# In the Arena of Debate: A Systematic Literature Review on Sports Sponsorship by Controversial Industries

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## Abstract

**Purpose** – This systematic literature review examines the domain of sports sponsorship involving controversial industries. We delve into the shared patterns, differences, and overarching themes prevalent across various dark consumption industries (i.e., alcohol, food and beverages high in fat, salt and sugar, gambling, and tobacco).

**Design/methodology/approach** – This study systematically reviews research on controversial sports sponsorships (CSS). Literature searches in Web of Science and Scopus, and additional searches in reference lists resulted in a total of 91 publications meeting the inclusion criteria, which can be grouped into three research clusters: prevalence, impact, and (in)appropriateness of CSS.

**Findings** – This review revealed a high prevalence of so-called controversial sponsors in sports, particularly in – but certainly not limited to – soccer. Especially gambling sponsorships have become more prominent in recent years. Ethical concerns surfaced since CSS are positively related to attitudes, preferences, purchase intention, and consumption, potentially causing health-harming consequences for children and adults.

**Originality** – In light of the identified research gaps, we propose a research agenda to particularly investigate causal relationships between exposure to CSS and its impact by conducting longitudinal and experimental research. Additionally, we propose to establish a consumer-centered framework for processing CSS.

**Implications** – This study provides scholars and practitioners with insights to advocate for policy measures curbing CSS.

**Keywords** – Sports Sponsorship; Controversial Sponsorship; Alcohol; Gambling; Food and Beverages; Sports Integrity

Paper type – Literature review

## Introduction

The global sports sponsorship market was valued at approximately 97.35 billion US dollars in 2023, with an anticipated annual growth rate of 8.68 percent, approaching 190 billion US dollars in 2030 (Statista, 2023). Although numerous economic sectors are sponsoring sports, a large amount of the sports sponsorship revenue stream is generated by companies that sell unhealthy or controversial products. Researchers previously operationalized these controversial products, also referred to as

unhealthy products, as alcohol, gambling, food and beverages high in fat, salt or sugar (HFSS), and tobacco (Ireland, 2021; Scully et al., 2023). These sponsorships are hereafter further referred to as controversial sports sponsorships (CSS) in line with Ireland et al's (2024) conceptualization of unhealthy sponsors. Controversial brands are twice as likely to sponsor sports (Maher et al., 2006), with their prevalence still expanding (Ireland et al., 2019).

Explained from a commercial perspective, brands experience various benefits from their sponsorship relationships with sports (Farrar & Faunce, 2017). First, sports sponsorship enables brands to expose their products to large audiences, for instance during a soccer match throughout different media (e.g., in a stadium, on television, social media), followed by media coverages of that soccer match (Ireland, 2023), thereby increasing brand awareness, brand image, brand preferences, and purchase intention (Scully et al., 2020). Moreover, sponsorship is perceived as less intrusive compared to other marketing strategies such as advertisements (Mason, 2005). As these positive effects of sports sponsorship are also generated for companies that sell controversial products, public health concerns arise. These concerns are related to the positive and healthy image associated with sports that is transferred to controversial products (Dixon et al., 2019), resulting in the controversial products being perceived as less harmful (Farrar & Faunce, 2017). This phenomenon is called the health halo effect (Whalen et al., 2018).

Thus, questions arise regarding the appropriateness of CSS (Thomas et al., 2023a). Lamont et al. (2011) identified several public health concerns specifically related to gambling sports sponsorships, including targeting vulnerable people (e.g., minors, people struggling with gambling disorder), triggering new and existing gamblers to gamble (again), and normalizing gambling through its integration with sports. The same ethical questions already surfaced within the review of McKelvey (2004), as he argued that gambling operators' goal is to use sports to turn gambling into an acceptable, entertaining, and normalized activity. Even young adults are aware of the normalizing effect of gambling advertising (Thomas et al., 2023c). These concerns extend to other CSS as well. For instance, the harmful impact of tobacco sponsorship was not initially apparent to consumers, largely because smoking had been normalized (Hanstad & Waddington, 2009). Further, tobacco companies have employed questionable strategies, such as using corporate social responsibility (CSR) programs in youth sports to cultivate a positive brand image, potentially increasing future consumption (Siahaya & Smits, 2021). In Formula 1, tobacco brands remain involved through CSR initiatives despite advertising bans, maintaining visibility by exploiting loopholes in advertising laws, such as sponsoring through their foundations that are indirectly linked to their products (Dewhirst & Lee, 2023).

Some literature review studies on CSS have already been executed. However, these studies all focus on sponsorship research for a single controversial product type, and primarily on sponsorship by

food and beverages HFSS. Ireland et al.'s (2019) review study showed that it is the most common and largest sponsorship category in professional English sports. Additionally, a systematic review on the relationship between exposure to alcohol sports sponsorship and alcohol consumption concluded that exposure resulted in higher self-reported alcohol consumption and increased risky drinking behavior (Brown, 2016). Piaggio's (2019) review also highlighted the clear association between soft drinks and gaining weight in children, as he found an effect of exposure to sponsorship by soft drinks on children's preferences, intention, and consumption. Besides that, Dixon et al. (2019) argued in their review about food and beverages HFSS that repeated exposure to CSS can increase consumers' preferences even when they perceive a better fit between the sponsored entity (e.g., soccer) and a healthy sponsor. Deshpande et al. (2023) also highlighted ethical concerns surrounding food advertising, especially targeted at vulnerable groups like children. Therefore, they and other researchers call for stronger regulations to curb the negative impact of CSS on public health.

