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Gambling Advertising and Incidental Marketing Exposure in Soccer Matchday Programmes: A Longitudinal Study

Steve Sharman,[a1] Catia Alexandra Ferreira,[b] Philip W.S. Newall[c]

[a] *National Addiction Centre, Institute of Psychiatry, Psychology, & Neuroscience, King's College London; School of Psychology, University of East London*
[b] *School of Psychology and Sport Science, Anglia Ruskin University, Cambridge Campus*
[c] *School of Psychological Science, University of Bristol; Experimental Gambling Research Laboratory, School of Health, Medical and Applied Sciences, CQUniversity*

Abstract: Gambling is marketed in English soccer across various formats such as TV advertising, social media, pitch side hoardings, and shirt sponsorship. There have been recent reductions in TV advertising brought about by self-regulation, but gambling shirt sponsorship remains frequent, and can lead to a high frequency of incidental marketing exposure on TV. Knowledge is lacking on how gambling advertising frequency and marketing exposure have changed over time in other media, such as in matchday programmes. This study addressed this gap via a content analysis of programmes for 44 teams across 3 periods spanning 18 months (*N*=132). The number of gambling adverts decreased from 2.3 to 1.3 per-programme, while incidental exposure prevalence stayed constant, at a higher rate of 42.7 incidences per-programme. Teams sponsored by gambling companies had more adverts per-programme than those sponsored by other industries (2.3 versus 1.2), and also had more incidental exposure (58.8 versus 20.2). Incidental exposure to gambling marketing was consistently more prevalent (42.7) per-programme than alcohol (3.2) or safer gambling messages (3.1). Furthermore, across all timepoints, 56.8% of dedicated children's sections contained incidences of gambling marketing. Researchers and policymakers should consider that sports fans can get exposed to gambling marketing through a number of channels outside of TV advertising. Indirect and incidental exposure to gambling marketing remains high, which can be particularly challenging for those experiencing gambling related harm. All forms of gambling marketing must be considered when making legislative changes.

Keywords: Sports gambling, advertising, marketing, sponsorship, gambling harm

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Introduction

Commercial determinants of health can be a powerful factor in influencing health behaviour, and marketing can be considered an important element of such determinants (de Lacy-Vawdon & Livingstone, 2020). Sport has a history of advertising unhealthy products, from the tobacco industry's relationship with Formula One racing, to the sponsorship of major events such as the Olympics and the FIFA World Cup by alcohol and unhealthy food brands (Ireland et al., 2019).

However, rarely has one industry attained the prominence within one sport as that currently held within UK soccer, by the gambling industry. UK soccer fans are exposed to gambling marketing in myriad ways (Newall, Moodie et al., 2019), including via billboards around the pitch (Purves et al., 2020), during adverts in breaks (Newall, Thobhani et al., 2019), highlights shows such as *Match of the Day* (Cassidy & Ovenden, 2017), social media (Gainsbury et al., 2016; Houghton et al., 2019; Killick & Griffiths, 2020), direct marketing (Syvertsen et al., 2020), soccer-related apps (Jones et al., 2020), and, also for match going fans, via matchday programmes (Sharman et al., 2019). One of the most prominent ways soccer fans are exposed to marketing and advertising is through shirt sponsorship (Bunn et al., 2019). The prevalence of gambling shirt sponsors has increased across seasons: In the Premier League era (1992-93 onwards), different industries have provided greater or lesser proportions of shirt sponsors. In the first ten years of Premier League football, shirt sponsorship was dominated by electronics companies such as JVC, Brother, and Sharp, and alcohol brands such as McEwans, Carlsberg and Holsten. The 2002-03 season saw the first partnership between a gambling company, Betfair, and a Premier League team, Fulham. As sponsorship by electronics companies and alcohol

[1] Corresponding author. National Addiction Centre, Institute of Psychiatry, Psychology, & Neuroscience, King's College London, 4 Windsor Walk, Camberwell, London, SE5 8AF, United Kingdom; School of Psychology, University of East London, Water Lane, Stratford E15 4LZ, UK
Email: stephen.p.sharman@kcl.ac.uk

brands decreased, gambling sponsorship increased: In the 2006/07 season, there were more teams in the Premier League sponsored by gambling companies than alcohol companies, for the first time. By 2019/20, ten out of 20 Premier league clubs had a gambling company logo on their shirts. The increase in gambling shirt sponsors is also observed in the second tier of English soccer, the Championship. The increase in Championship clubs sponsored by gambling companies has been more recent, and arguably more dramatic than the Premier League. In the seasons between 2010/11, and 2015/16, only two clubs were sponsored by gambling companies. This increased to eight in the 2016/17 season, 13 in the 2017/18 season, and 17 in the 2018/19 season. In the 2019/20 season, 16 out of 24 Championship clubs were sponsored by gambling companies (Sharman, 2020).

