to-adulthood transition: assessing problem gambling severity trajectories in a sample of young adults. J Gambl Stud. 2015;31:1463–85.
- 41. Derevensky J, Gupta R. Adolescents with gambling problems: a synopsis of our current knowledge. J Gambling Issues. 2004;10(3):1–22.
- 42. Gavriel-Fried B, Delfabbro P, Ricijas N, Dodig Hundric D, Derevensky JL. Cross-national comparisons of the prevalence of gambling, problem gambling in young people and the role of accessibility in higher risk gambling: a study of Australia, Canada, Croatia and Israel. Curr Psychol. 2021;42:1–12.
- 43. Volberg RA, Gupta R, Griffiths MD, Olason DT, Delfabbro P. An international perspective on youth gambling prevalence studies. Int J Adolesc Med Health. 2010;22(1):3–38.
- 44. Hayer T, Griffiths MD. Gambling. In: Gullotta TP, Plant RW, Evans MA, editors. Handbook of adolescent behavioral problems: evidence-based approaches to prevention and treatment. Boston: Springer; 2015. p. 539–58.
- 45. Hare S. Study of gambling and health in Victoria. Melbourne: Victorian Responsible Gambling Foundation; 2015.
- 46. Welte JW, Barnes GM, Wieczorek WF, Tidwell MC, Parker JC. Risk factors for pathological gambling. Addict Behav. 2004;29(2):323-35.
- 47. Wenzel HG, Dahl AA. Female pathological gamblers—a critical review of the clinical findings. Int J Ment Health Addict. 2009;7:190–202.
- 48. Svensson J, Romild U, Nordenmark M, Månsdotter A. Gendered gambling domains and changes in Sweden. Int Gambl Stud. 2011;11(2):193–211.
- 49. Wardle H, Moody A, Griffiths M, Orford J, Volberg R. Defining the online gambler and patterns of behaviour integration: evidence from the British gambling prevalence survey 2010. Int Gambl Stud. 2011;11(3):339–56.
- 50. Williams RJ, Volberg RA, Stevens RMG, editors. The population prevalence of problem gambling: methodological influences, standardized rates, jurisdictional differences, and worldwide trends. Guelph: Ontario Problem Gambling Research Centre; 2012.
- 51. Ólason DT, Skarphedinsson GA, Jonsdottir JE, Mikaelsson M, Gretarsson SJ. Prevalence estimates of gambling and problem gambling among 13- to 15-year-old adolescents in Reykjavík: an examination of correlates of problem gambling and different accessibility to electronic gambling machines in Iceland. J Gambl Issues. 2006;18:39–55.
- 52. Calado F, Alexandre J, Griffiths MD. Prevalence of adolescent problem gambling: a systematic review of recent research. J Gambl Stud. 2017;33(2):397–424.
- 53. Raisamo S, Halme J, Murto A, Lintonen T. Gambling-related harms among adolescents: a population-based study. J Gambl Stud. 2013;29(1):151–9.
- 54. McMahon N, Thomson K, Kaner E, Bambra C. Effects of prevention and harm reduction interventions on gambling behaviours and gambling related harm: an umbrella review. Addict Behav. 2019;90:380–8.
- 55. Dickson-Gillespie L, Rugle L, Rosenthal R, Fong T. Preventing the incidence and harm of gambling problems. J Prim Prevent. 2008;29(1):37–55.
- 56. Evans L, Delfabbro PH. Motivators for change and barriers to help-seeking in Australian problem gamblers. J Gambl Stud. 2005;21(2):133–55.
- 57. Suurvali H, Hodgins D, Toneatto T, Cunningham J. Treatment seeking among Ontario problem gamblers: results of a population survey. Psychiatr Serv. 2008;59(11):1343–6.
- 58. Bellringer M, Pulford J, Abbott M, DeSouza R, Clarke D. Problem gambling-barriers to help-seeking behaviours. Auckland: Gambling Research Centre; 2008.
- 59. Hing N, Nuske E, Gainsbury S. Gamblers at-risk and their help-seeking behaviour. Melbourne: Gambling Research Australia; 2012.



- 60. Rodda SN. A systematic review of internet delivered interventions for gambling: prevention, harm reduction and early intervention. J Gambl Stud. 2021;38(3):967–91.
