Full title:

Frequency, duration and medium of advertisements for gambling and other risky products in commercial and public service broadcasts of English Premier League football

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Abstract

Background:

There is concern in the media and among public health professionals about the proliferation of advertisements for gambling and other risky products during sporting broadcasts and its potential impact on vulnerable groups including children and young people.

Methods:

An established coding framework was used to identify and categorize all instances of risky product marketing in six broadcasts of English Premier League football: three episodes of *Match of the Day*, a highlights program on the BBC (a public service broadcaster), and three full matches on Sky Television (a commercial subscription channel).

Results:

Gambling advertising occurred more frequently than either alcohol or hyperpalatable food advertising in both sporting highlights broadcasts on non-commercial UK television and full sports broadcasts on commercial stations. Overall, there was more advertising of risky products during highlights shows on the BBC than there was during live matches on Sky.

Conclusions:

Concern about the advertising of gambling, alcohol and hyperpalatable food has focused on commercial stations which include advertisement breaks in their broadcasts. However, this research suggests that public broadcasts of football highlights, which do not include advertisement breaks, are also saturated with gambling and other risky product advertising. Further research is needed to investigate how advertising impacts different groups, particularly children and young people.

Introduction

Between 2010 and 2015 one of the authors of this paper (Cassidy) conducted an ethnographic study of gambling in London and the south east of England. One of the things that people were most keen to discuss was advertising, particularly during live sporting events. Jim, for example, a pensioner living in Kent, felt ‘bombarded’ by adverts¹:

Well you can’t get away from it these days can you, on the telly. If you want to watch sport anyway. You can get away with watching drama like, but live sport they’ve got you cornered. You’re bombarded with it. Nothing you can do to get away with it. ‘Get your bets on naaahhh!’ That’s what Ray Winstone says isn’t it. Like it’s an order! It’s very what you call it, overpowering almost.

The argument that advertising has contributed to what has been referred to as a ‘normalization’ of gambling, particularly among young people, has been made in Australia (Deans et al 2017, Pitt et al 2016) and the US (Sklar and Derevensky 2010), as well as in the UK and Spain (Lopez-Gonzalez, Guerrero-Solé and Griffiths 2017). The idea was also apparent among parents in the UK whose children watched sport, and football in particular:

Children see those adverts during a game. They see the logos on the shirts and they think that gambling and sport go together because that’s what they see every weekend. (Frank, 40 year old parent of two boys aged 10 and 15)

A review of research into gambling advertising in 2014 concluded that:

(A)lthough research on the impact of gambling advertising is methodologically challenging, it is possible to conduct studies that produce knowledge valuable for policy making, regulation and the responsible marketing of gambling. While current knowledge at best allows for evidence inspired policy and responsible marketing, there are good prospects of gaining more knowledge through future studies that would allow policy and responsible marketing to become more evidence-based. (Binde 2014: 5)

The report identified ‘Surveying the volume and forms of advertising’ and ‘Content analysis’ as high priority areas for research. This exploratory study is an attempt to respond to these calls for evidence by assessing the volume and content of gambling and other risky product advertising in selected broadcasts of English Premier League (EPL) football.

Background

Television and radio advertising for casinos, betting shops and online gambling sites was prohibited in the UK until the Gambling Act 2005 came into force in 2007. Between 2007 and 2013 spending on gambling advertising increased by 600% (Sweney 2013). This proliferation caused public concern which was reflected in the media and in parliamentary scrutiny which has focused especially closely on the exposure of young people to gambling advertising during live sporting events.

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¹ Young men in Australia have also reported that they felt ‘bombarded’ by advertising (Thomas et al 2012b).

In 2014, for example, Gary Lineker, retired footballer and presenter of *Match of the Day*, an EPL highlights program broadcast by the BBC, told an interviewer:

The other thing that worries me is all the betting advertising and sponsorship in sport. All you ever see is commercials for gambling and apps, it is really dangerous, and I think we need to do something about both of them, alcohol and gambling. Gambling is just too easy to do now, and as a parent I worry about it, all those ads bombarding you with in-play betting. (quoted by Campbell 2014)

Karen Bradley, the Culture Minister, has also expressed concern about the exposure of children to gambling advertising. In 2016 she announced a review of gambling which would include advertising and told the House of Commons that:

(M)y children can recite just about every gambling advert there is because they sit and watch Sky – I won't say the name, a news channel that is 24 hour sports. They hear those adverts. I am interested as a parent but I am also interested as a Secretary of State in understanding what the impact is on young people of that advertising. I want the evidence so we can make a decision as to what's the appropriate way that we should allow this. (McCann 2016)

In April 2017 professional footballer Joey Barton was banned from football for 18 months after breaking the rules on betting. He responded by issuing a statement saying that, 'If the FA (Football Association) is serious about tackling gambling I would urge it to reconsider its own dependence on the gambling industry. I say that knowing that every time I pull on my team's shirt, I am advertising a betting company.' (quoted in Telegraph Sport 2017).² In June 2017 the FA pulled out of all of sponsorship with gambling companies, including ending their £4 million deal with Ladbrokes which had lasted less than a year.

