



Sports Betting Advertising: A Systematic Review of Content Analysis Studies

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Abstract

A systematic review of empirical studies that used quantitative, qualitative, or a mixed-methods approach to content analysis sports betting advertising was conducted. Study attributes were examined including the main findings, key themes, research design, focus of analysis, type of interpretation, use of theory, media type, inter-coder reliability measures, and recommendations for future studies. The findings showed that the studies (N=15) were all published relatively recently (since 2012), predominantly focused on the content of television advertisements, and there was a general lack of reporting on inter-coder reliability. The narratives most commonly identified within sports betting advertisements were friendship and humour. Advertisements were found to be embedded into professional sports games, and this type of advertising occurred more frequently when compared to commercial advertising during televised sporting events. In order to enhance the sports betting advertising literature, researchers need to ensure that they are meeting scientific standards, especially when it comes to reliability measures. Such studies can add to an understanding of how sports betting advertisements are presented to the public and infer what the potential impact of the availability and exposure of these advertisements may be.

Keywords Sports betting · Sports betting advertising · Content analysis · Sports betting marketing strategies

The growth of the gambling industry has been driven by changing consumer behaviour which is partly due to evolving technological advancements. It has been estimated that the global online gambling market is worth approximately \$40 billion each year (Edison Investment Research, 2019). Sports betting is a gambling activity in which online participation has been increasing (Gambling Commission, 2018), and it is now the most popular online gambling activity in Europe, comprising 41% of the overall online gambling revenue (European Gaming & Betting Association, 2020). The increase in the availability of

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online gambling has been accompanied by an increase in the frequency of online sports betting advertisements, particularly television advertisements, sponsorship (Lamont et al., 2011;), and marketing content distributed via social media platforms (Torrance et al., 2021). In the UK, some of this increase has been attributed to the Gambling Act 2005, which was introduced in 2007, permitting television advertising for sports betting, online casinos, and online poker (Gambling Act, 2005).

Gambling advertising, including sports betting advertising, is no longer restricted to environments that are exclusively for gambling, and the marketing of these products now occurs in everyday community and media spaces (Deans et al., 2017). A recent Gambling Commission survey indicated that 81% of respondents from Great Britain ($n = 6258$) reported seeing traditional gambling advertisements (e.g., on television, billboards, newspapers, and on the radio), 78% reported seeing sponsorships (in sports venues, on sports merchandise, and associations with sporting competitions), and 68% reported seeing online advertising (advertisements on websites, social media, on live streaming or video sharing platforms, within app games, or sent directly via text, email or app push notification) (Gambling Commission, 2021).

It has been previously argued that the content, frequency, and availability of gambling advertising may influence gambling behaviours and the likelihood of an individual experiencing gambling-related problems (Håkansson & Widinghoff, 2019). Research has indicated that advertising can influence gambling attitudes, intentions, and behaviours (Hing et al., 2014a; Hing 2014). The impact of this marketing appears to vary between different population subgroups. For example, research has found that male gamblers have an overall higher awareness of gambling advertisements (Gambling Commission, 2021). The gambling literature has indicated that young men are the target audience for sports betting operators (Deans et al., 2016) and the content of advertisements often aligns with the common characteristics of online sports bettors, which is typically young, male, tech-savvy, and professional (Hing et al., 2016). Qualitative research has indicated that men themselves feel targeted by sports betting advertisements and feel encouraged to gamble as a result (Thomas et al., 2012; Deans et al., 2017).

The growth of gambling marketing and advertising, together with developments in technology, has resulted in concerns about potentially negative effects of marketing and advertising, especially upon children, young people, and vulnerable individuals (Ipsos MORI, 2020). The negative influence from exposure to sports betting advertising has been reported to be more common in problem gamblers (Hing et al., 2019; Russell et al., 2018). Moreover, problem gamblers have been identified as being more likely to place impulse bets in response to the promotion of sports betting, compared to non-problem gamblers (Hing et al., 2014b, 2015, 2018a).

Research has also indicated that exposure to gambling advertising is significantly associated with the likelihood of children gambling in the future (Ipsos MORI, 2020). Ipsos Mori (2020) conducted a quantitative survey with children and young adults in Great Britain ($n = 1091$; aged 11–24 years) and reported that gambling susceptibility was particularly prevalent amongst children who had higher brand awareness, greater exposure to advertising, and those who took part in marketing activities from gambling operators. A further concern is that some gambling advertisements appear to be directed towards children (e.g. Derevensky, 2008; Monaghan et al., 2008). Advertisers often employ techniques or themes that may appeal to children. For example, some sports betting advertisements have been found to incorporate humour, celebrity endorsements, memes, and animations (Pitt et al., 2018; Thomas et al., 2015). Other research has

indicated that young people who feel more favourably towards sports betting advertising are more likely to perceive betting as a risk-free way to win money (Djohari et al., 2019).

Studying the messages within gambling advertisements has typically employed a content analysis methodology. Content analysis is usually defined as a replicable, valid, and systematic technique for compressing multiple words into fewer content categories depending on explicit rules of coding which have been set out in the method (Berelson, 1952; Krippendorff, 1980). It can also be used to synthesis large volumes of data, make inferences from observed communications, and to extract manifest as well as latent content (Krippendorff, 2004). Manifest content describes evidence that is directly seen (i.e. the obvious components), while latent content refers to analysis of the underlying meaning of such content (Downe-Wamboldt, 1992). There are different ways of applying content analysis. Researchers examining sports betting advertisements, particularly in the past 10 years, have begun to assess the frequency of different messages, advertising channels, target audience, and the specific themes or narratives depicted within the advertisements. Although content analysis does not (and cannot) assess the direct effects on individuals from advertising, it can offer insights into where potential effects might occur.

To date, previous gambling advertising reviews have touched upon the use of content analysis methodology in studies (Binde, 2007; Binde, 2014; Newall et al., 2019a; Torrance et al., 2021). However, no studies have systematically analysed the content of sports betting advertisements. A recent rapid review of gambling marketing, content, delivery, and structural features by Torrance et al. (2021) concluded that there is an absence of research and methodological diversity regarding the characteristics of gambling advertising. The authors argued that there was a need for a more thorough understanding and additional research into the characteristics of gambling advertising in order to develop suitable advertising regulations, promote more ethical marketing, and to effectively minimise potential harm. Moreover, it is important not only to look at the results, but what methods researchers are using so that the findings for the future regulation of gambling advertising can be supported using evidence-based empirical research (Binde, 2014). Therefore, the present paper examined studies reporting on content analytic studies of sports betting advertising in the media to (i) identify studies examining sports betting advertising content, (ii) report on the attributes of these studies, and (iii) identify gaps and to develop recommendations for future content analysis studies.