A recent study sought to identify the prevalence of gambling marketing specifically in matchday programmes, the informational booklets available at matches that provide details about the game, and teams involved (Sharman et al., 2019). The study found that in matchday programmes, incidental exposure to gambling marketing (e.g., a gambling logo that was not a direct advert) was found on 22% of pages, significantly higher than either alcohol marketing or safer gambling messages. The study also found that teams with gambling shirt sponsors had more gambling marketing exposure both in the absolute count of exposures, and the proportion of pages with gambling exposure. A further finding revealed that 59% of child-specific sections of programmes contained exposure to gambling marketing (Sharman et al., 2019). These findings are important as they highlight how gambling marketing can be presented in this particular medium, which is accessible by children. Findings from this study were reported in the mainstream UK media (Davies, 2019), and were cited by the House of Lords Select Committee in their report on the Social and Economic Impact of the Gambling Industry (Select Committee, 2020). Gambling sponsors on shirts can also expose children to gambling marketing through other media. A recent study by Djohari et al. (2021) examined exposure to gambling logos in sticker albums, trading cards and football magazines marketed directly to children. The study reported that gambling logos, primarily through front of shirt sponsorship, were visible in 41% of stickers in the Merlin 2018 Premier League album, and in 42% of stickers in the 2020 Panini Premier League album. Gambling logos were also visible in football magazines, with one issue of the magazine *Kick! Extra*, featuring 59 gambling logos – 1.64 per page.

The impacts of extensive exposure to gambling marketing through pitch side branding and shirt sponsorship can serve to normalise gambling within sports culture (McGee, 2020), and may also be specifically harmful for problem gamblers (Hing et al., 2017). The finding that more than half of child-specific programme sections contained gambling references is relevant given findings on children's awareness of gambling marketing. In Australia, Pitt et al. (2016) found that 91% of children and 98% of adults could recall having seen a promotion for sports wagering when viewing sports, and 75% of children and 90% of adults reported that sports wagering was becoming a normal part of sport. In comparison, in the UK, Djohari et al. (2019) found 78% of a sample of UK children considered gambling to be a normal part of sport. To address the increased exposure to gambling advertising for children and vulnerable groups, in 2019 the Committees of Advertising Practice (CAP and BCAP) published new guidance, to be enforced by the Advertising Standards Authority (ASA) and implemented from 1st April, 2019. Of particular relevance to gambling advertising within soccer are the points that stress the guidance covers all advertising (not just TV advertising), that gambling adverts are not placed in media for under-18s, that adverts should not be promoted by individuals that are likely to be of particular appeal to children, including sportspeople, and the prohibition of the use in gambling adverts of sportspersons who are, or appear to be under 25 (CAP, 2019).

In addition to the ASA regulations, the gambling industry standards body, the Betting and Gaming Council (BGC) implemented a number of pledges and commitments to safer gambling. One pledge included a requirement for all betting adverts to include safer gambling messages, even those accessed via search engines indicating the scope is intended beyond just TV adverts (BGC, n.d.). However, recent research suggests that adverts that do contain age warnings or safer gambling messages often have poor visibility (Critchlow et al., 2020), and adverts that present safer gambling messages do not reduce gambling behaviour (Newall et al., 2021). BGC members also adopted a "whistle-to-whistle" ban during pre-watershed live sports, a pledge which sought to remove gambling adverts from five minutes before kick-off, to five minutes after. A report commissioned by the BGC claims that during the whistle-to-whistle period, the number of gambling adverts seen on TV by children fell 70%, and that betting adverts seen by children fell 97% (BGC, 2021). However, the report does not acknowledge the impact of other forms of marketing visible during broadcasts, including exposure to shirt sponsorship, competition sponsorship or pitch side advertising. Nor does the BGC report acknowledge that indirect exposure continues outside of the live broadcast, when images of players and gambling logos are found in multiple other media sources.

The ASA legislation and the BGC's whistle-to-whistle ban have focused on very prominent forms of marketing (advertising), but indirect forms of marketing exposure (e.g., shirt sponsorship) are also important to address because of their prevalence across different media, visibility across age groups, and continued circulation long after individual matches have ended.

The issues relating to gambling exposure through shirt sponsorship and other forms of gambling advertising have not gone unnoticed by the UK Government. In July 2020, the Government Select Committee on the Social and Economic Impact of the Gambling Industry published a report: *Gambling Harm – Time for Action*. The report made a number of recommendations, including that "Gambling operators should no longer be allowed to advertise on the shirts of sports teams or any other part of their kit. There should be no gambling advertising in or near any sports grounds or sports venues, including sports programmes" (Select Committee, 2020, para. 524). Although these recommendations have not as yet been passed into law, a number of football league and non-league clubs have taken the stance to not accept gambling sponsorship money, sending an open letter to the UK government, urging them to review the relationship between gambling and football (ITV News, 2022).

However, despite this recent focus on gambling marketing exposure, there is still a lack of evidence on the frequency of advertising and indirect marketing exposure through other forms of media such as matchday programmes. The matchday programme is traditionally an important part of the football matchday experience, providing supporters with information on the team line ups, match reports, player interviews, club news, and pictures and/or posters of star players. Programmes can be read before the match, at half-time, and long after the game has finished, and are often kept as souvenirs, and for significant matches (e.g., a cup final) often increase in value after the event (Joy of Creating, 2018). Programmes are read by supporters of all ages, including those that are under 18. Many programmes have a dedicated children's section, with puzzles such as word searches, spot the difference games, etc. Children's sections vary between programmes, ranging from a single page to multi-small page pull-out sections. It is therefore important to quantify the exposure to gambling through this medium, to better inform the discussion around changes to legislation for gambling marketing. Matchday programmes are a useful example of how exposure to gambling marketing is not always fleeting in the manner of TV adverts, but rather remains part of a product that has an enduring presence.