Although the FA is the governing body of association football in the UK it does not control the operations of the EPL, which is reported to be 'the most watched sports league in the world' (Ebner 2013). In 2014 EPL matches had an average global audience of 12.3 million, more than La Liga, the Bundesliga, and Serie A put together (Pilger 2014). The EPL is also a favoured medium for gamblers all over the world, including in the vast, lucrative Asian markets, because it is regarded as clean and competitive, a league in which the bottom team can legitimately beat the top (Hawkins 2013). Since the invention of betting in play, the EPL has also provided thousands of in-match micro markets (on, for example, the number of throw-ins, the timing of the next goal or yellow card, and so on), producing a diverse, trusted betting medium that bookmakers are eager to exploit (Noble 2017).

Gambling advertising in the UK is overseen by the Advertising Standards Authority (ASA) and the Industry Group for Responsible Gambling (IGRG) which is comprised of the Association of British Bookmakers; British Amusement Catering Trade Association; the Bingo Association; National Casino Forum; and the Remote Gambling Association. Neither of these organisations has legal powers of enforcement. The Gambling Industry Code for Socially Responsible Advertising was created by the IGRG in 2007 and updated in 2015. The code

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² In the 2016/17 season ten out of twenty teams in the EPL had matchday kit sponsored by betting companies, including Burnley, Barton's team.

includes a 9pm television watershed for all gambling products *except* for bingo and for sports betting around televised sports events. The latter exception is controversial and currently under consideration as part of the Department for Digital, Culture, Media and Sport (DCMS) review (Howard 2016).

The purpose of this paper is to use methods developed in Australia (Lindsay et al 2013, Thomas et al 2012) to measure the number of instances of advertising of risky products: gambling, alcohol and hyperpalatable food (defined as food which contains high amounts of added salt/sodium, sugar, and/or saturated fat) that occur in six broadcasts of EPL football. This approach allows for the comparison of volumes of advertising for different kinds of risky products. In addition, we have selected a sample which enables us to compare the frequency of instances of risky products advertising occurring in commercial and non-commercial broadcasts.

Methods

Three episodes of the EPL highlights show *Match of the Day*, broadcast on BBC1, a non-commercial television channel, and three live EPL matches broadcast on Sky Sports 1, a commercial subscription television channel, were digitally recorded to High Definition (1080p) files. Following a method devised by Thomas et al in 2012 and updated by Lindsay et al in 2013, each program was viewed by a researcher who independently documented the frequency, duration, and content of all ‘instances’ of gambling, alcohol and hyperpalatable food marketing. ‘Instances’ were defined as ‘an appearance of a commercial logo, written or spoken narrative which was either visible or audible for at least two seconds.’ (Lindsay et al 2013: 3). The time period of two seconds was chosen based on a review of tobacco marketing literature (Martin 1990) ‘which indicated that repeated, short-term exposure (sometimes referred to as mere exposure) to marketing has a significant impact on an individual’s positive response to a product or brand’ (Lindsay et al 2013: 3).

In keeping with Lindsay et al’s approach, marketing for the same brand that occurred simultaneously across more than one medium (for example, on shirts and also on perimeter billboards) counted as separate instances as long as each was visible or audible for at least two seconds; this would include, for example, a brand advertising simultaneously on both static and dynamic billboards. Marketing for different brands appearing on screen at the same time were counted as individual instances for that brand for the duration it was on screen: in this way it is possible for one minute of broadcast footage to contain multiple minutes of advertising.

All instances were categorised according to Thomas et al’s (2012) five groups of:

- 1) fixed advertising signage (static perimeter advertising)
- 2) dynamic advertising (digital/scrolling advertising on billboards and other display media)
- 3) commercial break advertising (so-called ‘produced’ commercials aired during specific commercial breaks)
- 4) integrated advertising (encompassing live announcements, ‘pop-up’ screen displays and other commentary during play), and
- 5) team sponsorship (including kit sponsorship).

Lindsay et al's later categorisation (2013) disaggregates 'integrated advertising', preferring two separate categories of 'Match Commentary' and 'on screen "Pop Ups"', and adding an 'Off Field' category to encompass advertising away from the perimeter of the field, for example on advertising hoardings away from the pitch for post-match interviews. They also kept the category of 'Show Sponsorship' distinct from other televised commercial adverts, which fits with UK practice, whereby Ofcom (the Office of Communications, the government-approved regulatory and competition authority for the broadcasting, telecommunications and postal industries of the UK) supervise show sponsorship but devolve other commercial advertising matters to the ASA. To maximise comparability this paper uses both coding systems. All results were entered into Microsoft Excel.

For reliability, 10% of the data was sampled and blind-coded by a second researcher and their responses compared. Inter-coder reliability was 72.77% overall: notable discrepancies occurred between researchers' opinions on whether shirt sponsorship was legible and/or on screen for a sufficient duration, and on whether logos were in focus sufficiently to be counted. All differences were discussed after blind coding and reconciled in full.

Total combined samples	Blinded agreement	Total possible	% reliability	Comments
1. Fixed Advertising Signage	17	36	47.22%	Multi-tiered static adverts, partially obscured hoardings and cross-pitch focus issues lead to most disagreement in this category
2. Dynamic Advertising	74	80	92.50%	High level of inter-coder agreement over highly visible digital advertising boards
3. Produced Commercial Breaks	2	2	100%	Total agreement over small sample.
4. Integrated Advertising	0	1	0%	Small sample: disagreement between coders over visibility of branding on-screen
5. Team Sponsorship	46	72	63.89%	Coders had different opinions on whether or not brand was visible, body shape was towards camera, and/or on screen for 2 seconds or longer.
Totals	139	191	72.77%	

Results

Three episodes of BBC football highlights program *Match of the Day* totalling 270 minutes and three full match broadcasts aired on *Sky Sports 1* totalling 480 minutes were coded. The three episodes of *Match of the Day* were aired towards the end of the 2016/17 EPL season, on BBC1 on April 5th, 8th and 15th. The episodes followed a similar format, consisting of

highlights of matches followed by discussion and review of the match. One episode (5th April) was marginally longer in duration at 100 minutes versus the 85 minutes of the latter episodes. As a domestic BBC broadcast funded publically via the licence fee as well as global licensing operations, the show does not include commercial breaks or commercial program sponsorship.