Methods

Design

Inclusion Criteria

To be included as an output to be evaluated, the published paper had to (i) have been published in English; (ii) report an empirical study collecting primary data; (iii) have been published in a peer-reviewed journal; (iv) have examined sports betting advertising messages only and no other 'risky' products (e.g. alcohol and tobacco) or gambling product (e.g., poker or bingo); (v) collect primary research data; and (vi) have used a content analysis design, either standalone or as part of a mixed-methods approach. There were no date restrictions because no previous systematic reviews were identified on this topic.

Search Strategy

Between September and October 2021, a literature search was conducted using the electronic databases *PsycINFO*, *PubMed*, and *Scopus*. A range of search terms were used to capture different types of advertising (sponsorship, marketing, promotion, and advertising) and sports betting (gambling, sports betting, and online gambling), and content analysis. Further manual searches on *Google Scholar* were also conducted to identify any additional studies not retrieved from the aforementioned databases. After duplicates were removed, the first author reviewed titles and abstracts against the inclusion criteria. Full-text review was conducted by the first author. The reference lists of all included papers were also searched.

Quality Assessment

The methodological quality of the full-text studies was assessed using the Mixed Methods Appraisal Tool (Hong et al., 2018), which is an appropriate tool to assess the quality of diverse study designs including qualitative, quantitative descriptive, and mixed-methods studies. The first author rated the methodological quality criteria individually and these were discussed and agreed upon with the second author. The summary of the quality assessment is presented in Table 2.

Data Analysis

Data were extracted concerning sample size, research design, focus of analysis, unit(s) of analysis, type of interpretation, use of theory, main research outcomes, coders, and intercoder reliability (Tables 1 and 2). Because of marked differences between the included studies in sample composition and methods of content analysis, reflexive thematic analysis was also performed to identify and highlight any key themes emerging from each of the studies (Braun & Clarke, 2006, 2012). This process involved applying the six phases of thematic analysis as outlined by Braun and Clarke (2006): (i) familiarisation with the data, (ii) generating initial codes, (iii) constructing themes, (iv) reviewing themes, (v) defining and naming themes, and (vi) writing-up the results. Findings were grouped into five themes: (i) method and timing of delivery, (ii) frequency and duration, (iii) product advertised, (iv) responsible gambling information, and (v) salient themes and narratives. The analysis was conducted by the first author alongside discussion with the second author to ensure the applicability of the final themes.

Results

Figure 1 summarises the results of the search. A total of 2189 papers were retrieved using the search strategy shown in Fig. 1. After removing duplicates, 2132 papers were left for title and abstract screening. Following abstract searching, 28 studies were identified for full-text review. From full text-review, a total of 15 papers were identified for

Table 1 Sample characteristics and coder information for studies included in the systematic review

Author (year)	Country	Focus of analysis	Research design	Type of interpretation	Units of analysis	Sample selection frame	Sample size	Coders	ICR
Deans et al. (2016)	Australia	Latent	Both (directed and inductive)	Mixed methods interpretive content analysis	Television advertisements from 11 wagering brands	2008–2015	85	Two	-
Houghton et al. (2019)	UK	Manifest	Inductive	Mixed-methods summative content analysis	Social media posts (Twitter) from five gambling operators and five gambling affiliate pages	14-day period—Thursday 14 June 2018 to Wednesday 27 June 2018	5029 tweets	Two	Cohen's $k = .668$
Killick and Griffiths (2020)	UK	Manifest	Both (inductive and deductive)	Mixed-methods content analysis	Social media post (Twitter) from 10 gambling operators	August 10–12, 2018	3375 tweets	Two	-
Lopez-Gonzalez, et al. (2018a)	UK	Latent	Inductive	Qualitative using grounded theory	Television advertisements from 21 betting brands	2014–2016	102	Two	-
Lopez-Gonzalez, et al. (2018b)	British and Spanish	Latent and manifest	Both (inductive and deductive)	Qualitative	Television adverts from 29 sports betting brands	2014–2016	135	Three	Krippendorff's alpha = 0.956
Lopez-Gonzalez et al. (2018c)	British and Spanish	Manifest	Inductive	Mixed-methods	Television advertisements from 29 sports betting brands	2014–2016	135	Three	Krippendorff's alpha coefficients ranged from 0.78 to 1

Table 1 (continued)

Author (year)	Country	Focus of analysis	Research design	Type of interpretation	Units of analysis	Sample selection frame	Sample size	Coders	ICR
Lopez-Gonzalez, et al. (2018d).	British and Spanish	Latent	Deductive	Qualitative	Television advertisements downloaded from YouTube and recorded from directly from television during nine live football matches	2014–2016 (YouTube) and May to June 2016 (recorded television advertisements)	133	Four	Krippendorff's alpha = 0.956
Newall (2015)	UK	Manifest	Inductive	Quantitative	High street bookmaker window advertisements and advertisements recorded from the television	2014 (during the World Cup)	179 bookmaker observations and 103 TV matches	-	-
Newall (2017)	UK	Manifest	Inductive	Mixed-method; content analysis and experimental	Live-odds sports betting television advertisements	January–February 2016	63 adverts recorded from 28 matches	One	-
Newall et al. (2019b)	UK	Manifest	Inductive	Mixed-method using frequency counts and content analysis	Televised 'live-odds; advertisements	2018 football World Cup	69 advertisements from five bookmakers	Two	-

Table 1 (continued)

Author (year)	Country	Focus of analysis	Research design	Type of interpretation	Units of analysis	Sample selection frame	Sample size	Coders	ICR
Pitt et al. (2018)	Australia	Manifest	Deductive	Mixed-method interpretive content analysis	Sports betting advertisements from bookmaker websites, YouTube, and via Google searches	2008–2015	91 advertisements from 11 bookmakers	One	-
Purves et al. (2020)	UK	Manifest	Deductive	Quantitative	Live sporting events recorded from the television	February–November 2018	9 advertisements recorded from live football matches ($n = 5$), tennis ($n = 1$), Formula 1 ($n = 1$), boxing ($n = 1$), and rugby union ($n = 1$)	Two	Reported % of code agreed on between coders (97.5% average agreement was reported).
Rawat et al. (2020)	Australia	Manifest	Inductive	Quantitative; content analysis and ecological momentary assessment	Email and text messages received from sports betting operators	26 September to 2 October 2017 and 3–9 November 2017	931 email and text messages	-	-
Stadler and Naraine (2020)	Australia	Manifest	Inductive	Mixed-methods; frequency counts and thematic analysis	Tweets from six bookmakers	-	16,666 tweets	-	-