It is important for policy makers to consider all the different ways in which sports fans can be exposed to gambling marketing – not just through TV advertising. The 2019 ASA legislation changes emphasise how gambling adverts should not be placed in media accessed by under-18s, and that adverts should not be promoted by individuals that are likely to be of particular appeal to children, including sportspeople. Matchday programmes feature pictures of sports people almost exclusively, and are accessed by supporters aged under 18. It is therefore important to establish the impact of the ASA changes in the context of media beyond TV adverts. To facilitate this, the current study sought to extend previous research and examine gambling exposure in soccer matchday programmes across three time points between October 2018 and October 2019, and sought to answer the following research questions:

1. Is there a difference in exposure to gambling adverts and gambling incidental exposure before (T1), immediately after (T2), and six-months after (T3) the ASA regulation change, as measured by absolute counts of exposure and proportion of pages with exposure?
2. Is the industry of the shirt sponsor (gambling/non-gambling) related to exposure to gambling marketing within each matchday programme, and has this changed over time?
3. Is exposure to gambling advertising and marketing higher at each timepoint (T1, T2, T3) than exposure to alcohol or safer gambling advertising or marketing?
4. By how much would removing gambling shirt sponsors reduce overall exposure to gambling marketing in matchday programmes?
5. Is exposure to gambling marketing still prevalent in child-specific sections of matchday programmes?

Methods

Materials

Utilising a repeated comparative cross-sectional study design, data were drawn from the official matchday programmes from teams in the top two divisions in English soccer (the Premier League and the Championship) at three distinct timepoints. Timepoints encompassed consecutive matchday weekends six months prior to ASA standards implementation (T1: 19th-22nd and 26th-29th October 2018), immediately following ASA standards implementation (T2: 12th–15th and 19th-22nd April, 2019) and six months post ASA implementation (T3: between 4th–27th October, 2019; longer data collection frame to account for an international break). In the 2018/19 season, 26 teams across the Premier League and Championship were sponsored by gambling companies (Premier League (9), Championship (17)). In the 2019/2020 season, the number remained the same: 26 teams across the two divisions were sponsored by gambling companies (Premier League (10), Championship (16)). The T1 wave uses the data from Sharman et al. (2019), whereas the data from T2 and T3 are novel to the present study. Programmes were sourced from a range of suppliers, predominantly ebay.co.uk, and football-programmes.net.

In total, 132 programmes were purchased (44 programmes for each time point). Each team featured once as the home team, and once as the away team. Within each programme, the competition (Premier

League/Championship), the price, the number of pages, the match attendance, and the industry of the shirt sponsor of both the home and away teams (gambling/non-gambling) were recorded. Programmes cost an average of £3.27 (Range £2-£5, *s.d.* 0.4) and were on average 83.6 pages long (Range 40-132, *s.d.* 14.1). The total attendance of the matches in the three timepoints studied was 3,784,293 fans.

Procedure

For each page, the presence and number of instances of exposure were coded according to product type (gambling, alcohol, and safer gambling messages). Direct adverts were coded as a single instance, regardless of how many times the advertiser's logo appeared in the advert. Incidental exposure, classified as clear brand placement where the majority of the brand was visible and recognisable (e.g., a shirt sponsor), was recorded in two ways: where incidental exposure to the same brand appears repeatedly on the same page, each instance was recorded as a separate instance of incidental exposure; the cumulative total is subsequently referred to as the absolute count. Furthermore, the presence of any gambling, alcohol or safer gambling marketing was recorded (yes/no) allowing calculation of the overall percentage of pages in each programme that contained each type of product marketing exposure. Where safer gambling adverts contained gambling branding, this was coded as a safer gambling advert, and gambling incidental exposure. In T2 and T3, incidental exposure was further broken down into exposure type (shirt sponsor, competition sponsor, other) to allow comparison of frequencies if shirt sponsorship was hypothetically removed. Instances of incidental exposure to gambling and alcohol marketing in children's sections of programmes were also recorded.

Coding Consistency

Approximately 10% of programmes were coded by two researchers to establish inter-rater reliability using an Intraclass Correlation Coefficient (ICC). Analysis used a single measure, mixed, two-way model of ICC based on absolute agreement (Hallgren, 2012). As shown in Table 1, inter-rater agreement was high, with an ICC varying between 0.9 and 1, indicating an excellent level of agreement (Cicchetti, 1994).