Match of the Day is a popular show which attracts more than 4 million viewers on Saturday night (when it is shown after the watershed) and between 2 and 3 million on Sunday morning when it is repeated (Broadcasters' Audience Research Board 2017, McRae 2013).³ The repeat normally goes out at around 7am on Sunday morning – a time when children's programming features heavily in the schedules.

All three episodes of *Match of the Day* were also available on BBC iPlayer for up to 30 days. BBC iPlayer is a 'catch-up' service, offering the same shows, without commercial breaks or advertising. iPlayer provides an optional parental guidance lock which may be used to limit access to programs with mature content. According to the BBC website: 'If a programme has been flagged with parental guidance, it will feature a clear label and a G symbol. If you're on your computer, look out for a red bar towards the bottom left.'⁴ *Match of the Day* is not flagged. The most popular episode in April (April 1st) had 593,000 requests for post-live viewing.⁵

Three football matches broadcast on the commercial channel Sky Sports 1 on May 14th were coded. The first match was Crystal Palace FC vs Hull City. The latter two matches (West Ham United vs Liverpool FC and Tottenham Hotspur vs Manchester United) had 1,147,700 and 1,601,500 live viewers respectively (according to freely available Broadcasters' Audience Research Board data).

Sky Sports matches are almost always broadcast before the watershed: the three matches that we coded were shown between 11:00 and 19:00 on a Sunday. The most common kick-off time for football matches in the UK is 15:00 on Saturday afternoon, and as part of an agreement to maintain match-day attendance, matches that kick-off between 14:00 and 16:00 on Saturday are not broadcast live on television. Matches are normally broadcast on Sky from around 11:00/12:00 on Saturday and Sunday, running 11:00-14:00 on Saturday then again 16:00-19:00, and on Sunday right through from 11:00-19:00. Weekday matches kick off at 19:45, finishing at around 21:30. The duration of each broadcast varied due to pre-match and/or post-match discussion and analyses.

All three matches were available for Sky customers to record to watch post-live, and were also available online via the on-demand catch up Sky Go website.

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³ *Match of the Day* is normally aired at 10.30pm on Saturday night. A repeat is shown on Sunday morning, before 11am. This is because live matches start on Sunday at 11am and the BBC agreed with the FA not to let *Match of the Day* run into live match hours on the Sunday.

⁴ https://www.bbc.co.uk/iplayer/help/pg_PIN

⁵ For figures see: <http://downloads.bbc.co.uk/mediacentre/iplayer/iplayer-performance-apr17.pdf> (slide 9)

Table 1 – episodes analysed in study

Date	Time of original air date	Repeated?	Duration	Available on BBC iPlayer/Sky Go?
Wednesday 5 th April 2017 to Thursday 6 th April 2017	22:40-00:20	No (aired separately on BBC Wales, 23:15-00:55)	100 minutes	BBC iPlayer
Saturday 8 th April 2017	22:30-23:55	Yes (Sunday 9 th April, 07:30-08:55)	85 minutes	BBC iPlayer
Saturday 15 th April 2017	22:30-23:55	Yes (Sunday 16 th April, 07:30-08:55)	85 minutes	BBC iPlayer
Sunday 14 th May	11:00-14:00	Highlights (Monday 15 th May, 18:00-18:30)	180 minutes	Sky Go
Sunday 14 th May	14:00-16:15	Yes (Monday 15 th May, 11:00-18:00)	135 minutes	Sky Go
Sunday 14 th May	16:15-19:00	Yes (Monday 15 th May, 11:00-18:00)	165 minutes	Sky Go

How much advertising appeared during the broadcasts?

During *Match of the Day*, we identified 764 instances of gambling advertising, 176 instances of alcohol advertising and 39 instances of hyperpalatable foods advertising. The April 15th episode had the highest total number of instances despite being one of the shorter 85 minute episodes, and the highest number of visible advertisements for alcohol overall (n=101). The average duration of a visible advert across all episodes was 7.57 seconds (standard deviation of 6 seconds), with a variation in length from 2 seconds (the minimum accepted observation) to 44 seconds. Of the 974 total recorded, 255 (26.05%) were 10 seconds or longer, and 252 (25.74%) were 2 to 3 seconds in duration.

Tables 2 and 3 – visible durations of Gambling, Alcohol and Hyperpalatable food

BBC Match of the Day

Episode original air date	Gambling			Alcohol			Hyperpalatable Food			Total		
	n	mean	sd	n	mean	sd	n	mean	sd	n	mean	sd
5 th April (100')	279	7.76"	5"	53	7.91"	6"	26	7.46"	8"	358	7.76"	6"
8 th April (85')	218	7.23"	6"	22	9.45"	7"	6	5.33"	3"	246	7.38"	6"
15 th April (85')	267	7.51"	6"	101	7.52"	5"	7	6.86"	6"	375	7.50"	6"
Total	764	7.52"	6"	176	7.88"	5"	39	7.03"	7"	979	7.57"	6"

During the Sky Sports broadcast, we identified 524 instances of gambling advertising, 138 instances of alcohol advertising and 6 instances of hyperpalatable food advertising. The average duration of a visible advert across all matches was 11.89 seconds (standard deviation of 14 seconds), with a variation in length from 2 seconds to 149 seconds. Of the 668 total referenced, 267 were 10 seconds or longer (39.97%), and 132 (19.76%) were 2 to 3 seconds in duration.

