

Lopez-Gonzalez, H. & Griffiths, M.D. (2019). Brand knowledge, similarity to story characters, and perceived influence of gambling advertising among Spanish sports bettors: A survey study. *International Journal of Mental Health and Addiction*, in press.

Abstract

The saturation of advertising stimuli to gamble have become a major source of concern in many countries, especially when it comes to sports betting. Despite the growth of advertising restrictions, very few evidence-based recommendations are readily available for policymakers. Furthermore, advertising is a cultural construct, and country-specific studies are needed to address the singularities of each market. The present paper provides empirical evidence concerning the impact of advertising gathered from a survey-based research with Spanish sports bettors (N=659). The results indicate that those gamblers experiencing more severe gambling problems also report higher knowledge of bookmakers' brands, higher similarity to the main story characters in sports betting advertisements, and a higher perceived influence of advertising on their behaviour. The results also found no differences between age and gender in terms of advertising impact. These findings will help inform Spanish regulation that seeks to reduce the negative effects of advertising.

Keywords: Gambling, gambling advertising; sports betting; gambling brands; advertising narratives; problem gambling

Introduction

In general, gamblers are reluctant to acknowledge advertising as having any significant impact on their gambling behaviour (Gainsbury et al., 2016). Gamblers have diminished the influence of gambling advertising in qualitative studies (Binde, 2009), although they frequently see it as influencing the gambling behaviour of others – something usually understood as a consequence of the so-called 'third-person effect' (Guerrero-Solé, Lopez-Gonzalez, & Griffiths, 2017; Youn, Faber, & Shah, 2000), which is typically stronger when it involves vulnerable groups and minors. Generally, gamblers do not endorse the idea that advertising persuaded them to initiate gambling, and feel more comfortable with the assumption that advertising does not transform non-gamblers into gamblers, but

instead redistributes the gambling market between already existing gamblers depending on the attractiveness of each brand's promotions (Hing, Cherney, Blaszczynski, Gainsbury, & Lubman, 2014).

However, when reporting their attitudes and behaviours in relation to gambling advertising in surveys, it has been repeatedly found that those experiencing gambling-related problems are more likely to report bigger perceived influence of advertising in their life (e.g., Clemens, Hanewinkel, & Morgenstern, 2017; Derevensky, Sklar, Gupta, & Messerlian, 2010; Hing, Lamont, Vitartas, & Fink, 2015b; Lamont, Hing, & Vitartas, 2016). Essentially, these studies have concluded that there is no way of establishing whether advertising has influenced the gambling of problem gamblers, or already being a problem gambler has exposed them to more gambling advertising. In contrast, other researchers have argued that, even after controlling for advertising exposure, problem gamblers report higher impact of advertising on their gambling involvement, gambling knowledge, and gambling awareness (Hanss, Mentzoni, Griffiths, & Pallesen, 2015).

Gambling advertising has increasingly come to the forefront of public debate in recent years due to its perceived pervasiveness and penetration in everyday life. The advertising of sports betting – one of the most rapidly growing types of gambling (Gainsbury et al., 2015) – has drawn particular attention. Sport fans are subject to numerous betting stimuli during sport events (Killick & Griffiths, 2018; Milner, Hing, Vitartas, & Lamont, 2013; Thomas, Lewis, Duong, & McLeod, 2012). This has prompted some scholar to explore whether minors are influenced by sports betting marketing techniques, with results showing children as young as five-years-old can recall gambling brands, and link them to their favourite sports teams (Bestman, Thomas, Randle, & Thomas, 2015).

Another matter of concern for the public has been the endorsement of betting brands by sports celebrities. Celebrity endorsement is an effective method of persuasion when the consumer views the endorser in alignment with the endorsed product (Mat Dom, Ramli, Lim Li Chin, & Fern, 2016), something that is likely to happen in sports betting contexts. The use of celebrities has long been theorised to generate a powerful early bond between children and brands (Ross et al., 1984). Some scholars have argued that in order to counterbalance the effectiveness of celebrity-endorsed gambling products, responsible gambling messages should also feature famous spokespeople (Shead, Walsh, Taylor,

Derevensky, & Gupta, 2011). In the UK and Spain, one study reported that sports betting advertisements portray celebrities in 23% of their narratives (Lopez-Gonzalez, Guerrero-Solé, & Griffiths, 2018). Alternatively, celebrity endorsement has also been proposed as a reinforcement of sports loyalty towards a team (Deans, Thomas, Daube, Derevensky, & Gordon, 2016). Furthermore, in instances where celebrities are not featured, spectators can also feel identification with the characters in the narrative, developing the idea of being self-reflected in their stories (Hirschman, 1988).