Table 1 (continued)

Author (year)	Country	Focus of analysis	Research design	Type of interpretation	Units of analysis	Sample selection frame	Sample size	Coders	ICR
Thomas et al. (2012)	Australia	Manifest	Inductive	Mixed-methods	Recorded Australian football league matches and data collected in stadiums	10–13 June 2011	Data from four matches from stadiums and eight televised matches	Two	-

ICR inter-coder reliability

Table 2 Research question, theory used and main results for studies included in the systematic review

Author (year)	Research question(s)	Quality assessment (MMAT) ^a	Theory	Main results
Deans et al. (2016)	What symbolic strategies are used in sports betting advertisements?	*****	Symbolic consumption process	Ten appeal strategies were identified: mate-ship, sports fan rituals, gender stereotypes, social status, adventure, thrill and risk, sexualised imagery, happiness, power and control, and patriotism.
Houghton et al. (2019)	What type of content is posted on Twitter by British gambling operators and affiliates	*****	-	A total of nine categories of content posting were identified across the dataset: direct advertising, betting assistance, sports content, customer engagement, humour, update of current bet status, promotional content, safer gambling, and 'other'.
Killick and Griffiths (2020)	How do British sports betting operators market their products on Twitter?	*****	-	Less than 10% of tweets contained RG information, hashtags were used to link tweets to major sports events, and promotional content was commonly posted. The most common form of inducements advertised were requested odds, boosted odds, and in-play betting odds.
Lopez-Gonzalez et al. (2018a)	Addresses individual narratives found within sports betting advertising in order to hypothesise a single core narrative.	****	Grounded theory	The authors' found that individual themes could be aligned into one main narrative, creating a dual persuasive strategy of sports betting advertising which (i) enhanced the perceived risk involved in betting while (ii) increasing the perceived control of bettors.

Table 2 (continued)

Author (year)	Research question(s)	Quality assessment (MMAT) ^a	Theory	Main results
Lopez-Gonzalez et al. (2018b)	Explore how do advertisements seek to normalise betting behaviours	****	Social representations theoretical	In-play betting was observed in half of the advertisements. Bettors were shown with people around them but with little social interaction emphasising the solitary act that mobile betting promotes. Bettors were shown staking small sums of money with potentially high-risk returns.
Lopez-Gonzalez et al. (2018c)	How is eating low nutritional value food (LNVF) and drinking alcohol in sports betting adverts represented in sport culture and how is drinking alcohol and eating LNVF depicted in relation to friendship building	****	-	Sports betting advertising was found to align alcohol drinking with sports culture and emotionally-charged situations. Alcohol drinking featured more often in advertisements with a higher number of individuals, associating friendship-building with alcohol drinking (particularly beer) in the context of sports betting.
Lopez-Gonzalez et al. (2018d).	What are the metaphorical conceptualisations in online sports betting advertising	****	Conceptual metaphor theory	Four main structural metaphors that shaped how sports betting advertising can be understood were identified: betting as (i) an act of love, (ii) a market, (iii) a sport, and (iv) a natural environment. The metaphors gave the impression of bettors being active players, with an executive role in the sport events bet upon, and greater control over bet outcomes.
Newall (2015)	To investigate how British bookmakers promote special bet types	****	Support theory	Special bet types were advertised in one of two ways: (i) by advertising complex bet types with high expected losses; and (ii) advertising representative events within a given complex bet type

Table 2 (continued)

Author (year)	Research question(s)	Quality assessment (MMAT) ^a	Theory	Main results
Newall (2017)	Explore how sports betting operators advertise betting odds during televised English Premier League matches	*****	-	Live-odds that were advertised on television were biased towards complex bets (e.g., a bet where individuals had to choose multiple outcomes), rather than simple bet types (e.g., who will win a match). The more complex bet types that were advertised were associated with high bookmaker profit margins.
Newall et al. (2019b)	To measure the examine the content of the World Cup 2018 live-odds advertising	*****	-	Sports betting advertisements that promoted live betting odds made them appear more complex (which had multiple events) and 'urgent', thus making the odds appear more urgent.
Pitt et al. (2018)	Examine whether sports betting advertisements contain strategies that may have particular appeal among children	*****	-	The advertisements contained attention strategies, particularly music, voiceovers, and catchy slogans that may have particular appeal for children.
Purves et al. (2020)	Explore the nature and frequency of gambling marketing in multiple televised sporting events broadcast in the UK.	*****	-	Multiple marketing techniques were used, including: shirt-sponsorship, pitch-side advertising, post-match interview boards and during commercial breaks.

Table 2 (continued)

Author (year)	Research question(s)	Quality assessment (MMAT) ^a	Theory	Main results
Rawat et al. (2020)	What is the content of direct messages (text and email) received from wagering operators, and to what extent do they contain certain inducements?	*****	-	Emails provided more information than texts (e.g. contained images, more information/text, and promoted the operators' social media platform). Inducements were offered in 76.6% of messages for sports bettors and 88.4% in messages for race bettors. Bonus bets (or free bets) were the most commonly offered incentive. The majority of messages included a responsible gambling message, terms and conditions, and an option to opt out of receiving further messages.
Stadler and Naraine (2020)	To what degree are sports betting operators engaging in relationship marketing?	*****	-	Sports betting operators extensively used hashtags and mentions on Twitter. They also discussed professional sport, sub-brands, betting language, action words, and influencers. These Twitter accounts posted frequently between 6pm and 6am, suggesting that these operators are promoting their products when sports and their users are most active
Thomas et al. (2012)	To investigate the content, length and frequency of marketing strategies used by sports betting operators during i) televised broadcasts and ii) at stadiums during live matches	*****	-	There were found to be multiple marketing strategies used at stadiums which were used to: (i) encourage individuals to bet live during the sporting event; (ii) connect sports betting with fans overall experience of the game; (iii) embed sports betting within the match.