As these existing literature review studies on CSS research have solely focused on one controversial product, this hampers a holistic view and overarching insight into CSS research. Systematically reviewing and integrating the insights of all CSS research (i.e., alcohol, gambling, tobacco, food and beverages HFSS) will provide a deeper exploration of commonalities, differences, and overarching themes that may emerge across different controversial industries. CSS warrant specific attention due to three unique particularities compared to general sponsorship. First, controversial sponsors raise ethical concerns due to their potential harm to public health (Boelsen-Robinson et al., 2022; Danylchuk & MacIntosh, 2009). These sponsorships can damage the reputation and image of both the sports organization and sponsor. This might lead to negative public sentiment, regulatory scrutiny, and fan backlash (Crompton, 2014). In contrast, general sponsorships typically lack this level of ethical and reputational risk. Second, sports attract diverse audiences, including young fans. CSS may be viewed as promoting unhealthy or harmful behaviors, making the ethics of targeting vulnerable groups more pressing. In general sponsorships, there is usually less focus on the moral implications of targeting specific audiences (Withouck, 2023). Third, controversial sponsorships often face stricter legal and regulatory challenges compared to general sponsorships. Governments or sport's governing bodies may impose restrictions on advertising certain products. These constraints add complexity to managing controversial sponsorship deals, while general sponsorships typically face fewer legal hurdles (R. Davies, 2024). This systematic literature review provides an overview of the CSS literature to fully identify and better explain its public health impact, thereby offering support for scholars and practitioners who are recommending policy measures to curb CSS (Dixon et al., 2018; Gee et al., 2017; Thomas et al., 2023b).

# Methods

### Search strategy and selection of studies

We conducted a systematic literature review to better explain CSS. Building on Kraus et al.'s (2022) well-established approach to execute a systematic literature review, we established a set of criteria to select and analyze relevant scientific publications. First, we selected two prominent databases, i.e., Web of Science and Scopus, recognized as the primary repositories for scholarly articles (Pranckutė, 2021). Subsequently, we determined keywords and Boolean operators (e.g., AND, OR) based on previous research (Ireland et al., 2022). Afterwards, we optimized, revised, and narrowed down the keywords to avoid irrelevant studies. The keywords were further refined based on our own expertise and the expertise of three expert scholars from diverse fields. This procedure resulted in a combination of two packages of keywords, respectively focusing on 1) sports sponsorship and 2) controversial industries (see table I).

[Insert – Table I. Identified keywords – here]

We searched for publications in the search fields "article title", "keywords", and "abstract", limited to original articles, reviews, and editorials. Publications with a publication date up to February 15, 2024 were included. This approach resulted in the identification of 144 articles in Web of Science and 253 articles in Scopus. Following Page et al. (2021) all retrieved articles went through the PRISMA statement process of selection (see Figure I). As a result, 90 studies were included in our final sample.

[Insert – Figure I. PRISMA Statement – here]

## Data extraction

Each publication was fully screened and analyzed based on its methods, research object (e.g., professional, children or grassroot sports organizations), and theoretical foundation. Moreover, the first author identified research clusters based on qualitative coding. Research clusters were formed based on recurring and overlapping concepts and themes. Initial coding was discussed and adjusted with the other authors, resulting in three research clusters: prevalence (n=21, 23.3%), impact (n=43, 47.8%), and (in)appropriateness of CSS (n=26, 28.9%). Impact can be further divided into recall and awareness (n=9, 20.9%), consumer outcomes (n=29, 67.4%), and brand outcomes (n=5, 11.6%). Consumer outcomes relate to consumers' beliefs, attitudes, preferences, intentions, and behaviors, while brand outcomes focus on outcomes such as brand trust and image. The (in)appropriateness deals with ethics (n=15, 57.7%) and policy (n=11, 42.3%).

## Results

## General insights

The findings revealed a predominant focus on singular controversial products (64.4%), including food and beverages HFSS (n=20, 34.5%), alcohol (n=17, 29.3%), tobacco (n=10, 17.2%) and gambling (n=10, 17.2%). Few publications delved into the simultaneous investigation of multiple controversial products (35.6%). Besides that, there was also one study that did not define the sector and was therefore classified as 'others' (1.7%). Most studies were conducted in Australia (n=38, 42.2%), the UK (n=20, 22.2%), and the US (n=12, 13.3%), followed by Europe (n=8, 8.9%), Canada (n=5, 5.6%), New Zealand (n=5, 5.6%), and India (n=2, 2.2%).

Figure II depicts an evolution over time. The first study on tobacco sponsorship was published in 1984, investigating the persuasive impact on children (Ledwith, 1984). Research on tobacco sponsorship ceased in 2011, with one exception in 2016, whose data were already collected in 2008 (Erguder et al., 2016). The almost global ban on tobacco advertising in the early 2000s might explain this observation. Research on alcohol sponsorship is equally spread between 1999 and 2023 with some peaks in 2009, 2011 and 2016. It was not until 2004 when the first article was published on gambling sports sponsorship, investigating the associated risks between sports and gambling operators (McKelvey, 2004). From 2011, gambling sponsorship was increasingly investigated, peaking in 2015. Tobacco sponsorship might have largely been replaced by gambling sponsorship (both in practice and research). Food and beverages HFSS sponsorship is frequently researched over time, starting in 1996 with research on the sponsorship decision-making process in the fast food industry (Cousens & Slack, 1996).