Table 1. Inter-rater Reliability Statistics

		95% Confidence Interval	
	ICC	Lower	Upper
Gambling Adverts	1	1	1
Alcohol Adverts	1	1	1
Safer Gambling (SG) Adverts	1	1	1
Incidental Exposure Gambling	0.98	0.98	0.99
Incidental Exposure Alcohol	1	1	1
Incidental Exposure SG	1	1	1
Incidental Gambling Exposure	0.94	0.93	0.95
Main Shirt sponsor (Gam) (n)	0.93	0.92	0.94
Competition Sponsor (n)	0.9	0.88	0.92
Other (Gam) (n)	0.95	0.95	0.96
Incidental Alcohol Exposure	0.99	0.99	0.99
Main Shirt Sponsor (Alc) (n)	1	1	1
Other (Alc) (n)	0.99	0.99	0.99
Incidental SG Exposure (n)	0.93	0.92	0.94
Main Shirt (SG) (n)	all zero		
Other (SG) (n)	0.93	0.91	0.94

Data Analysis

Analysis was performed in SPSS 26. One way ANOVA models were run to ascertain the main effects of predictor variable *Time* (Timepoint T1, T2, and T3) on outcome frequency variables (Absolute count, Proportion of pages) for adverts and incidental exposure. Univariate ANOVA models were used to ascertain the main effect of predictor variable *Industry* (Gambling sponsored, Non-gambling sponsored), on outcome frequency variables (Absolute Count, Proportion of pages) over time. Repeated Measures ANOVA models were used to analyse the main effect of predictor variable *Type* (Gambling, Alcohol and Safer Gambling) on outcome frequency variables over time. The potential impact of removing shirt sponsors was measured by comparing total absolute counts of

incidental exposure, and total counts minus exposure through shirt sponsorship in T2 and T3 via a paired samples *t* test. The proportion of child-specific sections of programmes containing any gambling exposure was compared between timepoints using a chi-squared test, and the absolute count of exposures was compared via a one-way ANOVA model.

An alpha level of .05 was used in ANOVA models unless sphericity was violated, whereby Greenhouse-Geisser corrections are reported. Where data were not normally distributed, ANOVA models were preferred to the non-parametric Kruskal-Wallis test due to the reported robustness of the F statistic when data is non-normally distributed (Blanca et al., 2017; Ferreira et al., 2012). Post-hoc pairwise comparisons were run where main effects were identified through ANOVA models; the Tukey HSD test was applied unless sphericity was violated, whereby the Games-Howell test was used. Bonferroni corrections for multiple comparisons were applied. Eta squared is reported as a measure of effect size. Effect sizes were reported as either small ($\eta^2 = 0.01$), medium ($\eta^2 = 0.06$), or large ($\eta^2 = 0.14$), (Miles & Shevlin, 2001). Error bars represent the standard error mean [SD/sqrt (N)].

Results

Adverts and Incidental Exposure: Gambling over Time

To address RQ 1, a one-way ANOVA model with the number of gambling adverts as the dependent variable and timepoint as a factor showed that the number of adverts per programme had decreased over time (F (2, 129) = 6.99, p = .001). Using a Bonferroni corrected alpha of 0.17, post hoc tests indicate the number of adverts per programme was higher in T1 (M = 2.3, *s.d.*= 1.4), than at both T2 (M = 1.5, *s.d.* = 1.2), (p = .017), and T3 (M = 1.3, *s.d.* = 1.3), (p = .002). Number of adverts at T2 and T3 did not differ significantly (Figure 1A). A further model showed a significant decrease in the proportion of pages containing gambling adverts per programme (F (2, 129) = 5.15, p = .007). Post hoc tests indicate that the proportion of pages containing gambling adverts was significantly higher in T1 (M = 2.8, *s.d.* = 2.3) than at T3 (M = 1.6, *s.d.* = 1.5), (p = .008), but was not significantly higher than T2 (M = 1.9, *s.d.* = 1.6), (p = .048) when using a Bonferroni corrected alpha of 0.017. Timepoints T2 and T3 did not differ (p = .79), Figure 1A.

Models were also run to identify changes in incidental exposure to gambling marketing over time. Programmes in T1 contained an average of 37.8 incidental exposures to marketing per-programme, compared to 46.3 at T2, and 43.9 at T3. ANOVA models indicate that the proportion of pages per programme with incidental gambling exposure (F (2, 129) = 0.20, p = .82) and the absolute counts of gambling exposure (F (2, 129) = 1.03, p = .36), did not change significantly over time (Figure 1B).

Figure 1A. Number/Percentage of Pages (Adverts)

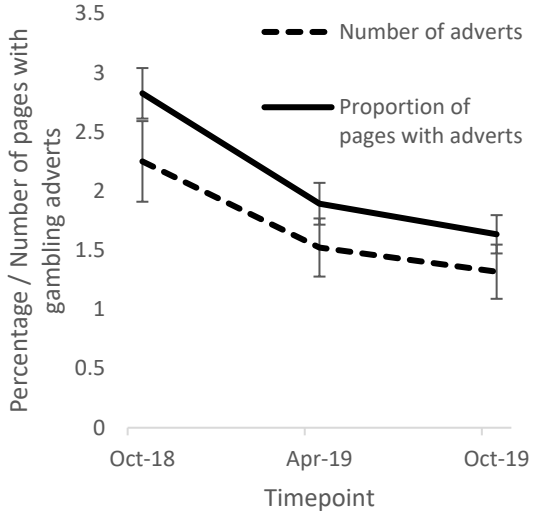
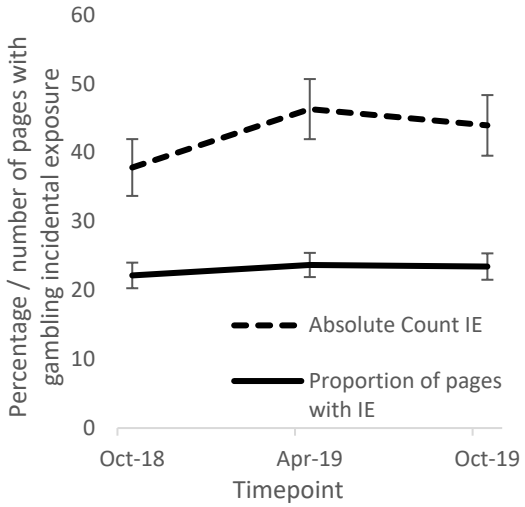


