Alcohol and fast food sponsorship in sporting clubs with junior teams participating in the 'Good Sports' program: a cross-sectional study

Sharleen Gonzalez,^{1,2} Melanie Kingsland,^{1,2} Alix Hall,^{1,2} Tara Clinton-McHarg,¹ Christophe Lecathelinais,² Nadya Zukowski,³ Sharin Milner,⁴ Shauna Sherker,¹ Ben Rogers,⁴ Christopher Doran,⁵ Daisy Brooke,⁴ John Wiggers,^{1,2} Luke Wolfenden^{1,2}

he excessive consumption of highenergy, nutrition-poor foods increases the risk of unhealthy weight gain and associated morbidities, ¹ and any level of regular alcohol use increases the risk of a range of chronic diseases and injury.^{2,3} Both behaviours, if established in childhood or adolescence, track into adulthood. As such, efforts to reduce early adoption of these behaviours are important in reducing associated morbidity across populations.^{4,5}

Marketing has been found to be particularly influential in child dietary and alcoholrelated behaviours.⁶⁻⁹ A systematic review, for example, found that food promotion can have a direct effect on children's food preferences, nutritional knowledge, purchase behaviour, dietary patterns and diet-related health.¹⁰ Similarly, child and adolescent exposure to alcohol marketing has been found to be associated with earlier onset of alcohol use and higher consumption of alcohol.⁷ Minimising children's and adolescents' exposure to fast food and alcohol marketing has been identified as fundamental to efforts to reduce these behavioural risks by the World Health Organization (WHO).^{11,12}

In a number of western countries, more than two-thirds of children and youth are engaged in organised sports. 13-15 Community

Abstract

Objective: To examine: alcohol and fast food sponsorship of junior community sporting clubs; the association between sponsorship and club characteristics; and parent and club representative attitudes toward sponsorship.

Methods: A cross-sectional telephone survey of representatives from junior community football clubs across New South Wales and Victoria, Australia, and parents/carers of junior club members. Participants were from junior teams with Level 3 accreditation in the 'Good Sports' program.

Results: A total of 79 club representatives and 297 parents completed the survey. Half of participating clubs (49%) were sponsored by the alcohol industry and one-quarter (27%) were sponsored by the fast food industry. In multivariate analyses, the odds of alcohol sponsorship among rugby league clubs was 7.4 (95%Cl: 1.8-31.0, p=<0.006) that of AFL clubs, and clubs located in regional areas were more likely than those in major cities to receive fast food industry sponsorship (OR= 9.1; 95%Cl: 1.0-84.0, p=0.05). The majority (78-81%) of club representatives and parents were supportive of restrictions to prohibit certain alcohol sponsorship practices, but a minority (42%) were supportive of restrictions to prohibit certain fast food sponsorship practices.

Conclusions: Large proportions of community sports clubs with junior members are sponsored by the alcohol industry and the fast food industry. There is greater acceptability for prohibiting sponsorship from the alcohol industry than the fast food industry.

Implications for public health: Health promotion efforts should focus on reducing alcohol industry and fast food industry sponsorship of junior sports clubs.

Key words: junior sporting clubs, children and adolescents, sponsorship

sporting clubs are a setting where fast food and alcohol-related marketing is suggested to be highly prevalent ¹⁶ and in which unhealthy product marketing may have particularly adverse effects. ¹⁷ In an audit of Australian

websites of junior sport development programs that received funding from the Australian Sports Commission, McDonald's was identified as a sponsor of Little Athletics, basketball and swimming in at least one

- 1. School of Medicine and Public Health, The University of Newcastle, New South Wales
- 2. Hunter New England Population Health, New South Wales
- 3. School of Public Health, University of Alberta, Canada
- 4. Alcohol and Drug Foundation, Victoria
- 5. Centre for Indigenous Health Equity Research, Central Queensland University, Queensland

Correspondence to: Ms Sharleen Gonzalez, The University of Newcastle, C/O Hunter New England Population Health, Locked Bag 10, Wallsend, NSW 2287; e-mail: Sharleen.Gonzalez@health.nsw.gov.au

Submitted: April 2019: Revision requested: August 2019: Accepted: November 2019

The authors have stated the following conflict of interest: The financial support from the NIB Foundation grant was provided to the research team through the Alcohol and Drug Foundation, who were recipients of the grant. The NIB Foundation was not involved in the study design; the collection, analysis or interpretation of data; the writing of the report; or the decision to submit the report for publication. The Alcohol and Drug Foundation (SM, SS, BR, DB) delivers programs related to the research being reported.