## [Insert – Figure II. Time Evolution Research on CSS – here]

Survey research was most common (n=21, 23.3%), followed by experimental research (n=16, 17.8%), quantitative content analysis (n=15, 16.7%) and review studies (n=11, 12.2%). Other research methods were less common: in-depth interviews (n=6, 6.7%), focus group studies (n=1, 1.1%), descriptive studies (n=3, 3.3%), document analysis (n=1, 1.1%), event study (n=1, 1.1%), case studies (n=2, 2.2%), and other qualitative studies (e.g., observations and ethnographic study) (n=3, 3.3%). Additionally, eight studies developed a mixed methods research design (8.9%) (e.g., survey and interview, survey and experiment), one study was an editorial (1.1%), and one study was a critical analysis (1.1%).

### Theoretical foundation of CSS research

Prior CSS research has examined certain theoretical frameworks that could elucidate the effectiveness of sports sponsorship, albeit to a limited extent. Notably, most studies did not specifically rely on theory (n=73, 81.1%). Among those that did (n=17, 18.9%), the congruency theory was

predominantly utilized (n=5) followed by the image transfer theory (n=2). Hence, the theoretical foundation within research on CSS remains limited.

Alonso-Dos-Santos et al. (2023) discovered that participants develop more positive and sincere attitudes when the sports sponsor is perceived as congruent. They also noted that a gambling brand can influence consumers to bet on sports by appearing more congruent and sincerely linked to sports. Conversely, Martinez & Janney, (2015) found that sponsors perceived as incongruent, like alcohol sponsors, faced negative market reactions such as reduced purchase behavior. Sponsorship congruence not only impacts consumption and market reactions but also enhances the sponsor's brand image, especially among highly engaged fans (Brochado et al., 2018).

The impact of CSS can also be explained through (image) transfer theory, suggesting that sponsorship allows positive attributes from the sponsored event to transfer to the sponsoring brand (Kelly & Ireland, 2019). Kelly and Ireland (2019) explore this by studying how image transfer mediates the relationship between exposure to alcohol sponsorship and brand attitude, as well as alcohol consumption. Their findings indicate that image discrepancy mediates the effects of exposure on brand attitude and consumption. Specifically, they found that image discrepancy has a significantly negative association with brand attitude in this context.

Ireland et al. (2024) examined tensions between economic and cultural capital within the English Premier League (EPL) through Bourdieu's Cultural Capital Theory. Club officials, possessing significant economic capital, argue that CSS are fundamental for the club's financial model, and regulating these sponsorships could threaten it. Conversely, fans, representing cultural capital, uphold the club's values and standards. According to Bourdieu, the dominance of economic capital over cultural capital results in symbolic violence, as fans lack power to transform sponsorships despite perceiving inconsistencies with their club. Consequently, fans accept these sponsorships as necessary for the club's survival (Ireland et al., 2024).

Finally, and specifically for gambling sponsorship, De Jans et al. (2024) developed an industryspecific, consumer-focused framework to explain consumers' responses to gambling sponsorships through four consecutive stages: sponsorship exposure, sponsorship processing mechanisms, perceptions about gambling and outcomes (i.e., consumer, brand and sponsored entity outcomes). They also consider individual (e.g., socio-demographic factors, psychological factors) and contextual (e.g., regulation, cultural differences) factors that can potentially affect gambling sponsorship's efficacy.

# **Prevalence of CSS**

Controversial sponsorship appear much more common in sports than healthy sponsorship. For instance, no team in the Australian Football League (AFL) was sponsored by a so-called healthy

company, that is a company that promotes a healthier lifestyle (Sartori et al., 2018). Consequently, controversial sponsorship occurs twenty times more than healthy or pro-health sponsorship in the AFL (Nuss et al., 2019). CSS manifest itself in both shirt or billboard and commercial break sponsorship (Ireland et al., 2021a). Other sponsorship techniques are chair sponsorship, signage above the dressing rooms and verbal mentions during commentary (Lindsay et al., 2013).

Most studies on multiple CSS focus on professional sports. In New Zealand sports 18.8% of the sponsors were gambling companies (Maher et al., 2006). English soccer (i.e., Premier League and Championship) matchday programs contained 2.3 gambling references per program. That was significantly more than alcohol (0.61) and responsible gambling references (0.1) (Sharman et al., 2020), the same applied to incidental CSS exposure (Sharman et al., 2022). Also during the FIFA World Cup 2018, gambling references in commercial breaks were more prominent (45.2%) compared to other products (Ireland et al., 2021a). Bunn et al. (2019) focused specifically on the prevalence of gambling sports sponsorships in the EPL and Scottish Premier League (SPL) after the UK introduced the Gambling Act in 2005. Just after legalization, 95% of gambling sponsors were first-time EPL or SPL sponsors. EPL clubs exhibited more gambling shirt sponsors (n=10) compared to SPL clubs (n=2). Gambling sports sponsorship was also prominent in TV coverage during the 2022 World Cup Qatar, Sharman et al. (2023) registered 156 gambling references promoting gambling and only 20 references promoting so-called safer gambling.