The present study

To explore these aforementioned issues in the context of sports betting, the present paper focuses on three dimensions of gambling advertising in relation to sports betting behaviour. Firstly, it examines the overall influence that sports bettors think gambling advertising has had on their behaviour. Secondly, it examines how knowledgeable sports bettors are about sports betting brands. Finally, it assesses how similar sports bettors feel they are in relation to the main characters that feature in sports betting advertisements. These three dimensions are analysed in connection with the gambling problems reported by sports bettors in order to examine whether problem gambling is associated with gambling advertising impact.

The data for the present study were collected in Spain, where sports betting advertising has become a subject of major public concern. In 2011, a new law that legalised online gambling was passed (Official State Gazette, 2011). This legalisation concerned the proliferation of gambling advertisements, which brought considerable attention to the potentially pernicious effects of such advertising. The estimated lifetime pathological gambling prevalence in Spain is 0.9% (Direccion General de Ordenacion del Juego [DGOJ] – i.e., the Directorate General for the Regulation of Gambling – 2016), and due to inconsistencies in measurement, no data is available assessing whether the prevalence of problem gambling is increasing or decreasing. In 2017, the sports betting market had a gross gambling yield of €752 million, becoming the fastest growing gambling form in the country, with an approximate expenditure in advertising and promotions of €215 million (including all gambling products) (DGOJ, 2017).

Methods

Sample recruitment

A sample of Spanish adult gamblers who had bet on sports within the past twelve months was targeted. To obtain a sample with such characteristics, an online panel research company was hired. The company identified a sample of approximately 1,200 adults with the aforementioned profile. These adults received an invitation to participate in the study in March 2017. Within a fortnight, 848 sports bettors had responded the invitation, but some of these did not complete the questionnaire. After excluding those who did not complete the questionnaire, 659 participants met the inclusion criteria and fully completed the survey via the *Qualtrics* online platform.

Participants

Participants had a mean age of 35.1 years (SD=10.12), and the sample was ostensibly skewed toward male participants ($n=489$, 74.2%). In terms of their living situation, 11.5% lived alone, 44.3% lived with their partner/spouse, 39.3% with other family members excluding partner/spouse, 3.6% with friend, and 1.2% in other living situations. Regarding education, 60.8% had obtained a Bachelor's degree or higher, 21.1% completed vocational or technical training, 17.3% had completed high school, and 0.8% did not complete any formal educational studies. Approximately four-fifths of the sample (78.5%) comprised paid workers, 12.7% were students, 6.4% were unemployed, 0.9% retired, and 1.5% had other occupational situations.

Ethics

Participants clicked to accept the terms and conditions of the study in the research panel's online platform. They were informed of their right to withdraw from the study at any point, and about the confidentiality and anonymity of their data. Ethical approval for the project was obtained from the first author's university research ethics committee. Participants' time was rewarded by points that could be later exchanged for gifts in the research company's online store.

Measures

Knowledge of brands in a product class (Fischer, Völckner, & Sattler, 2010). This instrument assesses the certainty a consumer expresses about knowing most of the brands in a particular product category. It comprises three items, and they are rated using a 7-point Likert scale from 'strongly disagree' to 'strongly agree'. Reliability for the present

study was excellent ($\alpha=.902$). In this study, the items were specifically adapted to sports betting brands (e.g., *I have a very clear picture in my mind of many different sports betting brands*).

Impact of sports gambling promotions on behaviour (Hing, Lamont, Vitartas, & Fink, 2015a). This instrument assesses the perceived influence that sports bettors think gambling promotions have on them. This scale consists of six items (e.g., *'gambling promotions during televised sport have increased your frequency of sports betting'*) and they are rated on a 5-point Likert scale from 'strongly disagree' to 'strongly agree'. Reliability for the present study was excellent ($\alpha=.944$).

Similarity to story character (Bhatnagar & Wan, 2011). This instrument assesses the amount of similarity between one's self and an individual in a story (in this case the narrative in a gambling advert). The scale consists of three items (e.g., *'how similar to the characters in the stories do you think you are?'*) and they are rated on a 4-point Likert scale from 'not similar at all' to 'very similar'. Reliability for the present study was excellent ($\alpha=.914$). In this study, the items were specifically adapted to sports betting brands.