^aStudies were scored as follows: - (0% of quality criteria met); *(20% of quality criteria met); ***(40% of quality criteria met); ****(60% of quality criteria met); *****(80% of quality criteria met); and ***** (100% of quality criteria met)

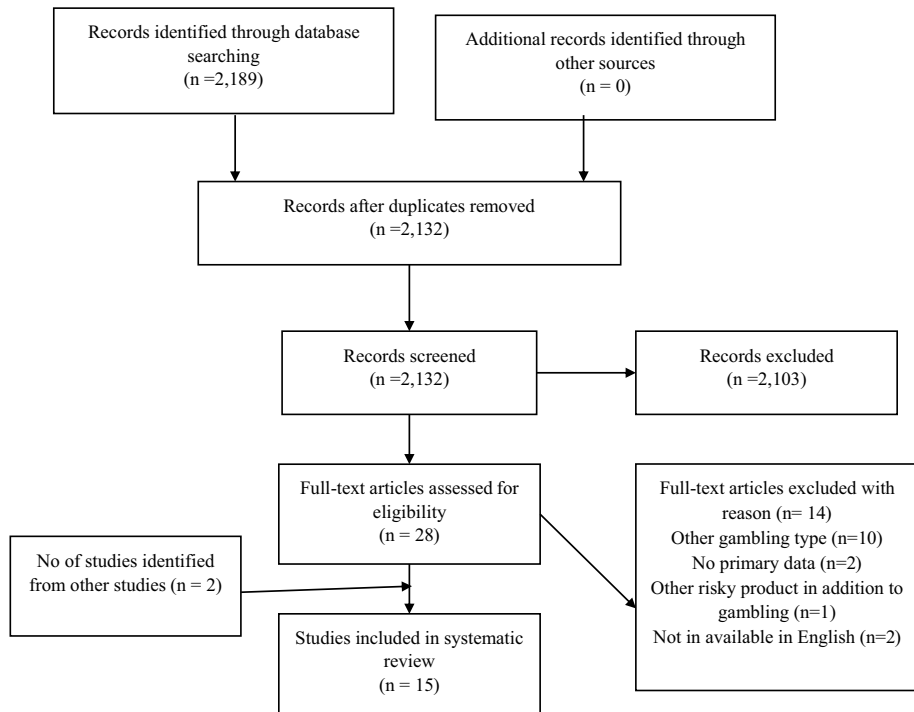


Fig. 1 PRISMA flowchart of the systematic review

inclusion. Two additional studies were identified through searching the reference lists of included studies (Newall et al., 2019b; Thomas et al., 2012).

Characteristics of Included Studies

The final sample included five studies using Australian samples (Deans et al., 2016; Pitt et al., 2018; Rawat et al., 2020; Stadder & Naraine, 2020; Thomas et al., 2012), seven using British samples (Houghton et al., 2019; Killick & Griffiths, 2020; Lopez-Gonzalez et al., 2018a; Newall, 2015, 2017; Newall et al., 2019b; Purves et al., 2020), and three using combined British and Spanish samples (Lopez-Gonzalez et al., 2018b, c, d). The papers included in the present review were published between 2012 and 2020, with 12 of the 15 studies having been published in the last 5 years. Nine studies employed a mixed-methods approach (Deans et al., 2016; Houghton et al., 2019; Killick & Griffiths, 2020; Lopez-Gonzalez et al., 2018c; Newall, 2017; Newall et al., 2019b; Pitt et al., 2018; Stadder & Naraine, 2020; Thomas et al. 2012), three studies employed a qualitative approach (Lopez-Gonzalez et al. 2018a, b, d), and three studies employed a quantitative approach (Newall, 2015; Purves et al. 2020; Rawat et al., 2020).

In some of the studies, researchers developed coding categories based on theory (Lopez-Gonzalez et al., 2018d), extant literature and past evidence (Deans et al., 2016; Pitt et al., 2018; Purves et al., 2020) or in a deductive manner. For example, Lopez-Gonzalez et al. (2018d) developed a coding schedule guided by conceptual metaphor theory (CMT) in order to examine the structural metaphors that are present in online

sports betting advertising. Other studies developed coding schedules based on evidence found in previous alcohol, tobacco, and gambling research (e.g. Deans et al., 2016; Pitt et al., 2018; Purves et al., 2020). One study adapted schemas previously employed by other gambling researchers (Killick & Griffiths, 2020), whilst the remaining studies adopted an inductive approach to develop their own coding schemes.

Eleven of the studies examined the manifest content of the advertisements, while four of the studies (Deans et al., 2016; Lopez-Gonzalez et al., 2018a, b, d) examined the latent content of the sports betting advertisements. Three of these studies used theory to guide the assessment of the advertisement content. Deans et al. (2016) applied a coding framework in order to investigate the extent and implementation of symbolic appeal strategies and the way in which symbolic consumption processes are used to coordinate the marketing of products with culturally and socially valued meanings. The study by Lopez-Gonzalez et al. (2018b) referred to the social representations theory (SRT) framework in order to understand the social representation of betting behaviour by bookmakers. Finally, using Lakoff's conceptual metaphor theory (CMT; Lakoff and Johnson, 1981), Lopez-Gonzalez et al. (2018d) identified four main structural metaphors that contributed to the understanding of online sports betting.

Four studies reported inter-coder reliability coefficients (Houghton et al. 2019; Lopez-Gonzalez et al. 2018b, c, d). Three studies used Krippendorff's alpha to calculate the inter-reliability of the coders. Krippendorff's alpha (α) is the most appropriate reliability coefficient typically suggested as a standard reliability measure for content analysis (Hayes & Krippendorff, 2007; Riffe et al., 2005). One study used Cohen's kappa (Houghton et al. 2019). This study indicated an acceptable level of agreement ($k = 0.67$, which is above the 0.61 minimum needed agreement to be classed as substantial). Four studies (Deans et al. 2016; Houghton et al. 2019; Lopez-Gonzalez et al. 2018b, c) refer to the percentage of the sub-sample that was tested for reliability (10%, 10%, 17.03% and 17.03%). Purves et al. (2020) specified the amount of data that were tested for reliability in duration (30 min of the footage).

Main Findings

The main findings of the included studies are presented in Table 2. The findings are discussed under the following headings: (i) method and timing of delivery, (ii) frequency and duration, (iii) product advertised, (iv) responsible gambling information, and (v) salient themes and narratives.

Method and Timing of Delivery

The data collection dates included the following: Round 12 of the Australian Football League in 2011 (Thomas et al., 2012); advertisements between 2008 and 2015 (Deans et al., 2016; Pitt et al., 2018); during the 2014 soccer World Cup (Newall, 2015); during the 2018 soccer World Cup (Newall et al. 2019b); the opening weekend of the English soccer Premier League (8–10 August, 2018) (Killick & Griffiths, 2020); during the English soccer Premier League (January and February 2016) (Newall, 2017); during the English soccer Premier League (14–27 June 2018) (Houghton et al., 2019). Four studies selected television advertisements that were broadcast during 2014 to 2016 (Lopez-Gonzalez et al. 2018a, b, c, d). Purves et al. (2020) recorded sports (football, tennis, Formula 1, and rugby union) broadcasts that were shown between February and

November, 2018. One study collected text and email messages between 26 September and 2 October 2017 (Rawat et al., 2020). Finally, one study did not report the data collection period (Stadder & Naraine, 2020).