- 61. Forsström D, Spångberg J, Petterson A, Brolund A, Odeberg J. A systematic review of educational programs and consumer protection measures for gambling: an extension of previous reviews. Addict Res Theory. 2021;29(5):398–412.
- 62. Keen B, Blaszczynski A, Anjoul F. Systematic review of empirically evaluated school-based gambling education programs. J Gambl Stud. 2017;33(1):301–25.
- 63. St-Pierre R, Derevensky JL. Youth gambling behavior: novel approaches to prevention and intervention. Curr Addict Rep. 2016;3(2):157-65.
- 64. Messerlian C, Derevensky J. Social marketing campaigns for youth gambling prevention: lessons learned from youth. Int J Ment Health Addict. 2006;4:294–306.
- 65. Meyer G, Hayer T, Griffiths M. Problem gambling in Europe: challenges, prevention, and interventions. New York: Springer; 2009.
- 66. Williams RJ, West BL, Simpson RI. Prevention of problem gambling: a comprehensive review of the evidence and identified best practices.
- 67. Velasco V, Scattola P, Gavazzeni L, Marchesi L, Nita IE, Giudici G. Prevention and harm reduction interventions for adult gambling at the local level: an umbrella review of empirical evidence. Int J Environ Res Public Health. 2021;18(18):9484.
- 68. Reith G. Gambling and the contradictions of consumption: a genealogy of the "pathological" subject. Am Behav Sci. 2007;51(1):33-55.
- 69. Hing N, Russell AMT, Hronis A. A definition and set of principles for responsible consumption of gambling. Int Gambl Stud. 2018;18(3):359–82.
- 70. Wakefield MA, Loken B, Hornik RC. Use of mass media campaigns to change health behaviour. Lancet. 2010;376(9748):1261–71.
- 71. Yom-Tov E, Shembekar J, Barclay S, Muennig P. The effectiveness of public health advertisements to promote health: a randomized-controlled trial on 794,000 participants. npj Digit Med. 2018;1(1):24.
- 72. Jackson AC, Thomas S, Thomason NR, Ho W-Y. Longitudinal evaluation of the effectiveness of problem gambling counselling services, community education strategies and information products. 2002.
- 73. Murray R. Centre for Addiction and Mental Health's approach to supporting community-based problem gambling awareness initiatives. Toronto: Centre for Addiction and Mental Health; 2003.
- 74. Atkin CK. Survey and experimental research on effects of alcohol advertising. In: The effects of the mass media on the use and abuse of alcohol. Collingdale: DIANE Publishing; 1995. p. 39–68.
- 75. Strasburger VC. Adolescents and the media: medical and psychological impact. Thousand Oaks: Sage Publications, Inc; 1995.
- 76. Zac Australia. C'Mon Australia don't let the game play ya! [video file]. https://www.youtube.com/watch?v=cm34\_PEp4nQ. Accessed 19 Feb 2020.
- 77. Ferris JA, Wynne HJ. The Canadian problem gambling index. Ottawa: Canadian Centre on Substance Abuse; 2001.
- 78. Qualtrics. Qualtrics. Provo Utah, USA. 2005 [2022 version]. https://www.qualtrics.com. Accessed 1 Aug 2022.
- 79. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol. 2006;3(2):77–101.
- 80. Etherington K. Becoming a reflexive researcher. 2004.
- 81. Sheeran P, Harris PR, Epton T. Does heightening risk appraisals change people's intentions and behavior? A meta-analysis of experimental studies. Psychol Bull. 2014;140:511–43.
- 82. Ferrer R, Klein WM. Risk perceptions and health behavior. Curr Opin Psychol. 2015;5:85-9.
- 83. Williams R, Wood R. Internet gambling: a comprehensive review and synthesis of the literature. 2007.
- 84. Earle R. The art of cause marketing: how to use advertising to change personal behavior and public policy. Park Ridge: NTC Business Books: 2000.
- 85. Fontana A, Frey J. The art of science. The handbook of qualitative research. London: SAGE Publications; 1994. p. 361376.
- 86. Carey MA, Smith MW. Capturing the group effect in focus groups: a special concern in analysis. Qual Health Res. 1994;4(1):123-7.

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