Sky Sports 1

Episode original air date	Gambling			Alcohol			Hyperpalatable Food			Total		
	n	mean	sd	n	mean	sd	n	mean	sd	n	mean	sd
14 th May – Crystal Palace v Hull City (180')	279	10.52"	13"	86	14.71"	22"	2	12"	11"	367	11.51"	16"
14 th May – West Ham United v Liverpool FC (135')	176	11.85"	13"	21	20.05"	18"	3	17.33"	11"	200	12.79"	14"
14 th May – Tottenham Hotspur v Manchester Utd (165')	69	11.32"	9"	31	12.03"	9"	1	9"	n/a	101	11.52"	9"
Total	524	11.07"	13"	138	14.92"	19"	6	14.17"	9"	668	11.89"	14"

Tables 4 and 5 – total minutes of advertising, percentage of advertising time

BBC

Episode – first air date	Gambling	Alcohol	Hyperpalatable Foods	Total
5 th April 2017 (100' episode) (n=358)	0:36:05 (77.93%)	0:06:59 (14.80%)	0:03:14 (7.26%)	0:46:18 (100%)
8 th April 2017 (n=246)	0:26:16 (88.62%)	0:03:28 (8.94%)	0:00:32 (2.44%)	0:30:16 (100%)
15 th April 2017 (n=375)	0:33:25 (71.2%)	0:12:40 (26.93%)	0:00:48 (1.87%)	0:46:53 (100%)
Total	1:35:46 (78.04%)	0:23:07 (17.98%)	0:04:34 (3.98%)	2:03:27 (100%)

Sky

Episode – first air date	Gambling	Alcohol	Hyperpalatable Foods	Total
14 th May 2017 – C. Palace v Hull (180') (n=367)	0:48:54 (76.02%)	0:21:05 (23.43%)	0:00:24 (0.54%)	1:10:23 (100%)
14 th May 2017 – West Ham v Liverpool (135') (n=200)	0:34:45 (88.00%)	0:07:01 (10.50%)	0:00:52 (1.50%)	0:42:38 (100%)
14 th May 2017 – Tottenham v Man. Utd. (165') (n=101)	0:13:01 (68.32%)	0:06:13 (30.69%)	0:00:09 (0.99%)	0:19:23 (100%)
Total	1:36:40 (78.44%)	0:34:19 (20.66%)	0:01:25 (0.90%)	2:12:24 (100%)

What sorts of advertising appeared during the broadcasts?

The greatest proportion of advertising instances came from perimeter advertising (66.19% for *Match of the Day*, 71.86% for Sky Sports) visible during live broadcast, replay and/or analysis of the matches. Off field advertising, i.e. advertising away from the field of play such as post-match interviews, comprised 20.43% of all advertising in *Match of the Day* but only 8.38% in the live Sky broadcast. The majority of the remainder (11.64% for *Match of the Day*, 13.02% on Sky Sports) came from matchday shirt sponsors visible on the players' kit; a very small proportion (1.53% and 0.20% respectively for *Match of the Day*; 0.45% and 0.3% for Sky Sports) came from 'pop ups' on screen (predominantly showing squad line-up with visible kit adverts) or audio commentary (referencing grounds with gambling sponsors or using a gambling analogy). 5.84% of the Sky Sports broadcast was commercial advertising or show sponsorship, neither of which are permitted on BBC television.

Figures 1 and 2 – frequency distribution of advertising by location, all shows

BBC

Sky

What were the most common forms of advertising during the broadcasts?

Billboard and on-field advertising for gambling was the largest proportion overall, totalling 50.87% of all adverts seen on *Match of the Day* and 55.54% on Sky Sports.

Tables 6 and 7 – adverts by type, by episode, percentage of all adverts in that episode

BBC

Episode first air date	Gambling: commentary	Gambling: billboard / on field	Gambling: off field	Gambling: "pop up"	Gambling: shirt sponsor	Alcohol: billboard / on field	Alcohol : off field	Alcohol: shirt sponsor	Hyper palatable Food: billboard / on field	Hyper palatable Food: off field	Hyper palatable Food: shirt sponsor/on field	Total
5 th April 2017 (100')	0 (0%)	184 (51.40%)	45 (12.57%)	4 (1.12%)	46 (12.85%)	32 (8.94%)	15 (4.19%)	6 (1.68%)	20 (5.59%)	6 (1.68%)	0 (0%)	358 (100%)
8 th April 2017	1 (0.41%)	140 (56.91%)	48 (19.51%)	5 (2.03%)	24 (9.76%)	17 (6.91%)	5 (2.03%)	0 (0%)	3 (1.22%)	1 (0.41%)	2 (0.81%)	246 (100%)
15 th April 2017	1 (0.27%)	174 (46.40%)	53 (14.13%)	6 (1.60%)	33 (8.80%)	73 (19.47%)	25 (6.67%)	3 (0.80%)	5 (1.33%)	2 (0.53%)	0 (0%)	375 (100%)
Total	2 (0.20%)	498 (50.87%)	146 (14.91%)	15 (1.53%)	103 (10.52%)	122 (12.46%)	45 (4.60%)	9 (0.92%)	28 (2.86%)	9 (0.92%)	2 (0.20%)	979 (100%)