Publicly available advertisements were the most popular form of data identified. Among the 15 studies reviewed, data sources included: television advertisements sourced from *YouTube* (Lopez-Gonzalez et al. 2018a, b, c; Pitt et al., 2018); advertisements from both *YouTube* and those recorded during televised soccer matches (Lopez-Gonzalez et al. 2018d); *Twitter* (Houghton et al. 2019; Killick & Griffiths, 2020; Stadder & Naraine, 2020); betting shop window advertisements (Newall, 2015); broadcast television advertisements (Newall, 2015, 2017; Newall et al. 2019b), and two from televised sporting events (Purves et al. 2020; Thomas et al. 2012); data from stadia (Thomas et al. 2012), advertisements identified from Internet searches and gambling Web sites (Deans et al. 2016), and direct email and text messages (Rawat et al., 2020).

Frequency and Duration of Advertisements

Of the studies that examined *Twitter* postings, two examined the frequency of posts within a set time period. Houghton et al. (2019) examined 5,029 tweets posted by five sports betting operators within a 14-day period. The number of tweets ranged from 416 to 1472 between the different sports betting providers. Similarly, Killick and Griffiths (2020) examined 3375 tweets from ten betting providers, ranging from 33 tweets per day to 398 tweets per day. Stadder and Naraine (2020) collected the most recent tweets ($n = 16,466$) from six sports betting operators, ranging from 1496 tweets to 3171 per operator. The time that the tweets were posted was analysed and the authors reported that Australian sports bookmakers typically posted between 6:00 pm and 5:59 am. This is when Australian sports often take place, with a large number of tweets also taking place after the events have finished (Stadder & Naraine, 2020). The authors argued that operators focused their attention on when sports events and their users were most active.

Rawat et al. (2020) used ecological momentary assessment (EMA) to collect direct advertising data from a sample of 102 sports bettors and 110 horse race bettors. The authors reported that the participants received a total of 931 direct advertisement messages over a one-week period. In terms of the frequency of television betting advertisements, Newall (2017) reported that 63 advertisements were shown over 28 football matches (mean = 2.25 per match) across five different bookmakers. In a later study, Newall et al. (2019b) reported that 69 live-odds betting advertisements were shown over 32 matches during the 2018 soccer World Cup period (mean = 2.16 per match) by five bookmakers.

Two studies surveyed the volume and form of marketing strategies (Purves et al. 2020; Thomas et al., 2012). Thomas et al. (2012) reported that fans at a sporting event were subject to an average of 341 min of gambling advertising when concurrent promotions were calculated separately. Purves et al. (2020) examined the series and nature of gambling advertisements across different professional sporting events, including football, boxing, Formula 1, rugby union, and tennis ($n = 9$) which were broadcast in the UK. The extent and frequency of the marketing techniques analysed were found to vary between different sports. For football, branded merchandise was found to be the most popular form of advertising, due to the large amount of shirt sponsorship. Overall, only a small amount of marketing was noted during the advertising breaks and sponsorship lead-ins and over 70% of the gambling marketing was shown during the sports events.

Product Advertised

Twitter was found to be often used for direct advertising purposes, with operators using the platform to post their own gambling odds, and link to their own betting websites (Houghton et al., 2019). Sports betting operators often used *Twitter* to post customised bets (Houghton et al., 2019; Killick & Griffiths, 2020). Enhanced odds and in-play betting odds were also found to be regularly posted (Killick & Griffiths, 2020), in addition to free bet offers (Houghton et al., 2019). Apart from posting specific odds or promotions, gambling operators often posted sports-related content, such as news, match commentary, and quotes from sportsmen (Houghton et al., 2019; Killick & Griffiths, 2020).

Some of the studies looked in more detail at the bet types and odds that were promoted in these advertisements (Newall, 2015, 2017; Newall et al., 2019b). Advertisements often promoted complex bets (longer odds) rather than outcome bets. These advertisements often employed content highlighting 'complex' bet types (Newall, 2015). Newall (2017) reported that first or next goal scorer (in soccer) bets was the most commonly advertised in-play betting odds (39.7%). The authors also reported that new customer enhanced odds were often promoted, and these bets offered higher than usual returns for these bets as a potential reward for new customers. In a later study, Newall et al. (2019b) reported that gambling companies used tactics to make the bets appear more 'urgent' than necessary. Firstly, 25% of advertised bets were shown as having recently improved or 'boosted' odds. Secondly, 39.1% of the odds were advertised for bets that could be determined before the end of the game, possibly encouraging repeated in-play betting.

Text and email messages sent to bettors most often related to the Australian Football League, the National Rugby League, and horse racing (Rawat et al., 2020). The messages most typically contained specific promotions for betting (74.2% for sports bettors and 88.2% for horse bettors) followed by reminders or prompts to bet (16.3% for sports bettors, 6.5% for horse race bettors). These reminder messages did not contain specific inducements, but provided tips and guidance for betting, and information about upcoming sports events. Outcome bets (i.e. a bet that is made directly on the outcome of the game) was the most commonly promoted bet type in the direct messages. Bonus bets, also known as 'free bets', were the mostly commonly promoted form of inducements (offered 57.5% of the time for both sport and race bettors).

Lopez-Gonzalez et al. (2018b) reported that in-play betting was prevalent in over half of the television advertisements studied and mobile betting was the predominant type of betting method advertised. In addition, just over one-third of the advertisements (36.6%) promoted a free bet or refund promotion for new customers. Thomas et al. (2012) identified different marketing strategies for in-play sports betting, which included the following: (i) signs and billboards encouraging individuals to 'bet live' during Australian Football league games; (ii) betting odds announced by the broadcast team and; and (iii) odds displayed in stadiums on 'pull through banners' or 'pop-ups'. Integrated advertising, specifically dynamic advertising (advertising on revolving or electronic banners in the stadium) was the most frequently reported marketing strategy on televised sport (87%).

Responsible Gambling Information

Seven of the studies examined responsible gambling content within the advertisements (Houghton et al., 2019; Killick & Griffiths, 2020; Pitt et al., 2018; Purves et al., 2020;

Rawat et al., 2020; Stadder & Naraine, 2020; Thomas et al., 2012). One notable finding reflected in this theme was that sports betting advertising on *Twitter* did not typically contain responsible gambling information. For example, Houghton et al. (2019) reported that tweets classified as safer gambling comprised of 0.78% of the overall tweets. Similarly, Killick and Griffiths (2020) noted that less than 10% of tweets contained a responsible gambling message and the study by Stadder and Naraine (2020) found that only one of the six gambling operator *Twitter* accounts that were examined consistently included responsible gambling messages in their tweets. Conversely, advertisements sent via text message and email were found to include responsible gambling information in 97.6% of messages sent to sports bettors, and 95.5% of messages sent to horse race bettors (Rawat et al., 2020). Two studies that looked at embedded-sports betting advertising found that responsible gambling messages were present during television breaks (Purves et al., 2020) and live-odds announcements (Thomas et al., 2012) but signs of responsible gambling messages were not present on sponsorship shirts or very infrequently in stadium banner advertising (Purves et al., 2020; Thomas et al., 2012).