In the AFL, most sponsorship mentions were for food and beverages HFSS, followed by alcohol and gambling (Macniven et al., 2015; Nuss et al., 2019; Sartori et al., 2018). The Australian National Rugby League's sponsorship differed with alcohol as the largest category, followed by gambling, food HFSS, and non-alcoholic beverage sponsorship (Lindsay et al., 2013). Even in youth sports food and beverages HFSS sponsorship appeared the most prominent sponsor category (25%), followed by alcohol (25%) and gambling (20%) (Ireland et al., 2021a; Nuss et al., 2019). Thirty percent of youth sports organizations in Australia seemed to have guidelines on acceptable sponsors. Most sponsors did not match the guidelines or criteria because health experts classified half of the food and beverages sponsors did not meet the health criteria based on their nutritional quality (Bragg et al., 2018).

Australian cricket prominently featured alcohol and food HFSS sponsorship on shirts and billboards (Sherriff et al., 2010). Visual references (e.g., billboard advertising, banners on the field of play, signage) play a key role in highlighting sponsorships, and this is particularly true for alcohol sponsorships, which are prominently displayed during professional sports games (i.e., soccer, rugby, tennis, cricket, soccer), mostly visible half of the time (47%) (Chambers et al., 2018; Graham & Adams, 2014; Purves et al., 2017). Chambers et al. (2018) showed that professional sports sponsorship and

merchandising accounted respectively for 53.7% and 37.4% of all alcohol advertising children are exposed to at home.

In summary, CSS remains prevalent across various professional sports, with gambling, alcohol, and food and beverage HFSS companies consistently dominating the sponsorship landscape (Macniven et al., 2015; Sharman et al., 2020). Despite some guidelines in youth sports, these types of sponsors continue to have a strong presence, often outnumbering healthier options (Kelly et al., 2011a). Visual advertising, including billboards and shirt sponsorships, is a major avenue for promoting these sponsors, with alcohol and gambling references being particularly prominent (Ireland et al., 2021b). This widespread prevalence highlights the ongoing dominance of CSS in both professional and youth sports (Nuss et al., 2019).

# The impact of CSS

Especially parents often encounter conflicting emotions when controversial industries sponsor healthy activities (Prowse et al., 2022; Shoffner & Koo, 2022). It appears inconsistent to promote or serve controversial products in sports organizations dedicated to promoting healthy and active lifestyles (Grunseit et al., 2012). Consequently, people strive to resolve this inconsistency by categorizing controversial sponsorships as unauthentic (Shoffner & Koo, 2022). This conflicting relationship impacts both consumers and brands, as discussed below.

#### Sponsorship awareness and recall

Compared to adults, minors could better recall alcohol sponsors since they were more exposed to them (Jindarattanaporn et al., 2023), just as boys recognized more alcohol and non-alcohol sponsors than girls (Davies, 2009). Among elementary school children, older children were also more aware of these sponsors than young children (Houghton et al., 2014). Within this last group of children, nearly 70% could identify an alcohol brand as the sponsor of the European Rugby Cup, and 75% of the older children could identify the sponsor correctly recognizing it as an alcohol brand (Houghton et al., 2014).

Djohari et al. (2019) conducted interviews with a magnet placement board activity to examine recall of EPL gambling sponsors. They showed that a significant number of adolescents (46%) and adults (71%), particularly those categorized as super fans, could readily recall various gambling brands. Also, 63% of adolescents and 62% of adults correctly matched at least one gambling brand to an EPL team. On average, female participants had fewer correctly matched pairs than males (Djohari et al., 2019).

There were three studies that specifically focused on recall or awareness of tobacco sports sponsorship. Based on these studies participants seemed to be highly aware of and able to recognize cigarette brands in sports (Beguinot et al., 2010). Even when they were not interested in motor racing, such as Formula 1, almost 83% could correctly recall Marlboro as a tobacco brand in F1 sports sponsorships (Beguinot et al., 2010). Additionally, participants who were highly educated, male or smoked themselves were able to observe even more cigarette sponsors in sports (Erguder et al., 2016). The same occurred for children, as almost all children could recall a tobacco brand, older children were able to correctly recall the brand with a snookers team more often. Higher recall rates could be associated with the exposure to sports sponsorship (Ledwith, 1984). Additionally, Davies et al. (2009) assumed that recall and awareness of CSS could also stimulate consumer outcomes (i.e., perceptions, attitudes, preferences, intentions, behaviors).

#### Consumer outcomes

Comparing CSS types, McDaniel and Mason (1999) found that beer sports sponsorship was more accepted than tobacco sports sponsorship. However, personal factors such as behavior and interests play an important role here, as noted by Kropp et al. (1999). They found that smokers were more positive toward tobacco sponsorship while drinkers favored alcohol sponsorship. Generally, older participants thought that tobacco sports sponsorship was less acceptable (McDaniel & Mason, 1999). Also, the congruence between a brand and a sports event is deemed important for sponsorship effectiveness among young adults (Dixon et al., 2020; McDaniel & Heald, 2000).