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

Aust NZ J Public Health. 2020; 44:145-51; doi: 10.1111/1753-6405.12954

Gonzalez et al. Article

Australian state or territory.¹⁸ McDonald's and DB Breweries (a multi-national alcohol producer) were also listed in the top ten sponsors identified in another Australian study, which investigated the nature of sponsorships at the national, regional and club level by analysing club websites. 19 In this study, 24% of junior sponsorships were for unhealthy food products, 15% were gambling related, 3% were alcohol related, and only 3% were health promoting or for healthy food products.¹⁹ In a telephone survey of 108 junior club representatives in Australia, 65% of clubs were found to have at least one sponsor, with some sports codes having an average of 10 sponsors per club.²⁰ Sports-related marketing is particularly salient among children and adolescents. Research suggests that children perceive their sporting club sponsors as 'cool' and report a greater likelihood to purchase their products.²¹ In a large study across four European countries, exposure to alcohol-branded sport sponsorship was found to increase young adolescents' intention to drink alcohol and also increased the odds that they had drunk alcohol in the past 30 days.²²

Public health initiatives are needed to address the adverse impact that junior sporting club sponsorship can have on the health behaviours of adolescents and children. In order to design relevant and effective initiatives, it is important to first understand the extent to which fast food and alcohol sponsorship is occurring at a junior sporting club level and to identify what factors are likely to influence such sponsorship practices. Currently, to our knowledge, few studies have explored the extent to which children are exposed to alcohol and food marketing practices at community sports clubs. 16,23 Further, we have only been able to identify two studies that have sought to identify the types of clubs with such sponsorship. 19,20 Of these studies, one found sports codes to be associated with a number of different types of sponsorships held by clubs with junior and senior teams, with more alcohol sponsors for rugby clubs compared to all other sports collectively, more unhealthy food sponsorship for touch rugby clubs compared to all other sports collectively, and more unhealthy food sponsorship for clubs with junior teams compared to all other types of sponsorship.¹⁹ The other study found that the age of club players was associated with unhealthy food sponsorship, with clubs that had mostly younger players or a mix of age groups

having a higher proportion of unhealthy food and beverage sponsors compared to clubs with mostly older players. ²⁰ Neither of these studies assessed the association between the sponsorship of junior sports clubs by alcohol and fast food industries and club characteristics such as club size, geographic location, and socioeconomic status (SES). Such information is required to ensure that public health initiatives to reduce such sponsorship are appropriately targeted.

Additionally, few studies have explored the attitudes that parents and club representatives hold towards junior sporting club sponsorship practices by the fast food and alcohol industries. 24,25 One survey found the majority of sporting club officials and parents to be supportive of unhealthy food sponsorship restrictions in junior sport.²⁴ Another survey found that three-quarters of parents supported the introduction of policies to restrict unhealthy food and beverages, and alcohol.²⁵ While there is some positive research around club official and parent attitudes regarding junior fast food sponsorship, as far as the authors are aware, no research has been conducted on club representative attitudes on alcohol sponsorship in clubs with junior members. Understanding the views of parents and club representatives is critical to identifying any barriers and enablers that may need to be considered when designing public health initiatives to reduce such sponsorship.

The aims of this study were to assess within junior sporting clubs: i) current alcohol and fast food sponsorship practices, ii) club characteristics associated with sponsorship, and iii) club representative and parent attitudes towards alcohol and fast food sponsorship.

Methods

Study design

Two cross-sectional surveys were conducted, one with club representatives and one with parents and carers of junior players from sporting clubs with junior teams in the Australian states of New South Wales (NSW) and Victoria (VIC). These surveys were part of a larger cluster randomised controlled intervention trial that sought to assess the potential effectiveness and acceptability of an intervention to support the implementation of recommended policies and practices to improve the health promotion environment

of junior sporting clubs. This study uses baseline data from this broader trial.²⁷

Participants and recruitment

Football leagues

Football leagues were eligible to participate in this study if they: were a communitylevel, non-professional football league; were an Australian Football League (AFL) or rugby football league; were located in VIC (AFL) or NSW (rugby league); and had 10 or more clubs with junior teams with Level 3 accreditation in the 'Good Sports' program. Good Sports is an alcohol management accreditation program offered to sporting clubs in Australia and delivered by the Alcohol and Drug Foundation.²⁸ The Good Sports program supports sporting clubs' implementation of alcohol management strategies, with Level 3 representing the highest level of accreditation. A club with Level 3 accreditation has implemented an array of alcohol management strategies such as making sure all bar servers are trained as required by legislation, maintaining three safe transport strategies, and creating a comprehensive alcohol management policy.²⁹ As part of meeting the requirements of the Good Sports program, clubs agreed to pursue non-alcohol sponsorship and revenue sources. No other sponsorship practices were assessed or influenced as part of the program. Brief meetings were arranged with representatives from all eligible leagues to invite those leagues to participate in the study. Consent forms and formal information statements were emailed to representatives from interested leagues after the meetings to

Junior football clubs

obtain written consent.