Themes or Narratives Within the Advertisement

A number of the content analyses highlighted the themes and latent messages that were used in the sports betting advertisements in order to portray sports betting as a social, risk-free, fun activity, which participating in allows bettors to demonstrate loyalty to their sports team. For example, Lopez-Gonzalez et al. (2018b) referred to the social representations theory (SRT) framework (Moscovici & Néve, 1973), which argues that social representations are a 'system of values, ideas and practices' (p.8). Gamblers were depicted as being socially surrounded by individuals prior to placing their bets. Similarly, Lopez-Gonzalez et al. (2018c) found that alcohol drinking more commonly occurred in sports advertisements which involved a higher number of characters shown within the advert, merging friendship bonding and alcohol drinking in the context of sports betting. Two further studies in this review (Lopez-Gonzalez et al., 2018a; Deans et al., 2016) identified friendship, or mateship, as salient themes promoted within the advertisements.

Deans et al. (2016) applied a coding framework in order to investigate the extent and implementation of symbolic appeal strategies within Australian sports betting advertisements ($n = 85$) and the way in which symbolic consumption processes are used to coordinate the marketing of products with culturally and socially valued meanings. The most apparent appeal strategy was one in which sports wagering was embedded with sports rituals and practice. This was where sports betting was linked to showing loyalty to (and support of) one's own team. Similarly, metaphors used by gambling operators, such as 'betting as love' (Lopez-Gonzalez et al., 2018d), were employed to exploit the emotional connection that bettors have with their sports team and athletes by deepening this relationship. By addressing pre-existing sport-fan bonds, bettors may perceive themselves others as disloyal based on their betting behaviour (Lopez-Gonzalez et al., 2018d).

Numerous studies identified humour strategies used by gambling operators (Deans et al., 2016; Houghton et al., 2019; Killick & Griffiths, 2020; Lopez-Gonzalez et al., 2018a, b; Pitt et al., 2018). For example, gambling operators on *Twitter* were found to regularly post messages containing elements of humour (Houghton et al., 2019; Killick & Griffiths, 2020). This social media strategy was employed in order to build brand awareness, and create a clear brand personality that prompts bettors to engage with the social media posts (Houghton et al., 2019). Comic elements also appeared in over half of the

television advertisements (Lopez-Gonzalez et al., 2018a; Pitt et al., 2018) and Lopez-Gonzalez (2018a) suggested that humour was one of the themes used to operators reduce the perceived risk of betting. Deans et al. (2016) reported that humour in sports betting advertisements served a different purpose. Males were found to be depicted in humorous scenes and women often featured in secondary roles within the advertisements, and were often objectified in swimwear or in fantasy situations. The authors found that humour was used to excuse specific messages, suggesting that specific depictions are 'acceptable' when accompanied by the use of humour and that sports industries can avoid accountability if their advertisements contain humour and comedy (Deans et al., 2016).

Other commonly identified themes included the use of celebrities or famous sports figures, fun, and the use of mobile technology. For example, Lopez-Gonzalez (2018a) identified that just under one-quarter of betting advertisements (23%) contained at least one celebrity character, which was usually a famous soccer player. Similarly, Pitt et al. (2018) found that celebrities and well-known sports teams often appeared in advertisements (30.8% and 25.3%, respectively). Deans et al. (2016) suggested that the celebrities were sometimes used to reinforce loyalty towards the sports teams and associated rituals. Betting on sports was also depicted as an activity that was fun, and made individuals happy (Deans et al., 2016; Lopez-Gonzalez et al., 2018a). Lopez-Gonzalez et al. (2018a) argued that references to betting as an activity that was fun and exciting, highlight a lack of negative consequences from losing a bet, and were often used as a risk-lowering strategy within the gambling advertisements.

A final important theme was the use of new features of mobile and betting technology. Pitt et al. (2018) found that the use of betting technology, such as mobile smartphones and tablets appeared in over 60% of the advertisements. Similarly, Lopez-Gonzalez (2018b) found that mobile betting technology appeared in 92.4% of the betting advertisements, presenting the accessibility and availability of this form of gambling. In addition, the authors also reported that in-play betting was shown in just under half of all the advertisements.

Discussion

The present systematic review contributes to the international literature by providing a thorough understanding of sports betting advertising content across various delivery methods. The findings demonstrated several key elements, which included information about the method of gambling advertising, the frequency of these advertisements, the specific product or features that promoted, responsible gambling information, and overlapping narratives identified within the advertisements. These findings are now discussed below in relation to these main themes.

Studies Examining Sports Betting Advertising Content

The present systematic review of sports betting advertising studies using a content analytic approach identified 15 studies that met the inclusion criteria. The results indicated that the research to date has (i) been conducted in the past ten years only; (ii) predominantly investigated television adverts, (iii) been carried out using Australian, Spanish, and British samples; (iv) identified almost a complete absence of responsible gambling messages on *Twitter*; and (v) noted several overlapping advertising narratives that have been identified in the previous gambling literature, including humour, friendship, and fun.

Attributes of Gambling Advertising Studies

In line with previous research, the results here indicate that sports betting advertisements are not solely distributed via traditional formats, such as commercial television breaks. Sports betting operators embed their advertising within sporting events, making it difficult to ignore (Purves et al., 2020; Thomas et al. 2012). Different marketing techniques that were found to embed sports betting within the game included *Twitter* hashtags that were used to link promotional tweets to sporting events (Killick & Griffiths, 2020); banners around the sports stadium, in-game commentary, television breaks, shirt sponsorship, and live-odds either announced or displayed on billboards (Thomas et al. 2012). Embedded advertisements during live sports events often appeared in high-profile locations, such as pitch-side or in the form of shirt sponsorship, and during times when spectators were likely to be watching, such as during half-time discussions (Purves et al., 2020; Thomas et al., 2012).