A study investigating the association between alcohol sports sponsorship and drinking patterns revealed a concerning prevalence of hazardous drinking among participants, with alcohol sponsorship exposure significantly correlating with increased risky drinking scores. Men reported higher rates of drinking alcohol compared to women (O'Brien et al., 2011). Also among adolescents, high sporting involvement (F. Davies, 2009) and exposure to alcohol advertising (De Bruijn et al., 2016) were associated with increased alcohol consumption. Regarding grassroots sports within universities, the sports-alcohol nexus emerged as a key facilitator of increased alcohol accessibility. Despite concerns about peers' drinking behavior, participants expressed positive attitudes towards alcohol sponsorship, reporting heightened consumption in case of direct exposure (Kelly et al., 2014). Alonso-Dos-Santos et al. (2020) found no difference in drinking intention when young adults were exposed to an alcohol sponsor, incongruent sponsor, or congruent sponsor in tennis, sailing, and Formula 1. His eye-tracking study did show that longer fixations on an alcohol sponsorship were equivalent to an increased degree of intention to buy the sponsored product (i.e., alcohol) (Alonso-Dos-Santos et al., 2021).

In the context of gambling perceptions among young people and adults in the UK, Djohari et al. (2019) showed that both age groups perceived gambling as a commonplace activity associated with sports, with three-quarters of adolescents viewing it as normal for adults, while 20% of adults considered it normal for adolescents. Negative sentiments towards gambling sports sponsorship were

prevalent, especially among adults (Djohari et al., 2019). Interestingly, a study on Australian adults found that the theory of reasoned action accurately predicted gambling intentions. Both attitude towards and exposure to gambling sponsorship are associated with gambling sponsor response (i.e., favorability and use of the sponsor). This, in turn, showed a positive association with attitudes towards gambling and gambling intention. Participants thus showed an increased propensity to engage in gambling activities (Hing et al., 2013).

Children's consumer socialization process is affected by CSS, since repeated exposure to CSS resulted in more favorable attitudes towards these products in children (Bestman et al., 2015). Moreover, children also perceived controversial products as normalized in sports sponsorship. Children absorb these sponsors (Pettigrew et al., 2013), which can result in more positive attributes, such as perceiving controversial products as cool, and therefore increase unhealthy preferences and consumption (Kelly et al., 2011b). For instance with tobacco sports sponsorship, smoking quadrupled in children after they watched a sporting series as they were more tempted to try or buy cigarettes after being exposed to these sponsorships (Vaidya et al., 1996, 1999). However, studies by Dixon et al. (2017, 2018) could not prove the relationship between controversial sponsorship exposure and food preferences in children. Scully et al. (2020) also found in youth sports that food and beverages HFSS sponsorship exposure led to a higher preference for the sponsored product in parents.

## Brand Outcomes

While the studies above examined recall and awareness of and consumer outcomes for CSS, some studies also focused on brand outcomes. Sports sponsorship in the food industry is determined through three distinct approaches: independent (local franchisees decide), communal (joint decisions with higher management), and controlled (local franchisees excluded). Despite these approaches, global standardization is crucial to align with local markets, offering professional sports global visibility (Cousens & Slack, 1996). During major sports events like the Olympic Games, official controversial sponsors see short-term boosts in consumer purchases and increased sales in the US, with sponsored products consumed more during these events (Cho et al., 2011).

# **Appropriateness of CSS**

### Ethics

The prevalence of CSS in junior and elite sports raises ethical concerns due to the conflict between sports' health benefits and the risks associated with unhealthy sponsors (Boelsen-Robinson et al., 2022; S. Jones, 2010). These concerns are compounded by the health halo effect, which refers to the transfer of positive attributes of sports to unhealthy products (Ireland & Boyland, 2019), potentially normalizing unhealthy consumption practices (Danylchuk & MacIntosh, 2009). This issue is

exemplified by soccer's role in promoting gambling (Jones et al., 2020). The ethical landscape of CSS is further complicated through potential tensions between parents and club officials, with parents urging officials to reject sponsors promoting negative or unhealthy messages (Danylchuk & MacIntosh, 2009; Gordon et al., 2015), while officials contend that parents are responsible for their children's consumption choices (Zorbas et al., 2023). The financial dependence of clubs on controversial sponsorship deals adds complexity, as these sponsorships offer crucial income according to club officials (Batty & Gee, 2019; Gokani et al., 2022).

# Policy

To address these ethical concerns, the literature suggests five policy options. A first option is a complete ban on CSS, as participants emphasized the government's responsibility to safeguard the population's health through regulation (Boelsen-Robinson et al., 2022). This is often argued based on participants' perceived vulnerability of others (i.e., third-person effect) (Johnston & Bourgeois, 2015). Participants perceive a ban as the sole method to cease CSS exposure to vulnerable groups and therefore better protect them against the health-harming consequences. Accordingly, there is strong support for a complete ban on gambling advertising (Boelsen-Robinson et al., 2022), alcohol-related sponsorships, and food and beverages HFSS sponsorship in youth and elite sports (Kelly et al., 2013).