Problem Gambling Severity Index (PGSI, Ferris & Wynne, 2001). The Spanish adaptation of the PGSI was used in the present study (Lopez-Gonzalez, Estévez, & Griffiths, 2018). The PGSI is a screening tool for gambling problems that focuses more than other DSM-based instruments on the negative social consequences of gambling behaviour (Currie, Casey, & Hodgins, 2010). Items are rated on a 4-point scale (from 0=never, to 3=almost always). The final score ranges from 0 to 27, and categorizes respondents into four groups (0=non-problem gamblers; 1–2=low-risk gamblers; 3–7=moderate-risk gamblers; and 8 or more=problem gamblers). Reliability of the scale in the present study was excellent ($\alpha=.945$).

Demographic information. Data regarding participants' age, gender, occupation, educational level, and who were they living with was also collected.

Data analysis

Data were analysed using IBM SPSS 21 for Mac. The data were not normally distributed and presented homoscedasticity issues. Consequently, non-parametric statistical tests were used. Kruskal-Wallis tests were performed to assess mean differences between PGSI groups, and chi-square tests were used to examine the relationships between categorical variables. The targeted critical threshold for significance ($\alpha=.05$) was readjusted using Bonferroni corrections to account for potential bias regarding familywise error.

Results

The three advertising-related variables did not exhibit any statistically significant relationship with the general demographic indicators. Knowledge of brands ($M=4.25$, $SD=1.51$) was not associated with age (Spearman's $Rho=.012$, $p=.766$), gender ($\chi^2(1)=.949$, $p=.330$), living situation ($\chi^2(4)=7.506$, $p=.111$), education ($\chi^2(3)=6.936$, $p=.074$), or occupation ($\chi^2(4)=3.163$, $p=.531$). Likewise, similarity to story characters ($M=1.69$, $SD=.73$) was not associated with age (Spearman's $Rho=.003$, $p=.933$), gender ($\chi^2(1)=1.405$, $p=.236$), living situation ($\chi^2(4)=6.752$, $p=.150$), education ($\chi^2(3)=4.904$, $p=.179$), or occupation ($\chi^2(4)=2.803$, $p=.591$). Finally, scores of perceived influence of sports betting promotions ($M=2.09$, $SD=1.05$) did not vary significantly in relation to age (Spearman's $Rho=.004$, $p=.928$), gender ($\chi^2(1)=.985$, $p=.321$), living situation ($\chi^2(4)=4.079$, $p=.395$), education ($\chi^2(3)=4.094$, $p=.252$), and occupation ($\chi^2(4)=7.019$, $p=.135$). Similarly, the majority of demographic factors did not associate with PGSI scores, the only exception being those living with their partner/spouse showing significantly higher gambling severity ($\chi^2(12)=27.210$, $p=.007$).

INSERT TABLE 1 ABOUT HERE

However, all advertising-related variables showed statistically significant relationships with PGSI (see Table 1 for a summary of the main findings). Rank differences in perceived influence of gambling promotions were significant between all gambling severity groups ($\chi^2(3)=247.13$, $p<.001$). The effect size of this relationship was $\eta^2=.373$, which is considered large according to the interpretation criteria proposed by Cohen (1988). Participants also reported feeling similar to the characters portrayed in sports betting advertising. More specifically, the more problematic the gambling behaviour, the higher the perceived similarity to characters in the gambling adverts ($\chi^2(3)=196.30$,

$p < .001$). This association also exhibited large effect size ($\eta^2 = .295$). Problem gamblers also reported wider knowledge of sports betting brands ($\chi^2(3) = 35.383, p < .001$), although these differences were only significant between problem gamblers and the other three groups, but not between non-problem gamblers, and low- and moderate-risk gamblers. The effect size was intermediate for this variable ($\eta^2 = .295$).

Discussion

The findings of the present study showed that bettors experiencing more gambling-related problems also reported higher knowledge of sports betting brands, higher similarity to sports betting story characters, and higher perceived influence of sports betting advertisements. Prior studies have reported similar results (e.g., Clemens et al., 2017; Derevensky et al., 2010; Hing et al., 2014, 2015b). However, the present study contributes significantly to the existing body of literature in two meaningful ways.

First, the findings demonstrated that bettors are not only aware of sports betting advertising, but they also relate on a deeper level with the narratives that such advertising presents. The fact that problem gamblers felt higher identification with the main characters of the advert narratives has a number of implications for responsible gambling policies. If story characters are relevant for problem gamblers, this could mean that the use of influential celebrities might be having a deleterious impact on their behaviour, as well as the way bettors conceptualise sports betting.