Sky

Episode first air date	Gambling: commentary	Gambling: billboard / on field	Gambling: off field	Gambling: produced commercial	Gambling: "pop up"	Gambling: shirt sponsor	Gambling: show sponsor	Alcohol: commentary	Alcohol: billboard / on field	Alcohol: off field	Alcohol: produced commercial	Alcohol: shirt sponsor	Hyper palatable Food: off field	Hyper palatable Food: Produced Commercial	Total
14 th May 2017: Palace v Hull (180')	0 (0%)	178 (48.50%)	39 (10.63%)	8 (2.18%)	2 (0.54%)	52 (14.17%)	0 (0%)	0 (0%)	70 (19.07%)	7 (1.91%)	5 (1.36%)	4 (1.09%)	0 (0%)	2 (0.54%)	367 (100%)
14 th May 2017: West Ham v Liverpool (135')	0 (0%)	134 (67.00%)	4 (2.00%)	6 (3.00%)	1 (0.50%)	31 (15.50%)	0 (0%)	0 (0%)	14 (7.00%)	4 (2.00%)	3 (1.50%)	0 (0%)	2 (1.00%)	1 (0.50%)	200 (100%)
14 th May 2017: Tottenham v Man U. (165')	1 (0.99%)	59 (58.42%)	0 (0%)	8 (7.92%)	0 (0%)	0 (0%)	1 (0.99%)	1 (0.99%)	25 (24.75%)	0 (0%)	5 (4.95%)	0 (0%)	0 (0%)	1 (0.99%)	101 (100%)
Total	1 (0.15%)	371 (55.54%)	43 (6.44%)	22 (3.29%)	3 (0.45%)	83 (12.43%)	1 (0.15%)	1 (0.15%)	109 (16.32%)	11 (1.65%)	13 (1.95%)	4 (0.60%)	2 (0.30%)	4 (0.60%)	668 (100%)

How many different brands were advertised? Which brands were advertised most frequently?

During the *Match of the Day* broadcast, there were 41 unique brand mentions, 43 if two gambling companies promoting their online brand separately are counted as unique mentions. The Sky Sports broadcast included 33 unique brand mentions. A total of 55 unique brands were counted across both channels, 57 including the above caveat.

Tables 8 and 9 – Top 10 most frequently visible brands by category and broadcast channel.

BBC

Category	Brand	Duration	% of total advertising in category (total all risky product advertising)
Gambling	Bet365	21:25	22.37% (17.35%)
Gambling	138.com	10:22	10.83% (8.40%)
Alcohol	Carlsberg	10:18	44.55% (8.34%)
Gambling	Dafabet	10:00	10.44% (8.10%)
Gambling	SportPesa	08:37	9.00% (6.98%)
Gambling	Mansion	08:31	8.89% (6.90%)
Gambling	BetEast	05:41	5.94% (4.60%)
Gambling	Bet Victor	05:18	5.54% (4.29%)
Gambling	Betway	05:16	5.50% (4.27%)
Gambling	William Hill	04:57	5.17% (4.01%)
<i>Total</i>		1:30:25	(73.24%)

Sky

Category	Brand	Duration	% of total advertising in category (total all risky product advertising)
Gambling	Betway	31:43	32.81% (23.96%)
Gambling	Mansion	24:47	25.64% (18.72%)
Alcohol	Carlsberg	14:21	41.81% (10.84%)
Alcohol	New Amsterdam Vodka	09:08	26.61% (6.90%)
Gambling	Bet365	07:24	7.66% (5.59%)
Gambling	William Hill	06:50	7.07% (5.16%)
Gambling	Bet Victor	06:15	6.47% (4.72%)
Alcohol	Heineken	05:33	16.17% (4.19%)
Gambling	138.com	05:15	5.43% (3.97%)
Gambling	Fun88	03:46	3.90% (2.85%)
<i>Total</i>		1:55:02	(86.90%)

In *Match of the Day* visible gambling adverts were predominantly for bookmakers with online services and online-only gambling providers (98.82%) plus one local lottery advert

and nine adverts for fantasy sport betting providers; on Sky Sports adverts were entirely for the first category: bookmakers with online services and online-only gambling providers.

In all *Match of the Day* episodes, the majority (94.89%) of alcohol adverts were for beer, with some wine and spirit brands also represented. Sky Sports had a lower percentage for beer (80.43%), with spirit and cider brands comprising virtually all of the remaining proportion; one generic alcohol reference was also made in commentary.

On *Match of the Day*, visible hyperpalatable food adverts were predominantly for sugar added beverages (58.87%), the remainder being sugar added foods (15.39%) and foods with a high salt and/or fat content (25.64%). On Sky Sports, 50% of references were to sugar added beverages, 33% to foods with a high salt and/or fat content, and 17% (rounded up) to a company who deliver such products to consumers.

All of the 29 bookmakers advertised offered an online service with varied target markets including Europe, East Asia and Africa, reflecting the global audience of the EPL and the relative sizes of gambling markets in these regions. Across both kinds of broadcast, online gambling constituted the majority of brands advertised (29 out of 30 gambling brands and 57 unique brands overall).