A second option is counter-advertising and advocacy messages (Scully et al., 2017, 2023). Exposure to counter-advertising and criticism of pervasive sponsorship and its harms, have increased policy support for restricting and banning alcohol sponsorship (Scully et al., 2023). Using inoculation (i.e., countering industry's anti-policy arguments) or narrative components (i.e., personal story about health issue experiences) as advocacy messages has increased policy support and anti-industry beliefs (Scully et al., 2017).

A third option is a shift in government's efforts from solely banning CSS to also promoting healthy lifestyles. Governments should promote a healthy lifestyle by policy coherence, which means coordinating various health initiatives (e.g., healthy school restaurants and regulated CSS) as it is their responsibility to take care of the community (Boelsen-Robinson et al., 2022).

As a fourth option governments could consider exploring the possibility of imposing additional taxes on CSS, directing the generated funds towards health-stimulating initiatives, such as educational initiatives, medical research, health promotion, guidance towards quitting smoking (Hill, 2010; Ivers et al., 2006), and reduced prices for healthy food (Danylchuk & MacIntosh, 2009).

A fifth and final option involves the exploration of alternative funding models, in which parents permit alternative CSS forms without visible branding at sports clubs (Kelly et al., 2013). The preference for alternative funding models is echoed by club officials, underscoring a willingness to

prioritize ethical considerations over financial incentives if presented with suitable alternatives. Nevertheless, club officials questioned the feasibility of replacing CSS due to potential financial challenges, concerns about long-term implementation success (i.e., sustainability), and distribution across clubs (Zorbas et al., 2023).

#### Discussion and future research agenda

[Insert – Figure III. Future Research Agenda – here]

Figure III visually depicts the interconnectedness of the research clusters, forming the foundation for our future research agenda. Table II provides an overview of research questions and related research methods.

### Theoretical foundation of CSS research

This systematic review reveals limited theoretical grounding in existing CSS literature. These controversial industries differ from other industries as they are perceived as unhealthy industries harming public health (Peluso et al., 2019). We identified solely congruency and image transfer theories as primary explanations for the outcomes of exposure to CSS (Alonso-Dos-Santos et al., 2023; Brochado et al., 2018; Kelly & Ireland, 2019). Expanding upon De Jans et al.'s (2024) theoretical framework for gambling sponsorship, it is crucial to broaden the scope of theoretical frameworks to comprehensively understand the nuances of how and why consumers are affected by CSS in general. De Jans et al.'s (2024) framework could be generalized to sponsorship by all controversial industries. However, future research should examine whether theoretical underpinnings explaining the process of gambling sponsorships can also explain the sponsorship processing by other controversial industries. Future research should test additional theories (e.g., persuasion knowledge, third-person effect, team loyalty, mere exposure, moral appropriateness, normalization, image transfer) in the relation between exposure to CSS and consumer and brand outcomes (RQ1).

Although CSS have particular characteristics, future research should also look for insights in the general sponsorship literature. The importance of examining existing general sponsorship concepts, such as relationship authenticity, should be further expanded in the context of CSS (Charlton & Cornwell, 2019). Future research might also explore identification change (i.e., split identification and ambivalent identification) in the CSS relationship and investigate how this affects sports fans as well as brand outcomes (Clithero et al., 2022; Cornwell et al., 2018). Split and ambivalent identification both involve coexistence of identification and disidentification with a sports team and sponsor, but they differ in their underlying dynamics. Ambivalent identification refers to the presence of conflicting thoughts, feelings or behaviors regarding the relationship between a sports team and its sponsor, leading to

emotional tensions. In contrast, split identification aims to resolve the '*split*', seeking to restore a unified sense of identification (Gutierrez et al., 2010). Another important theory that should be further explored in the context of CSS is signaling theory. In the context of sports sponsorship, signaling theory suggests that brands use sponsorships as signals to communicate their values, quality or credibility to sports fans. By associating with popular sports teams, companies aim to convey positive attributes, such as reliability or status, that may be difficult for consumers to directly observe. This perceived association can enhance the brand's image, consumer trust, and purchasing intention. The signaling works both ways: brands signal their financial capability and altruistic intent by supporting a prestigious team, while sports teams demonstrate their worthiness of sponsorship by attracting high-profile brands, thus reinforcing their value and status (Clark et al., 2002).

### **Prevalence of CSS**

The review revealed high CSS prevalence, particularly in soccer (Ireland et al., 2021a). However, CSS have also clearly penetrated other sports (e.g., tennis, rugby, basketball, cricket) (Maher et al., 2006; Sartori et al., 2018). According to the existing scientific literature, CSS are ubiquitous in sports leagues, events, and clubs in the UK, New Zealand, and the US (Batty & Gee, 2019; Ireland et al., 2022; Piaggio, 2019). Future research should therefore be conducted in unexplored regions and countries – especially in the current largely neglected Global South and other low- and middle-income countries – to enable cross-cultural comparisons across the globe (RQ2). Engaging in these comparisons is especially worthwhile in this area of research, as perceptions on the appropriateness, unhealthiness, required regulations, and normalization of CSS might differ greatly among cultural backgrounds (McCarthy et al., 2020).