Figure 1B. Absolute Counts/Percentage of Pages



Importance of the Industry of the Home Shirt Sponsor

Adverts

To address RQ2: The main factor of Industry of sponsor (Gambling or other) was significant (F (1, 126) = 43.67, p <.001, $\eta^2 = .28$), indicating that teams with a gambling industry shirt sponsor had an average of 2.3 gambling adverts per programme across all timepoints, compared to 1.2 per-programme for those with a non-gambling shirt sponsor. The main factor of Timepoint was also significant (F (2, 126) = 10.05, p <.001, $\eta^2 = .14$), indicating the overall number of gambling adverts across all programmes had decreased between timepoints (Figure 2A). The Timepoint x industry interaction was not significant (F (2, 126) = 0.85, p = .43, $\eta^2 = .01$), indicating that the main effects of Industry of sponsor and Timepoint are not related. When analysing

the proportion of pages containing adverts per programme, the main factor of Industry of sponsor (F (1, 126) = 27.26, p <.001, η^2 = .18) was significant, indicating that teams with a gambling sponsor had a higher proportion of pages of the programme dedicated to gambling adverts. The main factor of Timepoint (F (2, 126) = 6.74, p = .002, η^2 = .10) was also significant, indicating that across all programmes, the proportion of pages dedicated to gambling adverts has decreased over time. The Time x Industry interaction was not significant (F (2, 126) = 0.53, p = .59, η^2 = .01).

Figure 2A. Number of Gambling Adverts by Sponsor Industry

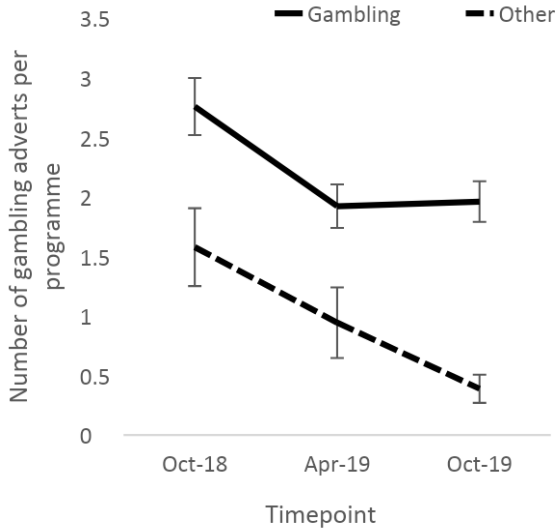
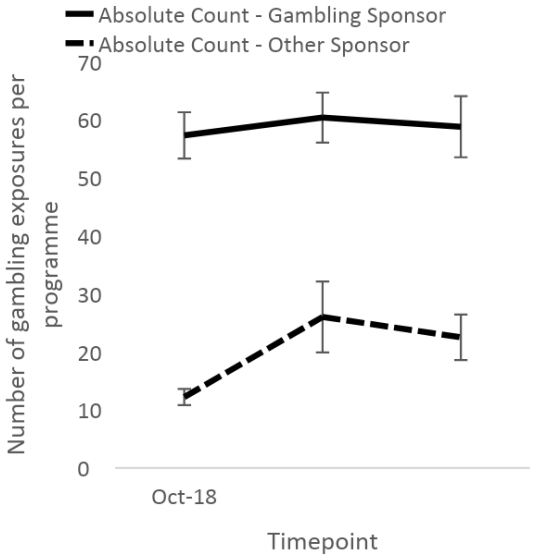


Figure 2B. Incidental Exposure by Sponsor Industry



Incidental Exposure

For RQ2, the main factor of Industry (Gambling or Other) was significant (F (1, 126) = 106.65, p <.001, η^2 = .46). Teams with a gambling industry shirt sponsor had an average of 58.8 instances of incidental exposure to gambling per-programme, significantly higher than the 20.2 instances for those with a non-gambling shirt sponsor. The main factor of Time (F (2, 126) = 1.80, p = .17, η^2 = .028) was not significant, indicating that the number of incidental exposures per programme has not changed over time. The Time x Industry interaction was not significant (F (2, 126) = 0.79, p = .46, η^2 = .012). See Figure 2B. For proportion of pages containing Incidental Exposure, the main factor of Industry (Gambling or Other) was significant (F (1, 126) = 117.17, p <.001, η^2 = .48), indicating that teams with a gambling industry shirt sponsor had a higher proportion of pages (30.4%) with incidental exposure to gambling than those with a non-gambling shirt sponsor (12.7%). The main effect of Time (F (2, 126) = 0.34, p = 0.71, η^2 = .005), and the Time * Industry interaction were not significant (F (2, 126) = 1.01, p = 0.37, η^2 = .02). Fans of teams with a gambling shirt sponsor continued to face a higher rate of incidental gambling exposure than those of teams without a gambling shirt sponsor.