Did the broadcasts contain any messaging encouraging the responsible consumption of risky products?

During the *Match of the Day* episodes, there were no visible or audible references advocating the responsible consumption of gambling, alcohol or hyperpalatable foods.

On Sky, of the total of 22 produced commercials advertising gambling, four from two unique brands had an audible message such as 'I gamble responsibly' (Bet365, n=3) or the Senet Group⁶ slogan 'when the fun stops, stop' (Coral, n=1) (0.76% of all gambling instances). Of the remaining 18 gambling commercials, 14 had the Senet Group slogan in text form (no audible message, 2.67% of all gambling instances), and another two had small-type text-based messages including a weblink and 'Bet The Responsible Way' (0.38% of all gambling instances). Two had small-type text-based messages citing the GambleAware⁷ weblink (a requirement of the IGRG code) and no other information (0.38% of all gambling instances). No other gambling advertising instances during the Sky Sports broadcast (501 of 523 instances, 95.79%) included any form of responsibility messaging.

One beer brand (Heineken) advertising on dynamic billboards during one of the three matches on Sky advised consumers to 'enjoy responsibly', visible 8 times during the broadcast (5.80% of all alcohol instances). Produced commercials promoting alcohol typically referred watchers by small-type text to a website (n=9, 6.52% of all alcohol

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⁶ A body consisting of several gambling sector operators, established with the intention 'to promote responsible gambling standards and ensure that the marketing of gambling is socially responsible'. <http://senetgroup.org.uk/>

⁷ A charity, funded by voluntary donations from the gambling sector, who in turn fund 'education, prevention and treatment services and commission research to broaden public understanding of gambling-related harm'. <https://www.begambleaware.org/about-begambleaware/>

instances); some added 'drink responsibly', 'enjoy responsibly' or similar (n=3, 2.17% of all alcohol instances). One displayed in small-type text 'over 18s only' along with the website link text, although this advert opted for a background matching the type colour, rendering it poorly legible (0.73% of all alcohol instances). On aggregate, 15.22% of all alcohol advert instances included some form of responsibility message although on the whole this was limited to very small text for very short period. There were zero instances of audible responsible messaging during a total of 13 produced commercials for alcohol.

There was no advice to moderate the consumption of hyperpalatable food in either kind of broadcast: no equivalents to 'be treatwise' (a Corporate Social Responsibility (CSR) initiative supported by Australian confectionery providers) or to choose a 'thoughtful portion' (a CSR prompt supported by Nestlé USA).

Across all of the three categories of risky products (gambling, alcohol and hyperpalatable foods), and including produced commercials where very little time and small text is employed, 43 of 668 instances (6.44%) had any form of responsible messaging, and only four of 37 produced commercials (10.81%) included audible responsible messages in the form of advocating 'gambling responsibly' or the Senet slogan 'when the fun stops, stop'. The remaining 93.55% of instances included no responsible messages of any kind.

What is already known about this topic in the UK and internationally?

Frequency analysis of alcohol advertising in televised EPL football broadcast on a variety of commercial channels recorded 'a mean of 111 visual references and 2 verbal references to alcohol per hour of broadcast' and concluded that, '(r)estriction of all alcohol sports sponsorship, as seen for tobacco, may be justified.' (Graham and Adams 2013: 243).

Our study recorded a mean of 17 instances of alcohol advertising per hour of broadcast on commercial television and 39 per hour on non-commercial highlights shows. Instances of gambling were much higher: 66 instances per hour in commercial broadcasts and 170 in non-commercial broadcasts. Instances of hyperpalatable food were lower at one instance per hour of commercial broadcast and nine per hour of non-commercial broadcast.

Our figures are likely to understate the amounts of advertising because the methodology used by Graham and Adams (2013) counts multiple instances of the same brand on the same medium at the same time as multiple 'references', whereas we follow an approach developed in Australia by counting multiple sightings of the same brand on the same medium as a single 'instance'. We estimate that if we had employed the counting method used by Graham and Adams, our figures for perimeter advertising would be increased by a factor of approximately five. In order to arrive at a roughly comparable figure we used a random number generator to select ten screenshots from each episode of *Match of the Day* and the Sky Sports matches. Where billboards were visible, the number of advertisements billboards present in-frame were logged and then averaged: perimeter billboards averaged 5.15 visible adverts.

A rough calculation on this basis would produce 72 references of alcohol advertising per hour of commercial broadcast (closer to the figure of 111 identified by Graham and Adams)

and 148 during non-commercial broadcasts. Comparable estimations for gambling would be 251 references per hour in commercial broadcasts and 612 in non-commercial broadcasts. Advertising for hyperpalatable food did not appear on billboards during the commercial broadcast and so the number stays at one reference per hour, increasing to 34 references per hour during the non-commercial highlights broadcasts. Our research shows that the number of instances of gambling advertising is much higher than that of alcohol during both commercial and non-commercial broadcasts of EPL.

International research has also explored the proportions of advertising of gambling, alcohol and hyperpalatable foods during sporting events, including highlights shows. In broadcasts of Australian rugby league, for example, alcohol made up the vast majority of risky product advertising (91.9%) while gambling accounted for 7.47% (Lindsay et al 2013). In the broadcasts that we coded, these proportions were roughly reversed – gambling accounted for 78% of risky product advertising with alcohol accounting for around 20%.