AFL and rugby league clubs (referred here on in as football clubs), with at least 40 junior players and Level 3 Good Sports accreditation from participating leagues were eligible to participate in the study. Junior-only clubs and clubs with senior and junior teams made up the club sample (referred here on in as clubs with junior teams). Contact was made by Good Sports support staff and all eligible clubs received an email invitation to the study. Clubs agreed or declined to participate via email.

Junior football club committees nominated their club representative. Club representatives were eligible if they were over 18 years of age and were involved in the administration of the junior section of the club (e.g. club president, treasurer, secretary). At the time of the telephone survey, trained research staff confirmed the eligibility of club representatives and obtained their consent to participate in the study.

Club parents and carers

Club parents and carers (here on in referred to as parents) who were at least 18 years of age, spoke English and had a child who was a current junior player of a participating club (i.e. player under 18 years) were eligible to participate in the study. Clubs were instructed to randomly select 10 parents based on the registered children with the most recent birthdays. Club management were provided with electronic and hardcopy information letters and consent forms by research staff to distribute to randomly selected parents. Parents who wished to participate in the project provided their contact details to the club representatives, who then passed on their details to research staff. Trained research staff formally confirmed parents' eligibility and consent to participate in the study via telephone.

Data collection procedures

Computer-assisted telephone interview (CATI) surveys30 were conducted with consenting club representatives and parents from each participating junior football club. Trained interviewers conducted the CATIs during the winter sporting season (March to August 2016). Club representatives completed a survey assessing the alcohol and food sponsorship practices of their junior club as well as their attitudes towards such sponsorship practices (average length: 27 minutes). Parents of junior players completed a survey assessing their attitudes and perceptions regarding junior football clubs' alcohol and food sponsorship practices (average length: 19 minutes). All survey scripts were pilot-tested prior to use.

Measures

Club, club representative and parent characteristics

Information was gathered from league representatives about the following club characteristics: size (number of junior players), football code (AFL or rugby league) and postcode. Club representatives were also asked to report their sex, age and role at the club. Parents were asked to report their sex, age, educational qualifications

and income. These items were sourced from similar surveys that have previously been conducted ^{31,32} and items were drawn from the Australian Household National Survey. ³³

Club sponsorship practices

The alcohol and food sponsorship practices that were assessed were derived from previous literature in the area^{20,24,25} and recommendations by health promotion experts.34 Club representatives were asked to report 'yes' or 'no' to the following questions: "Is your junior club sponsored by an individual, a business, a company or other organisation? (e.g. a local hotel or registered club, a retail outlet, or a fast food chain)." Club representatives who answered 'yes' were then asked: "Do any of your sponsors make, distribute or sell alcohol or represent any such groups? (This includes brewers, licensed venues or associations.)"Those that responded 'yes' were classified as receiving alcohol sponsorship.

To assess sponsorship by the fast food industry, clubs were asked: "Do any of your junior club sponsors primarily manufacture or sell food or non-alcoholic drinks?" If so, clubs were asked to identify the type of sponsor and were provided the following options: Fast food chain (e.g. McDonald's, Hungry Jacks); local restaurant/café; local food retailer (e.g. bakery, butcher); local takeaway shop; primary producer (e.g. sheep farm); local manufacturing company; organisation representing a food industry; other. Those identifying a fast food chain were classified as receiving fast food chain sponsorship. We focussed on fast food sponsorship (only) in this study for two reasons. Firstly, fast food companies had been identified as frequent sponsors of sporting clubs in Australia and as retailers of predominately unhealthy food.¹⁸ Secondly, many sponsors of community sports clubs are local food outlets or retailers, such as cafes, corner stores and bakeries, which sell a range of food and beverages and where a classification of the sponsorship as unhealthy (or otherwise) was considered problematic.

Participants were instructed to answer all sponsorship questions in relation to the junior club/junior arm of the club (i.e. teams with members under the age of 18 years). However, if participants could not distinguish between the junior and senior arms of the club, they were asked to respond with regards to the club generally. Participants completed items assessing alcohol sponsorship prior

to those assessing fast food industry sponsorship.