Gambling, Alcohol, and Safer Gambling Messages

Adverts

To address RQ3: The Type * Timepoint interaction (F (3.73, 240.35) = 13.12, p <.001, η^2 = .17), and the main factor of Type were significant (F (1.86, 240.35) = 46.33, p <.001, η^2 = .26), indicating that overall, there were more gambling adverts (1.7) than either alcohol (0.6) or safer gambling (0.8) adverts per programme. The main factor of Timepoint was not significant (F (2, 129) = 0.33, p =.72, η^2 = .005) (Figure 3A). When analysing the proportion of pages with a gambling, alcohol, or safer gambling advert, the Type * Timepoint interaction (F (3.66, 236.25) = 11.93, p <.001, η^2 = .16), and the main factor of Type: (F (1.83, 236.25) = 39.22, p <.001, η^2 = .23), were significant. The main factor of Timepoint was not significant (F (2, 129) = 0.30, p .74, η^2 = .005).

Figure 3A. Gambling, Alcohol, and Safer Gambling Adverts over Time

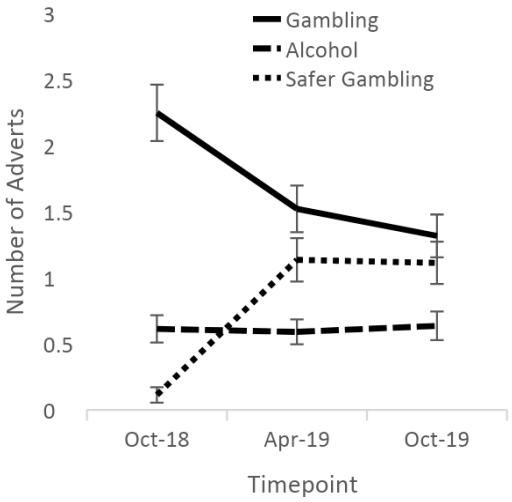
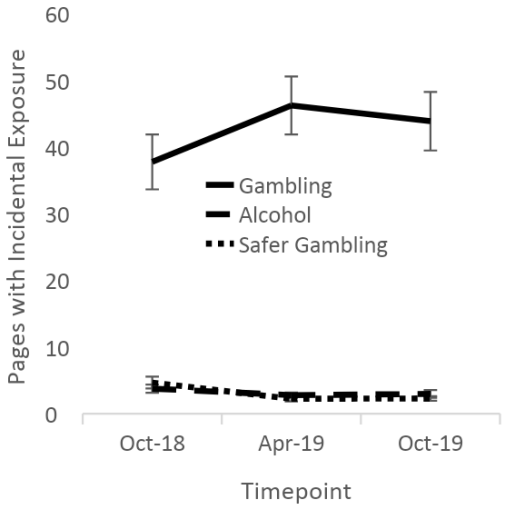


Figure 3B. Gambling, Alcohol, and Safer Gambling Incidental Exposure over Time



Incidental Exposure

In relation to RQ3, for incidental exposure, the main factor of Type was significant (F (1.05, 135.88) = 258.86, p <.001, η^2 = .67) driven by larger numbers of incidental exposure to gambling marketing, compared to either alcohol or safer gambling marketing. As seen in Figure 3B this difference was substantial, with 42.7 incidences of exposure to gambling, 3.2 incidences of exposures to alcohol marketing, and 3.1 incidences of exposures to safer gambling messages, per programme. The main factor of Time (F (2, 129) = 0.31, p = .74, η^2 = < .005), and the Type * Time interaction (F (2.11, 135.88) = 1.59, p = .21, η^2 = .024) were not significant (Figure 3B). The ANOVA models for proportion of pages showed a similar pattern. The main factor of Type was significant (F (1.19, 152.96) = 371.71, p < .001, η^2 = .74), driven by higher gambling incidental exposure. The main factor of Time (F (2,129) = 0.04, p = .96, η^2 = .001) and the Time * Type interaction were not significant (F (2.37, 152.96) = 0.33, η^2 = .005).

Removal of Shirt Sponsor

To address RQ4: Further analysis sought to measure if hypothetically removing gambling shirt sponsors would reduce the absolute counts of incidental exposure. Absolute counts of incidental exposure were significantly higher (M = 45.1, *s.d.* = 28.9) than they would have been if gambling shirt sponsors were not allowed (M = 15.3, *s.d.* = 15.7), (*t* (87) = 12.19, p <.001).

Children's Sections

To address RQ5: At T1, 88.6% of programmes had dedicated children's sections (*n=39).* The corresponding figures were 86.4% (*n=38)* for T2, and 93.2% (*n=41)* for T3. Chi squared analysis indicates that the proportion of children's sections that contain gambling exposure has not changed over time (χ^2 (2) = 0.35, p = .83). At T1, 59% of children's sections contained incidental gambling exposure; corresponding figures were 55.3 for T2 and 56.1 for T3 respectively. A one-way ANOVA showed the absolute count of gambling exposures in child-specific sections did not vary across Timepoint (F (2) = 0.94, p = 0.39), see Table 2. Children's sections of programmes did not contain any direct gambling adverts.