Milner et al coded a total of five Australian Rugby League and Australian Football League matches and found that gambling promotions constituted 2.5% of observed broadcast time (2013). They also coded a highlights show which included 17 gambling ‘messages’ (the term used by Milner et al to refer to what we describe as ‘instances’) which occurred during 13 minutes of a 200 minute broadcast. In contrast, *Match of the Day* had gambling instances present during 30% of observed broadcast time, including 764 gambling instances visible during 81 minutes across 270 minutes of total broadcast. The Sky Sports matches had gambling advert instances present in 22% of observed broadcast time (104 minutes across the 480 minute broadcast).

The comparability of ‘messages’ and instances is again in question as Milner et al did not specify the minimum duration that constitutes a ‘message’, but gambling advertisements are reflected at a higher rate at approximately the same factor observed following the paper and methodology used by Lindsay et al (2013).

The low number of messages advocating responsible consumption during the commercial broadcast, the lack of any form of responsible messaging in the non-commercial highlights show and the absence of any counter advertising (which describes the potentially negative consequences of consumption of risky products) in either form of broadcast is especially problematic in light of the findings of Thomas et al (2012b: 115). When interviewing gamblers about their attitudes to social marketing campaigns Thomas et al noted that ‘moderate risk and problem gamblers commented that messages about risk and help seeking were completely “drowned out” by the saturation of positive messages promoting gambling’ (Thomas et al 2012a: 130). Binde’s review of gambling advertising did not comment on counter advertising (2014: 6). However, according to Planzer’s assessment of gambling, law and addiction in Europe, ‘both advertising and counter-advertising seem to influence adolescents’ (2014: 321).

What this study adds

This study is the first of its kind to investigate advertising references to gambling, alcohol and hyperpalatable foods during broadcasts of EPL football in the UK, replicating a

methodology previously used in Australian studies. No other studies, to our knowledge, have considered the volume of risky product advertising on non-commercial television in the UK.

In the sample chosen, there was more advertising of gambling, alcohol and hyperpalatable foods during sporting highlights broadcasts on the BBC than there were during live broadcasts of football on Sky.

Given the general perception of BBC television as free from advertising, the inclusion of 123.45 minutes of adverts during a broadcast of 270 minutes was unexpectedly high. On a pro rata basis there was 65.76% more advertising on BBC1 than on Sky, which logged 132.40 minutes of advertising over a 480 minute broadcast. These results indicate that the exclusion of produced commercials from public service broadcasts does not prevent audiences from being exposed to large volumes of advertising. Advertising for risky products, and particularly online gambling, are part of the fabric of sporting arena.

The finding that there was proportionately more advertising of gambling, alcohol and hyperpalatable foods during sporting highlights broadcasts on the BBC than there were during live broadcasts of football on Sky raises several questions. There is strong international evidence that alcohol advertising influences drinking behaviour and intentions in younger adults (Smith and Foxcroft 2009). A recent Australian study has also found that 'the marketing of sports betting brands in sport is increasing the recall and preference of sports betting brands for children' (Thomas et al 2016: 3). Less is known about how behaviour may be influenced when adverts are encountered in media where advertising is not expected, including during public broadcast television or radio. However, it has been suggested that, 'promotional messages which are integrated into the sporting match may not be subject to the same level of scrutiny or cognitive processing from audiences as occurs with traditional advertising' (Lindsay et al 2013).

Across both kinds of broadcast, online gambling constituted the majority of brands advertised (29 out of 30 gambling brands and 57 unique brands overall).

This is noteworthy in light of recent figures from the Gambling Commission which show that online gambling is now the largest sector in the UK (2016). Recent research in the UK has also established that young men, the most likely watchers of football, and users of online gambling services, have higher rates of problem gambling than other groups. (Cowlshaw et al 2017). Further investigation of the levels of problem gambling among particular groups in the UK, and their responses to different kinds of gambling advertising, is needed.

The majority of all advertising seen while watching both highlights and live matches was for online gambling viewed on billboards.

Much of the debate around gambling advertising in the UK focuses on sponsorship of match day kit (including shirts and other clothing) and produced commercials appearing on commercial stations. This study shows that the majority of all advertising seen while watching both highlights and live matches was for online gambling viewed on billboards which accounted for 51% of all advertising on *Match of the Day* and 56% on Sky. The IGRG

and Gambling Commission may wish to consider the regulation of billboards and the inclusion of responsible messaging and counter advertising across all media in future. By breaking down the instances of advertising into categories, this study may help policy makers to devise simple interventions which could have a considerable impact on the exposure to risky product advertising during sporting broadcasts. After-match interviews, for example, included an average of 16 visible adverts, and no responsible messages or counter advertising.

There is a lack of responsible messaging and counter advertising across both kinds of broadcasts.

Despite the high number and frequency of instances of adverts for gambling, alcohol and hyperpalatable food on both channels, there were no references to responsible consumption or to the negative consequences of risky products on *Match of the Day* and very limited references to responsible consumption and no references to negative consequences on Sky. This shows that in the UK, exposure to risky product advertising has become part of the experience of watching sport without the voluntary restrictions which apply to produced commercials.

In Australia, researchers have mooted a quota system – for every gambling advertisement (including those shown on dynamic hoardings) a harm prevention advertisement must be broadcast (Thomas et al 2015). The impact of such a measure would depend on the efficacy of the messages chosen. The international evidence suggests that responsible gambling messages and counter advertising are not always effective (Livingstone et al 2014). At the very least, such measures should be independently devised and evaluated (Thomas et al 2015). If effective measures which discourage gambling among vulnerable groups cannot be found then restrictions or bans, as for tobacco, may be warranted.