Alcohol sponsorship practices: Clubs identified as receiving alcohol sponsorship were asked: i) what type of alcohol sponsor they had (hotel/pub, registered club, nightclub, liquor store, licensed restaurant/café, brewer or winemaker, alcohol association, other): and ii) what items they were provided as part of their sponsorship deal (money, clothing [e.g. jerseys], free alcohol, free food, discounted alcohol, discounted food, sporting equipment, other). Club representatives were able to select more than one response for both questions. All clubs, even those not sponsored by the alcohol industry, were asked if they had the following restrictive alcohol sponsorship practices in place: prohibition of alcohol sold or used as prizes to fundraise for junior club; prohibition of alcohol used as an award by junior club; and prohibition of alcohol branding or logos being displayed on junior uniforms/apparel.

Fast food sponsorship practices: Club representatives identified as receiving fast food chain sponsorship were asked the following: i) what type of food or nonalcoholic sponsor they had (fast food chain, local restaurant/café, local food retailer [e.g. bakery, butcher], local takeaway shop, primary producer [e.g. sheep farm], local manufacturing company, organisation representing a food industry, other); and ii) what items were provided as part of the deal (money, clothing [e.g. jerseys], free food, discounted food/drink, sporting equipment, other). Club representatives were able to select more than one response for both questions. Clubs that selected 'fast food chain' were included in the analysis.

Club and parent attitudes towards alcohol and fast food sponsorship

All questions assessing club representatives and parents attitudes towards alcohol and fast food sponsorship were answered using a five-point Likert scale. Club representative and parents were asked to report (yes/no) whether they believed junior sporting clubs had a responsibility to prohibit: i) the display of alcohol branding/logos on junior clothing/apparel; and ii) the use of fast food products or vouchers for prizes and fundraising. Club representatives were also asked to report on whether they believed it was unacceptable for clubs with junior teams to receive sponsorship from: i) alcohol manufacturers or distributors; and ii) fast food outlets. Parents

Gonzalez et al. Article

were also asked to report (yes/no) whether they believed alcohol should not be used as prizes, rewards, or in any fundraising in clubs with junior teams.

Statistical analysis

Descriptive statistics, including: means, standard deviations, frequencies and percentages were used to describe the characteristics of clubs, club representatives and parents and the prevalence of alcohol sponsorship and fast food sponsorship within junior sporting clubs

Logistic regression analyses were used to assess the association between club characteristics and whether clubs were sponsored by the: i) alcohol industry; and ii) fast food industry. The following characteristics were assessed for association with club sponsorship practices: club code (AFL or rugby), club size (larger or smaller club), geographic location (major city or inner/outer regional), and socioeconomic status (more disadvantaged or less disadvantaged). Club size was grouped into smaller 'less than 169 players' or larger 'equal to or greater than 169 players' based on the median size of recruited clubs. Club postcode, based on the Australian Standard Geographical Classification,³⁵ was used to allocate clubs as being in either a 'major

city' or 'inner/outer regional' location. Club postcodes were used to describe clubs as being situated in 'more disadvantaged' or 'less disadvantaged' areas based on the Socio-Economic Indexes of Areas (SEIFA).³⁵

Initially, univariate analyses in the form of, Chi-squared analyses and Fisher's exact when expected cell counts were low (<5) were conducted to explore for possible association between club characteristics and their sponsorship practices. Multivariate logistic regressions models were also conducted to identify factors independently associated with club sponsorship practices.

Results

Sample and characteristics

Following screening, eight sporting leagues were identified as eligible and were invited to participate in the trial. All consented to participate. Eighty-six clubs were eligible from the eight leagues and all were invited to participate in the study. In all, 79 club representatives (consent rate 92%) consented to be part of the study and completed the survey on behalf of their club.

Club representatives from participating clubs provided contact details to the research team for 387 parent and carer participants, of which 336 (87%) could be contacted and

297 completed the survey (response rate 77%). The average number of parent surveys completed per club was 4 (range of 0–12 parents per club).

Table 1 presents the junior football club, club representative, and parent characteristics. The majority of clubs were from a major city. Just over half (52%) of club representatives were male and nearly 70% of parent participants were female. The average age of club representatives was 46 years with a standard deviation of 7. The average age of parents was 43 years with a standard deviation of 6.

Club alcohol and food sponsorship practices and policies

The majority of clubs with junior teams (90%) reported being sponsored by an individual, a business, a company or other organisation. As shown in Table 2, half of the clubs with junior teams (49%) reported being sponsored by the alcohol industry. Most of these sponsors were registered clubs (62%) and the majority of sponsored clubs (80%) reported receiving money as part of their sponsorship deal. One-quarter of clubs with junior teams (27%) reported having a fast food sponsor. The most commonly provided items to clubs by a fast food sponsor were: discounted food/drinks (57%), money (52%) and vouchers (38%).