The content identified in the present review was found to vary across different types of advertisements. Due to the bidirectional nature of social media marketing, sports betting operators were found to employ different advertising content on *Twitter* compared to traditional advertising formats. Although *Twitter* was used as a platform to promote specific inducements and betting odds, it was also used by brands as a platform to engage with their customers (Houghton et al., 2019; Killick & Griffiths, 2020; Stadder & Naraine, 2020). Content was often posted with a reporting and informing nature (Stadder & Naraine, 2020) and also used strategies to prompt engagement from followers (Houghton et al., 2019). The high number of customer retweets indicated that gambling content was also easily shared with the customers own followers (Stadder & Naraine, 2020). It has been previously argued that when gambling content is posted alongside other sports news and events, it normalises gambling in a broader social context (Gainsbury et al., 2015) as well as offering further support to the integrative relationship between gambling and sports (Houghton et al., 2019). This form of marketing has resulted in concerns about exposure to these products by at-risk population groups (Houghton et al., 2019) and the possibility that it attracts individuals to gamble when they had not previously planned to (Thomas et al., 2015).

One notable area in the review findings was the use of marketing strategies that encouraged sports bettors to place in-play bets. In Australia, live-betting odds were found to be advertised via several methods in stadiums including on 'pull-through banners' or 'pop-ups' (Thomas et al. 2012) and website addresses were provided alongside the live odds, so that customers know where to place an instant bet. However, it is important to add that online in-play sports betting in Australia has since been made illegal. In the UK, in-play betting was shown in half of the adverts (Lopez-Gonzalez et al., 2018b), and often included recently 'improved' or 'flash odds', which made the bet appear more urgent (Newall et al. 2019a). In-play bets advertised were also those that could be determined before the game has finished, possibly encouraging repeated in-play betting (Newall et al. 2019b). On *Twitter*, in-play bets and enhanced odds were among the most frequently tweeted forms of promotion (Killick & Griffiths, 2020). It has been previously argued that in-play betting has the potential to be more harmful than other forms of gambling due to its inherent structural characteristics (Killick & Griffiths, 2019; Lopez-Gonzalez et al., 2019), and therefore, the content of this type of sports betting advertising is an area that requires further research.

Three studies in the present review noted that there were very few responsible gambling messages on *Twitter* (Houghton et al. 2019; Killick & Griffiths, 2020; Stadder & Naraine, 2020) or visible or audible responsible gambling messages found at stadiums (Purves et al. 2020; Thomas et al. 2012). However, it has been argued that the positive portrayal of gambling is not necessarily harmful, providing that those gambling receive adequate and accurate information on gambling-related risks (Planzer and Wardle, 2012) and that self-control is required (Parke et al., 2014). Portraying advertising as an activity with positive qualities (e.g. humour, excitement and fun) may contribute to society having a positive attitude towards gambling (Binde, 2014), whilst contributing to the ‘normalisation’ of gambling. Advertisements that appeal to children may also influence their sports betting attitudes and betting intentions (Pitt et al., 2018).

Of the studies included in the review, several notable themes were identified which complement previous research (i.e. friendship, humour, fun, and excitement). One theme that was present in several of the studies was the narrative which involved the representation of friendship (Deans et al., 2016; Lopez-Gonzalez et al., 2018a, b, c, d). Moreover, mate-ship and comradery were found to be factors that appeared to encourage individuals to bet on sports (Deans et al., 2016; Thomas et al., 2015). Previous research has identified that male friendship is a prominent aspect in sports betting narratives (e.g. Gordon et al., 2015; Lindsay et al., 2013; Sproston et al., 2015) and in other types of gambling advertising (McMullan & Miller, 2008). In the current study, these displays were directly targeted at young male sports fans (Deans et al., 2016), supporting the previous literature this is the typical demographic for sports betting marketing. Deans et al. (2016) suggested that the reason sports betting companies used this particular appeal strategy was that the act of friendship creates a setting that involves familiar feelings of security and comfort and as a consequence, behaviour is reinforced by imitation. Gordon and Chapman (2014) previously suggested that sports betting websites used marketing strategies to enhance the brand community experience, and that these techniques were used to promote a sense of togetherness among gamblers.

Humour was one of the most commonly identified types of narrative found in the studies reviewed. It has been argued that the of humour in gambling advertisements is implemented in order to get individuals attention (Korn et al., 2005), reduce feelings of risks involved with gambling (McMullan & Miller, 2008) and serve as a normalising strategy for sports betting behaviours (Monaghan et al., 2008; Sklar & Dereven-sky, 2011). When narratives of humour are combined with friendship in sports betting advertising, it creates an overarching narrative of security to promote risk-free betting (Lopez-Gonzalez et al., 2018a). In addition, some of the advertising content may engage children due to the informational aspects of the advertisements that demonstrate how to place sports bets via a process of observational learning (Pitt et al., 2018). It has also been argued that the sports betting industry uses similar strategies to that of the tobacco and alcohol industry by using numerous symbolic consumption strategies to influence the social acceptance of sports wagering, and that influence that cultural meaning that particular groups have about the association between gambling and sport (Deans et al., 2016).

Gaps and Recommendations for Future Content Analysis Studies

Based on the results of the present review, there are several gaps that have been identified and recommendations that can be made for future content analysis studies. Firstly, only

one study (Rawat et al., 2020) examined the content of direct advertising messages sent by sports betting operators. Previous research has indicated that direct messages strongly influence betting behaviour, and inducements sent via this form of marketing has led to bettors placing more and larger bets (Hing et al., 2019). It has also been argued that direct messages such as email and text message may increase the likelihood of impulsive online sports betting (Hing et al., 2018b; Russell et al., 2018). Russell et al. (2018), who reported that betting as a result of receiving text messages was likely to be unplanned and impulsive in nature, concluded that direct messages are an effective but also potentially harmful marketing tool. Sports betting marketing is increasingly targeted at an individual level (Newall et al., 2019a). Therefore, it is important that future research examines both the key features of these messages and their relationship with betting frequency and problem gambling.

Only four of the studies in the review (Deans et al., 2016; Lopez-Gonzalez et al. 2018a, b, d) used theory to inform the meaning contained within the sports betting advertisements. The use of theory provides a foundation in which the deeper meaning of the themes and narratives contained within the advertisements was able to be examined, and allowed for inferences to be made about the way in which sports bettors may be perceiving those messages. It is important to review latent narratives (e.g. being in control), to explore whether they may influence attitudes and conceptualisations for sports bettors (Lopez-Gonzalez et al., 2018d). Providing a deeper understanding of this content is vital to conceptualising how the content of sports betting advertising may be received by specific population groups, and as Lopez-Gonzalez et al. (2018d) argue, the analysis of the use of specific metaphors may help to understand how gambling on sports events has become such a widely accepted activity. Therefore, further content analysis studies may benefit by exploring different theories more comprehensively in future studies. This is important so that policymakers and regulators can react to particular metaphors and symbols that may encourage risky betting behaviour, as well as allow them to consider the appeal of such content to children.