Table 2. Gambling Exposure in Child-specific Sections of Programmes

Timepoint	Children's sections (n / 44)	Proportion of children's sections with Gambling Exposure	Absolute count of gambling exposures	
			Mean	*s.d.*
T1	39	59	1.5	2
T2	38	55.3	1.8	2.4
T3	41	56.1	2.3	3.5

Discussion

This study sought to analyse frequencies of adverts and incidental exposure to marketing for gambling, alcohol and safer gambling, in soccer matchday programmes across three different time points – the first before ASA regulation change, the second immediately after the change, and the third approximately six months after regulation change, in a new season. Results indicate that the gambling adverts have decreased from 2.3 gambling adverts per programme to 1.3 adverts per programme since the implementation of the ASA regulations. However, the absolute counts of incidental exposure to other forms of gambling marketing – 37.8 instances per programme at T1, compared to 43.9 instances per programme at T3- do not vary significantly (RQ1). Teams sponsored by a gambling company have more adverts, and more incidental exposure to gambling marketing than non-gambling industry sponsors at all time points (RQ2). Exposure to gambling marketing was higher than exposure to alcohol or safer gambling messages across all time points – 1.7 gambling adverts per programme, compared to 0.8 safer gambling adverts, and 0.6 alcohol adverts, per programme, and 42.7 incidences of Incidental exposure to gambling marketing, compared to 3.2 and 3.1 exposures to alcohol marketing and safer gambling messages respectively (RQ3). Removing gambling sponsors from the front of shirts would reduce overall gambling exposure by almost 60% in matchday programmes (RQ4); the proportion of child-specific programme sections that contained exposure to gambling marketing (T1 - 59%; T3 – 56%), and the absolute counts of gambling exposure in children's sections (T1 – 1.5; T3 – 2.3) have not changed over time (RQ5).

In relation to exposure prior to and after changes to the ASA regulations, there were fewer gambling adverts in matchday programmes following the implementation of the ASA regulations, a reduction from 2.3, to 1.3 adverts per programme. Concurrently, the proportion of pages in programmes taken up with gambling adverts also decreased. However, when considering incidental exposure to gambling, both the absolute count of exposures and proportion of pages with incidental gambling exposure remained the same over time. At T1, the mean count of absolute exposure was 37.8 per programme; at T3, the mean count was 43.9 exposures per programme. This suggests that whilst the ASA legislation could potentially have had an impact on actual adverts, it has done little to prevent the absolute frequency of exposure to gambling marketing for those who read matchday programmes. It is likely that this finding is generalisable to other forms of exposure to gambling marketing, such as cards, stickers, and magazines, as highlighted by Djohari et al. (2021), further normalising gambling within sports culture (McGee, 2020).

The industry of the shirt sponsor (i.e., gambling vs. other) can also be considered an important factor in the prevalence of exposure to gambling marketing. Teams who have a gambling industry sponsor have more gambling adverts and proportion of pages consumed by gambling adverts, than teams who are sponsored by another industry. The absolute counts of incidental gambling exposure averaged almost 60 exposures per programme for gambling sponsored companies, compared to approximately 20 exposures for non-gambling sponsored teams. Elevated brand exposure will lead to increased brand recognition (Pitt et al., 2016), and gambling normalisation (Torrance et al., 2021). Some gambling companies advertise across teams, and in all programmes, whereas other advertisers only advertise when they are the main sponsor, often promoting loyalty inducements and boosted odds offers for home team supporters, drawing on fan loyalty to develop brand loyalty (Lopez-Gonzalez et al., 2021).

When comparing exposure to gambling marketing to alcohol and safer gambling marketing through both adverts and incidental exposure, gambling marketing was consistently higher across all time points than exposure to safer gambling or alcohol adverts or messaging. Safer gambling adverts have increased since ASA legislation implementation, and gambling adverts have decreased, indicating a shift in established patterns for adverts. However, the same pattern is not observed when measuring incidental exposure. Incidental exposure to gambling was consistently significantly higher than either safer gambling or alcohol marketing, again highlighting both the increased exposure through shirt sponsorship, and the inadequacy of focusing legislation on traditional adverts (Jones et al., 2020). Furthermore, it should also be noted that many of the safer gambling adverts, including those highlighting available gambling tools, still contained branding from the company offering the tools. It can therefore be considered that although the adverts were for safer gambling, they are still advertising of sorts, and are still trying to encourage individuals to gamble with a specific site, just using an alternative marketing strategy (Guillou-Landreat et al., 2021).

A significant proportion of incidental exposure to gambling marketing comes from gambling shirt sponsors. Analysis that compared outstanding incidental exposure if the shirt sponsorship was hypothetically removed, showed that removing gambling shirt sponsors would reduce the absolute counts of incidental exposure by almost 60%. This is particularly salient when considering child specific sections of matchday programmes. Across all timepoints, over half of children's sections contained incidental exposure to gambling. Furthermore, the absolute counts of incidental exposure to gambling marketing have not decreased over time. At the most recent Timepoint, T3, child-specific sections of programmes averaged 2.3 exposures to gambling marketing - almost exclusively through pictures of

players in shirts with a gambling sponsor. Perhaps unsurprisingly, there were no traditional gambling adverts in these sections – however current legislation allows incidental exposure to be presented in sections of programmes specifically aimed at children, which can be problematic for this group (Clemens et al., 2017; Hing et al., 2014; Pitt et al., 2016).