Additionally, recent European studies suggested that gambling sponsors were notably more dominant compared to other CSS (Sharman et al., 2020). Conversely, in Australia, the prevalence of alcohol and food and beverage HFSS sponsors stood out (Lindsay et al., 2013; Nuss et al., 2019; Sherriff et al., 2010). Nevertheless, it is difficult to conclude which controversial category is most prominent in different sports. Therefore, future research should measure the prevalence of multiple controversial products in multiple sports. This is particularly interesting since various governments are curbing gambling sponsorship (Belot, 2024). As a result, sports organizations might resort to other and new (potentially controversial) product categories (e.g., cryptocurrency companies, companies promoting their so-called zero-alternatives such as sugar-free or alcohol-free products) (RQ3). Future research could therefore explore the regulatory implications on the revenue diversification from sports organizations depending on controversial industries. Alternative sponsorship models could be explored, prioritizing promotion of health and wellbeing without compromising the financial stability of sports organizations (RQ4). Alternatively, controversial industries may become creative when being confronted with new regulations, finding ways to advertise within regulatory loopholes or gaps, as

recently observed concerning gambling advertising in Belgium (Constandt & De Jans, 2024). On the other hand, some countries have only quite recently started to liberalize gambling, as illustrated by the legalization of sports betting in numerous states in the US (Hill et al., 2020). Future research should also focus on the impact and effectiveness of these opposite regulatory developments (RQ5).

### Impact of CSS

CSS affect consumers' perceptions, attitudes, recall, awareness, propensity to engage in an activity and actual consumption of food and beverages HFSS, alcohol, gambling, and tobacco (Djohari et al., 2019; Jindarattanaporn et al., 2023; Scully et al., 2020). However, these associations were predominantly investigated using qualitative or quantitative research based on self-reported measures, potentially leading to skewed evaluation of a sponsor (Park & Kwak, 2022). Little research has examined the causal relationship between exposure to specific CSS and its impact, particularly for gambling sponsorship. Therefore, future research should conduct experimental or longitudinal research to examine causal relations. For instance, the relation between brand recall and consumer outcomes (RQ6), or the relation between (mere) exposure and attitudes, intentions, and behavior toward the controversial products (RQ7). Another recommendation for future research is based on the assumptions of Dixon et al. (2019). They assumed that healthy sports sponsorship could generate the same positive effects (i.e., increased attitudes, preferences, and consumption) as CSS and that sports could therefore encourage healthier food preferences and consumption (RQ8). Future research can test these assumptions.

For a more comprehensive understanding of the impact of CSS on sports fans, other marketing techniques than sponsorship, such as advertising, branding, and digital marketing could be examined. These techniques should be integrated in a more holistic model to enhance our understanding of their combined effects and interactions. This is particularly important since sports fans are often simultaneously exposed to multiple marketing techniques. Furthermore, the integrated approach should also be extended by including various controversial products, and investigating their impact on consumer outcomes (RQ9). This integrated approach might help to understand the cumulative effects of different marketing forms and contribute to more effective policy measures to curb CSS. Additionally, future research should also explore the Sports Sponsorship Service Ecosystem, as Cornwell et al. (2024) suggested. Sponsorship operates within a complex network of diverse actors and relationships. Therefore, rather than isolating CSS, we should examine its interconnectedness with the sports team, event, community, society, media and governing bodies.

# **Appropriateness of CSS**

This systematic review also revealed ethical concerns with CSS because of its negative effects (Boelsen-Robinson et al., 2022; Kelly et al., 2013). Particularly females, parents, and individuals holding a higher education degree and/or a high socio-economic status expressed their concerns more in previous research (Sainsbury et al., 2018; Zorbas et al., 2023). Although various policy options have been identified in prior research, scant evidence remains regarding the efficacy of these policy interventions (RQ10, RQ11). Since various governments are implementing measures to regulate CSS, particularly gambling sponsorship, it should be interesting to investigate how these restrictions, such as a total ban, affect consumers. There is also insufficient evidence on sports fans perceptions of CSS. Future research should therefore consider fans' views more elaborately, as Ireland's (2021) suggested (RQ12). For instance, researchers could investigate the perceived (in)appropriateness of CSS, how sports fans make this evaluation, and whether these evaluations affect fan behaviors (e.g., match attendance, merchandise purchasing). Additionally, this might also be influenced by the processing mechanisms, and therefore lead to different evaluations or consumer outcomes. For instance, sports fans perceive CSS as appropriate due to their frequent exposure to these sponsorships. Potential differences between fan type or other variables, such as fan loyalty, might be considered.

[Insert – Table II. Research Questions and Related Research Methods – here]

### Strengths and limitations

We conducted a systematic review following the PRISMA statement to outline the current state of CSS research. Nonetheless, it is essential to acknowledge certain limitations. First, our keywords evolved through a thoughtful trial-and-error process, involving multiple researchers, yet valuable publications could have been missed due to our keyword choices. Second, our inclusion criteria were language-based, which resulted in the exclusion of non-English articles. Third, we relied on two prominent databases for scholarly articles, Web of Science and Scopus, which implies that our literature search might not have captured all relevant articles from other databases. However, we partly addressed this potential limitation by manual searches in references lists, resulting in 11 additional articles.