Three studies were identified (Houghton et al., 2019; Killick & Griffiths, 2020; Stader & Naraine, 2020) that analysed the content of sports betting *Twitter* posts. All three studies noted a high volume of both direct and indirect marketing strategies used by sports betting operators. In addition, there was very little content associated with responsible gambling across the studies. This is likely due to the lack of restrictions faced by social media offers that traditional media formats are subject to. It also supports the findings of the limited use of responsible gambling information that has been identified across gambling products and social media platforms by Gainsbury et al. (2016). As reported by Gainsbury et al. (2015), gambling operators also use *Facebook* and *YouTube*, as well as *Google+* to a lesser extent. However, none of the studies have examined the content of advertising messages on additional forms of social media. Therefore, this is a further area for future content analysis research.

Several notable issues with the research design were identified. The approaches to data analysis in the included studies may have produced findings which are likely an under-estimate of the actual level of gambling advertising exposure. Chambers et al. (2017) argued that in the case of alcohol advertising during sporting events, brands are distinguishable when less than half of the name or brand logo present on the screen. Multiple studies were selected on the basis of purposive sampling (e.g. sports betting advertisements that individuals or organisations had uploaded to *YouTube*) which is probably an incomplete subset of such advertisements. It was also common within the sample selected for the present systematic review to employ this form of non-random sampling. Although most studies included criteria for which

advertisements would be included in their studies, the generalisability was limited, and any relationships identified from the data source could not be applied to content outside of a particular sporting event. Additionally, many of the studies used relatively small sample sizes but it is important to note that multiple studies adopted an exploratory qualitative approach which allows for more flexibility than content for statistical analysis. Half of the studies downloaded videos from *YouTube*, where the date-stamp on the video may not accurately represent that actual day on which the advertisements were first shown on television.

The studies included in the present review originated from just three countries (i.e. Australia, Spain, and the UK). Furthermore, the majority of the studies utilised television advertisements, with only three studies examining social media marketing (i.e. Houghton et al. 2019; Killick & Griffiths, 2020; Stadder & Naraine, 2020). Given the increase in gambling advertising on social media platforms, there is opportunity for further research to be carried out on the content analysis of these social media advertisements, which has also been previously been expressed by researchers (e.g. Newall et al., 2019a).

The present review demonstrated less than half of the studies included in the systematic review reported inter-coder reliability and none of the studies discussed the training of coders. It is possible that agreement error can result from poor training, coders' failure to understand their role, or chance error as a result of the coders resorting to guesswork. It is not possible to assess false agreements, so the use of coefficients is important to calculate chance agreement as an estimate of the agreement error (Lacy et al., 2015). At the very least, content analysis should include inter-coder reliability that is reported and tested within the studies (Lacy et al. 2015). Finally, future content analysis should implement longitudinal research designs in order to analyse different time points (e.g. seasonal changes, weekend vs. weekday matches, broadcasting channels, broadcasting methods, etc.) to understand trends in gambling advertising, and how the frequency and content may change over time.

Policy Implications

Only a small amount of the marketing was noted during the advertising breaks and sponsorship lead-ins compared to other marketing techniques employed during the sports games (Purves et al. 2020; Thomas et al. 2012) and on *Twitter*. These findings have important implications for the 2019 'whistle-to-whistle' ban, a voluntary ban imposed by the gambling industry on UK gambling advertising during live sports broadcasts (excluding horse racing). Although the voluntary ban has decreased broadcast gambling advertisements on UK television by 85% (Scott, 2020), there is still a heavy presence of gambling sponsorship in the UK and promotions distributed via social media. To date, no restrictions made to pitch-side or trackside advertising have been implemented. The size and diversity of sport viewership exacerbates the problem of sports betting sponsorship. Many of the sports events included in this review attract large audiences of all ages. Given that over half of the English Premier League's (soccer) team shirts for the 2019–2020 season displayed a gambling logo, the sponsorship extends to reach global markets. Therefore, restrictions on both sports betting advertising content on *Twitter* and during sporting events must be reviewed by regulators.

Limitations

The present systematic review is not without limitations. Firstly, only peer-reviewed journal papers were included in the search. It is possible that grey literature may contain further evidence relating to the topic under investigation. Only one reviewer was used for full-text screening, but stringent criteria were included to assist in reducing potential bias. Non-English language papers whose title or abstract had not been translated into English may also have been missed. Finally, there were some challenges when comparing the content of different advertising messages used across different media formats due to their unique type of communication. Despite these limitations, the present study is the first one to perform a comprehensive systematic review of sports betting advertising studies employing content analysis.

Conclusions

The volume and spending on gambling advertising and marketing appears to be increasing across different forms of media in the UK and elsewhere. The purpose of the present review was to explore the studies which have investigated the content of sports betting advertising. Content analysis studies are still relatively new and have been focused predominantly on investigating television advertisements. Although restrictions have been implemented for televised advertising during sporting events, the sponsorship of football shirts, and the pitch-side advertising hoardings mean that bookmakers continue to retain a large amount of exposure during live sporting events. Due to the popularity of televised sport, there is a need for regulation that addresses all forms of gambling marketing during sport, as well as content which is distributed by social media platforms.

Several overlapping narratives were identified including humour and friendship, which may play a role in the normalisation of sports betting, and reduce sports bettors' feelings of perceived risk. In regards to research design, although the findings represent a valuable contribution, an important criticism is that over half of the studies failed to calculate the inter-coder reliability. It has been argued that there is a high likelihood that the specific content in the advertisement is a more prominent driving factor of gambling behaviour than general awareness of gambling advertisements, and that some forms of advert with specific types of content may have a greater impact on gambling behaviour than others (Kristiansen & Severin-Nielsen, 2021). Therefore, it is important that future content analytic studies of sports betting meet the highest content analysis standards in order to enable more reliable, objective, valid, and replicable data. This information, when combined with studies that evaluate how sports bettors perceive these messages, can be used to develop suitable regulatory and policy strategies to prevent harm from sports betting advertisements.

Declarations

Ethical Approval N/A; this paper was a review paper.

Conflict of Interest The first author declares that she has no competing interests. The second author has received funding for a number of research projects in the area of gambling education for young people, social responsibility in gambling and gambling treatment from Gamble Aware (formerly the Responsibility in Gambling Trust), a charitable body which funds its research program based on donations from the gambling industry. The second author also undertakes consultancy for various gaming companies in the area of social responsibility in gambling.

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