Increasing and consistent exposure to marketing and advertising has been shown to increase engagement with a specific product or behaviour, or increased brand recognition across a variety of domains, including alcohol (Jernigan et al., 2017), caffeinated drinks (Hammond & Reid, 2018), e-cigarettes (Chen-Sankey et al., 2019) and tobacco (Henriksen, 2012). Gambling is no different, and multiple studies have reported positive associations between advertising and marketing across different media, and gambling behaviour, attitudes or intentions (Bouguettaya et al., 2020). Exposure to gambling marketing is thought to be particularly harmful for specific groups including children and young people (Clemens et al., 2017; Hing et al., 2014; Pitt et al., 2016), and those experiencing gambling harms (Hanss et al., 2015; Syvertsen et al., 2021). The current results demonstrate consistent exposure through the matchday programme, often through multiple instances of brand exposure on the same page. However, the causal link between this specific type of indirect exposure and gambling behaviour is an area that warrants further study.

The findings presented in this paper are novel and highly relevant to current UK legislation and regulation around gambling advertising and marketing. Whilst the current legislative focus may centre on TV advertising, particularly in relation to children watching football, greater clarity is required on exactly what constitutes marketing and advertising, and who is subsequently responsible for regulating these activities. Future policy decisions in the UK regarding gambling marketing and advertising must consider not just TV adverts, but also the presence and exposure to indirect forms of marketing, such as shirt sponsors.

Limitations

Although it presents some robust findings, the present study was not without limitations. This study looked especially at one form of media, the paper form of the matchday programme; it could be argued that the physical programme is becoming less a part of the matchday experience. With more and more content delivered online (Syvertsen et al., 2020) and through social media (Gainsbury et al., 2016; Houghton et al., 2019; Killick & Griffiths, 2020), the content of the matchday programme is becoming less important, a situation exacerbated by COVID-19. Future studies could address exposure in online matchday communications from clubs, which may be individually curated based on the age and browsing history of the individual. Furthermore, although the current study endeavoured to compare Timepoints across different seasons, the data analysed only represents a snapshot of the season and does not give a clear picture as to the level of gambling marketing exposure across a whole season. Non-significant time trends found in the present study may reflect a lack of sufficient repeated observations over time.

Conclusions

Data from the current study indicates that since the implementation of 2019 ASA regulations regarding gambling advertising, the mean number of gambling adverts per soccer matchday programme has dropped from 2.3 at T1 (October 2018) to 1.3 at T3 (October 2019). However, the absolute counts of incidental exposure per programme, primarily through shirt sponsorship have remained stable, between 37.8 at T1 and 43.9 at T3. Therefore, it is argued that legislation which has largely focused on direct advertising, should be expanded to incorporate other forms of advertising and marketing. Exposure to gambling through more frequent exposures to incidental/indirect gambling marketing is not addressed by current legislation, and must be considered in future proposals.

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Philip Newall is a member of the Advisory Board for Safer Gambling – an advisory group of the Gambling Commission in Great Britain, and in 2020 was a special advisor to the House of Lords Select Committee Enquiry on the Social and Economic Impact of the Gambling Industry. In the last three years Philip Newall has received research funding from Clean Up Gambling, and has contributed to research projects funded by GambleAware, Gambling Research Australia, NSW Responsible Gambling Fund, and the Victorian Responsible Gambling Foundation. In 2019 Philip Newall received travel and accommodation funding from the Spanish Federation of Rehabilitated Gamblers, and in 2020 received an open access fee grant from Gambling Research Exchange Ontario.

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Author Details

Dr Steve Sharman is a Research Fellow in Gambling Studies at the National Addiction Centre, King's College London where he works examining the influence of within-game constructs on gambling behaviour using virtual reality, and with UK treatment providers to reduce gambling related harms. He was previously funded by a Society for the Study of Addiction Academic Fellowship, examining gambling behaviour, at the University of East London. His primary research interests focus on researching the influence of within-game constructs on gambling behaviour, using virtual reality. Steve completed his BSc in Psychology at UEL, an MSc in Cognitive Neuroscience at UCL, and a PHD in Experimental Psychology at the University of Cambridge.

Dr Philip Newall is a Lecturer at the University of Bristol. He has previously held postdoctoral positions at the Experimental Gambling Research Laboratory at Central Queensland University, Australia, the University of Warwick, and the University of Munich. He completed a BSc in Economics and Statistics at UCL, an MSc in Cognitive and Decision Sciences at UCL, and a PhD in Economics at Stirling University. He has won funding from multiple different funding bodies, published many peer-reviewed articles, presented data to different Government bodies and evidence call, and is a current member of the Advisory Board for Safer Gambling.

Ms Catia Ferreira completed a BSc in Psychology at the University of East London, and an MSc in Research Methods at Anglia Ruskin University.

ORCID

Steve Sharman 0000-0001-9816-7981
Philip W. S. Newall 0000-0002-1660-9254