Although restrictions of celebrity endorsements – particularly regarding the protection of minors – have been already proposed by numerous researchers (e.g., Bestman et al., 2015; Monaghan, Derevensky, & Sklar, 2008; Pitt, Thomas, Bestman, Stoneham, & Daube, 2016; Sandberg, Gidlof, & Holmberg, 2011), the findings of the present paper could further substantiate such recommendations on the grounds of identification between problem gamblers and story characters in gambling adverts. Empirical research has shown that sports betting narratives in adverts depict stories of success (Lopez-Gonzalez, Guerrero-Solé, et al., 2018). The evidence that more involved gamblers feel similar to the characters personifying such success is important, and lead to the recommendation that regulation-level actions should limit the range of narratives and characters that sports betting adverts can depict.

Second, another major implication from the present study is the relative differences found between perceived impact of advertising, similarity to story characters in gambling adverts, and knowledge of brands. Whereas the first two outlined clear distinctions between gambling severity groups, knowledge brands only showed a significant difference between the problem gambling group and the remaining gamblers. This means that, except for those bettors highly engaged in sports betting, all of the bettors are exposed to similar gambling advertising regardless of their engagement with betting, something that has already been suggested (Hanss et al., 2015). This finding indicates that in a context defined by widespread promotion of gambling, even less involved gamblers possess a deep knowledge of advertised betting products. This adds to the findings from environmental scan studies that have highlighted the pervasiveness of sports betting advertising (e.g., Milner et al., 2013; Sproston, Hanley, Brook, Hing, & Gainsbury, 2015). Another implication of this finding is that sports betting advertising might be targeting very large and heterogeneous groups of consumers, resulting in a long-term normalisation of betting even among those who are not particularly involved with such activity.

Adding to the pervasiveness and transversal penetration of gambling advertising, the present study did not find significant differences between the most important sociodemographic indicators. More relevantly, exposure to sports betting does not seem to differentiate between age groups or gender. These findings align well with previous studies that found that – despite men generally engage more frequently in sports betting than women – when controlling for excessive gambling, both women and men show a similar behavioural pattern (LaBrie, LaPlante, Nelson, Schumann, & Shaffer, 2007).

The present study is not without its limitations. As with any cross-sectional self-reported survey-based studies, the findings do not shed light into the causality of the relationship between gambling advertising exposure, perceived impact, and problem gambling. Longitudinal studies are therefore needed to help establish causality between variables. Self-report studies are also subject to well-known response biases which may have impacted on the findings. Also, as noted in previous research with sports bettors in Australia (Hing, Russell, Vitartas, & Lamont, 2016), the use of an online research panel company appears to bias gambling behaviour towards higher frequency gamblers, thus over-representing the proportion of problem gamblers in the population. This is why the

results of this study cannot be generalized to other contexts or samples. In addition, all the participants were Spanish and the findings need to be replicated in other countries and cultures before any definitive conclusions can be drawn about the effect of sports betting advertising on bettors' subsequent behaviour.

Conclusion

Notwithstanding these limitations, this study presents potentially important empirical evidence of the self-reported influence of gambling advertising among a cohort of Spanish sports bettors. The study was carried out in Spain, where sports betting advertising was a rarity until the 2011 legislation that liberalised the gambling market and introduced provisions to regulate online gambling. As in many other jurisdictions in Europe and abroad, Spain is witnessing a growing public demand for wider restrictions of the quantity and quality of gambling advertising. The findings in the present paper demonstrate that those experiencing gambling problems think gambling advertising is deleterious to their wellbeing. This evidence is new in the Spanish context, and helps make the case for a tighter regulation of sports betting narratives within gambling adverts, in particular those depicting successful characters with whom the audience feels personal identification.

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Table 1. Non-parametric one-way analysis of variance between advertising-related variables and PGSI groups

| | Non <i>n</i> = 256 (38.8%) | Low <i>n</i> = 175 (26.6%) | Mod <i>n</i> = 102 (15.5%) | PG <i>n</i> = 126 (19.1%) | χ^2 ^a | η^2 | C |
|--------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|-----------------------|-------------------|--------|
| Knowledge of brands | 289.85 ^b | 328.13 | 331.75 | 412.75 | 35.383** | .049 ^c | N |
| Similarity to characters | 245.9 | 311.93 | 335.24 | 521.72 | 196.30** | .295 | N L |
| Perceived impact | 226.61 | 305.34 | 369.77 | 542.11 | 247.13** | .373 | N L |

Notes. ^aKruskal-Wallis tests. Degrees of freedom = 3, for all comparisons. ^bMean rank. ^cEffect size computed via Eta squared (η^2). ^dContrasts used Bonferroni adjusted p-values. * $p < .05$, ** $p < .001$.

Non = Non-problem gambler; Low = Low-risk gambler; Mod = Moderate-risk gambler; PG = Problem gambler.