# Conclusion

The current study provided insight into the prevalence, impact and (in)appropriateness of CSS. Based on the literature searches we can conclude that controversial industries are strongly represented in sports sponsorship, particularly in soccer, thereby potentially contributing to the normalization of unhealthy behavior in sports (i.e., drinking alcohol and soft drinks, eating food HFSS, gambling, smoking). Ethical concerns have emerged as a consequence. In summary, this systematic literature review on CSS can provide valuable insights relevant not only to academic research, but also to sports organizations and policy makers. As commercial determinants of health, CSS pose a significant threat to public health by undermining health promotion efforts. To address these challenges, we propose a research agenda aimed at supporting policy makers and practitioners in effectively managing the impact of CSS. Policy makers can use this study to implement a broader public health policy perspective on sport sponsorship, including restrictions similar to those on tobacco advertising. Sports organizations might make better informed decisions about sponsorship and improve the self-regulative management of sponsorship relationships. Subsequently, researchers and practitioners have already been advocating for measures to address the prevalence and visibility of these controversial sponsorships. Due to the evolving and often unknown dynamics of CSS, its impact and explanatory mechanisms, comprehensive causal research is needed.

# Supplementary materials

Available upon request.

# Authors' contributions

KJ: conceptualization; methodology; analysis; writing – original draft; writing – review and editing. SDJ: conceptualization; methodology; analysis; writing – review and editing; supervision. TE: conceptualization; writing – review and editing. BC: conceptualization; methodology; writing – review and editing; supervision. All authors have reviewed and approved the final version of the manuscript.

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# **Conflict of interest**

No potential conflict of interest was reported by the author(s).

# Ethics

This is a review article, involving no human participants, and analyses only publicly available data in the form of previously published material.

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# TABLES

Table 1. Identified Keywords

Package 1: Sports sponsorship		Package 2: Controversial industries
("sports sponsor*" OR "sport sponsor*"	AND	("unhealthy commodit*" OR "dark
OR "shirt sponsor*" OR "jersey		consumption good*" OR "unhealthy product*"
sponsor*" OR "billboard sponsor*" OR		OR "controversial*" OR "harmful product*"
"perimeter sponsor*" OR "stadium		OR "health-harming product*" OR "unhealth*"
sponsor*")		OR "high in sugar" OR "high in fat" OR "high
		in salt" OR "risky product*" OR "beverage*"
		OR "soft drink*" OR "sugary*" OR "fizzy*"
		OR "alcohol*" OR "non-alcohol*" OR "fast
		food" OR "junk food" OR "food*" OR "sweet
		product*" OR "snack*" OR "tobacco*" OR
		"cigarette*" OR "vap*" OR "gambl*" OR
		"bet*")

Source: Authors own work

#### Table 2. Research Questions and Related Research Methods

Nr.	Research question	<b>Research method</b>
1	How are sports fans' attitudes, intentions and behaviors affected by	Experiment
	exposure to CSS? Mediated or moderated by various theories (i.e.,	(longitudinal)
	persuasion knowledge, image transfer, third-person effect).	
2	How prevalent are CSS in different sports competitions, such as in the	Content analysis
	Global South, and which socio-cultural differences are present regarding	
	its normalization?	
3	As CSS are increasingly banned in sports (e.g., tobacco, gambling), are	Content analysis +
	other controversial products, such as cryptocurrencies, stepping in to fill	experiment
	the sponsorship void and what impact does this shift have on sports,	
	brands, and consumers?	

<ul> <li>regulation on their financial stability, and what strategies are they considering to replace the lost revenue?</li> <li>5 What is the impact of the legalization of sports betting in different Survey countries such as the US on consumer behavior, sports viewership, and (longitudinal) + it the first of the term is the first of the second secon</li></ul>	
5 What is the impact of the legalization of sports betting in different Survey countries such as the US on consumer behavior, sports viewership, and (longitudinal) + i	
countries such as the US on consumer behavior, sports viewership, and (longitudinal) + i	
	у
the financial strategies of sports organizations? depth interviews	У
6 To what extent are consumers more inclined to favor, prefer, and consume Experiment, surve	
products from the primary sponsor of their favorite club and does the level	
of brand recall impact this tendency?	
7 How does mere exposure to CSS, across different sponsorship mediums Experiment	
(e.g., shirt logos, billboards, name sponsorship), influence unhealthy-	
related attitudes, intentions, and behaviors among sports fans?	
8 How does mere exposure to healthy sports sponsorship influence health- Experiment	
related attitudes, intentions, and behaviors among sports fans? (longitudinal)	
9 How is exposure to CSS interacting across different marketing techniques Survey	
(i.e., advertising, branding, digital marketing) and thereby influencing	
sports fans' behavior?	
10 How do sports organizations' revenue streams, sponsorship strategies, and Comparative stud	/
public perceptions differ before, during, and after the implementation of	
stricter regulations on CSS?	
11 How do sports fans' perceptions, attitudes, intentions, and behaviors of Comparative stud	/
controversial products differ before, during, and after the implementation	
of stricter regulations on CSS?	
12 How do sports fans perceive CSS and how do they decide on the moral In-depth interview	'S
appropriateness of these sponsorships?	

Source: Authors own work

# FIGURES

Figure 1. PRISMA Statement



Source: Authors own work based on Page et al. (2021)

Figure 2. Time Evolution Research on CSS



Source: Authors own work

Figure 3. Future Research Agenda



Source: Authors own work