There are more instances of gambling advertising during live sporting events broadcast in the UK than were recorded by similar studies in Australia.

The study found that the volume and proportion of gambling advertising in both commercial and non-commercial broadcasts was far higher in the UK than in Australia, where a ban on gambling advertising during live sporting events was announced by Prime Minister Malcolm Turnbull in May 2017 (news.com.au 2017). UK regulators may wish to consider the evidence used to support the ‘siren to siren’ ban adopted in Australia and whether or not such an approach might also be appropriate in the UK (Bestman et al 2015, Thomas et al 2016).

Children are wearing adult replica shirts which advertise alcohol and gambling.

The Gambling Commission, Portman Group and Industry Group for Responsible Gambling (IGRG) may wish to investigate the sizing of unbranded children’s replica kit. At least two episodes of *Match of the Day* included images of people apparently aged under 18 wearing replica kit advertising alcohol (Everton – Chang beer) and / or gambling (Swansea – BetEast). The voluntary codes agreed by the Portman Group (for alcohol) and by the IGRG include the removal of sponsoring operators’ logos from all children’s merchandise. However, children’s replica kit are generally sized up to 14 years of age: Hull’s largest child size, for example, is

extra-large for boys, which Sports Direct sizes as age 13, whilst the junior home jersey at Swansea City goes up to age 14. The codes are therefore ineffective in preventing young people aged between 14 and 18, or indeed younger children who are large for their age, from wearing branded replica kit and in doing so, advertising gambling and alcohol while underage.

Research in Australia also suggests that young people may aspire to wearing the adult kit because it is a closer reproduction of their on and off field role models (Deans et al 2016).⁸ This suggestion could be used to support a ban on sponsorship of all replica kit and requires more investigation in the UK. In Victoria many Australian Football League teams have signed up to a Responsible Gambling Charter which requires them to eschew gambling sponsorship, minimise the exposure of gambling activities and advertising to young people, and raise awareness of the risks of gambling in the club community. In the UK, GambleAware, or one of the other charities involved in minimizing the harm caused by gambling, could produce an equivalent charter and invite EPL teams to sign up to it.

Limitations of this study

The *Match of the Day* episodes and Sky Sports broadcasts were selected based on availability. A more comprehensive study could consider all episodes/match broadcasts in a season enabling researchers to compare, for example, weekday and weekend matches, to investigate how sponsorship is related to the number of instances generated, or to identify seasonal changes in the volume or content of advertising.

Viewership data was triangulated where possible via open BBC data on iPlayer statistics and BARB viewing data. Socio-demographic data for both live broadcasts and also users of download services would allow us to assess whether or not they are being viewed by young people or other groups that are particularly vulnerable to harms caused by gambling or alcohol (Cowlshaw et al 2017).

This method counts the two-second appearance of a logo on a billboard and a 30 second produced commercial as a single 'instance'. Further research is needed to explore any systematic differences in the impact on viewers of adverts of different types and duration.

Methodological improvements could be made, including the use of 4K quality recordings and editing suites to capture per-frame timings to ensure total timing accuracy. Eye-tracking technology might enable us to conduct a more refined investigation of actuated responses to advertising.

Qualitative research with young people at football matches would enable researchers to test some of the hypotheses that have emerged from this study and from similar work in Australia (Bestman et al 2015).

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⁸ In Australia, Deans et al 2016 have analysed gambling advertising and its use of both 'hero' roles in sporting celebrity and of 'mateship'.

Conclusions

It is very difficult for researchers, politicians and parents in the UK, all of whom grew up when the advertising of sports betting was banned, to comprehend the new ways in which sport and gambling are intertwined, including ‘embedded’ advertising which is very difficult to distinguish from content, if such a distinction is even meaningful any longer. As one parent explained during an interview:

You have to be so careful that you make (the separation between gambling and sport) clear to them because my youngest thought that was part of the game. He had in his mind that the gambling part was like a game you play with the side. Do you see what I mean? He didn’t make any separation between the sport and the gambling. He thought they were part of the same thing. Scary isn’t it! It was really hard to unravel it and when you see it from his point of view – his whole life he’s seen gambling with football, you can see why he thought that. (David, father of 7 year old)

Researchers, politicians and parents are experiencing what has been described as a ‘gamblification’ of sport (McMullan and Miller 2009), but children are not. They encounter a seamless assemblage which includes sport, social media, gambling, advertising, influencing, celebrity, wealth, information, entertainment, and so on.

This paper is a call to study these assemblages as they are experienced by different groups, particularly young people. In Australia, evidence produced using a combination of qualitative and quantitative methods has already been used to prompt changes in the way that gambling is advertised around sport, and changes in the deals made between leagues, teams, gambling sponsors and fans. In the UK we are at the start of the process of producing the evidence that is necessary to make informed choices about the relationship between sport and gambling. This might include exploring a more proactive approach to educating children about the dangers of gambling, alcohol and hyperpalatable foods using social media campaigns by their heroes or peers, for example, or by embedding counter advertising that is legible to young people in sporting broadcasts. The purpose of this paper has been to provide a starting point for this important discussion.

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Notes

We have shared the data generated as Excel sheets in SocArXiv in the hope that other researchers will make use of them. They may be accessed here:
<https://osf.io/preprints/socarxiv/ae7js>

Conflicts of interest

Neither author has any conflicts of interest to declare.

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