Sponsorship by club characteristics

As seen in Table 3, club code was significantly associated with alcohol sponsorship in both univariate and multivariate analyses. In multivariate analyses, the odds of alcohol sponsorship among rugby league clubs was 7.4 (95%Cl: 1.8-31.0, p=0.006) that of AFL clubs. No other club characteristics were significantly associated with club's sponsorship by the alcohol industry.

In the univariate analysis, the odds of sponsorship by the fast food industry of smaller clubs was 0.7 (95%Cl: 0.2-1.9, p= 0.04) that of larger clubs. In univariate analyses, the odds of fast food sponsorship among rugby league clubs were lower than AFL clubs, however, this was not statistically significant (OR=0.4; 95%Cl: 0.1-1.1, p=0.07). In multivariate analyses, clubs located in regional areas were more likely than those in major cities to receive fast food industry sponsorship (OR= 9.1; 95%Cl: 1.0-84.0, p=0.05). No other club characteristics were significantly associated with club's sponsorship by the fast food industry.

		n ^a	%
Clubs (n=79)			
Club size	Smaller club (<169 members)	34	52
	Larger club (≥169 members)	32	48
Club code	AFL — Vic	43	54
	Rugby League - NSW	36	46
Geographic location	Major City	71	90
	Inner/outer regional	8	10
Socioeconomic status	More disadvantaged	28	35
	Less disadvantaged	51	65
Club Reps (n=79)			
Sex	Male	41	52
Roles	Committee Member (e.g. President, vice president, secretary, treasurer, other)	73	92
	Coach and Other (e.g. Junior coordinator, misc.)	6	8
Parents (n=297)			
Sex	Female	204	69
Educational Qualifications:	Primary/ Secondary	59	19
	Trade	85	29
	Tertiary	153	52
Gross income per week	\$1,500+	115	41
	\$800-\$1,499	85	30
	<\$800	81	29

Clubs' and parents' perceived club responsibilities to alcohol and fast food industry sponsorship

Table 4 presents the percentage of club representatives and parents who strongly agree or agree with alcohol and fast food industry sponsorship restrictions. The majority (>70%) of club representatives and parents agreed/strongly agreed with each of the items regarding restrictions on alcohol sponsorship. However, most club representatives and parents did not agree that clubs have a responsibility to restrict fast food sponsorship in junior sport, with fewer than half agreeing/strongly agreeing with each of the items related to fast food sponsorship.

Discussion

The findings of this study suggest there is considerable scope to improve unhealthy sponsorship practices of sporting clubs with junior teams. Nearly all sporting clubs with junior members reported being sponsored (90%), with approximately half sponsored by the alcohol industry and just over onequarter sponsored by a fast food chain. The most commonly provided items as part of an alcohol sponsorship deal were money (79%) and venue (23%); whereas, discounted food/drink (57%) and money (52%) were items most commonly provided to clubs that had a fast food chain sponsor. While alcohol sponsorship was more common than fast food sponsorship, the items provided in sponsorship deals suggest that fast food sponsorship items are more visible and prominent to junior members. As similarly reported in other research in this area,²⁰ clubs sponsored by non-food industries such as the alcohol industry were more likely to receive money as part of the deal than clubs sponsored by the food and non-alcohol beverage industry, and less likely to receive other items commonly reported in food sponsorship such as vouchers, discounted food/drink and free food.

There were few associations between club characteristics and club sponsorship practices. Club code was found to be associated with alcohol industry sponsorship. Specifically, rugby league clubs had statistically higher odds of being sponsored by the alcohol industry than AFL clubs. This is consistent with past studies showing that sponsorship of clubs with junior teams

		Club Reps (n=79)		
		n	%	95% CI
Alcohol Industry				
Junior club is sponsored by the alcohol industry (n=79)	Yes	39	49.4	38.1–60.
Type of alcohol sponsor (n=39) ^a	Registered RSL and Services Clubs	24	61.5	45.6-77.
	Hotel/Pub	14	35.9	20.1-51.
	Licensed restaurant/ café	5	12.8	5.6-26.
	Liquor store	2	5.1	1.4-16.
Items provided as part of the alcohol	Money	31	79.5	64.5-89.
sponsorship deal (n=39) ^a	Venue	9	23.1	12.7–38.
	Discounted food	6	15.4	7.3-29.
	Discounted alcohol	4	10.3	4.1-23.
	Vouchers	2	5.1	1.4-16.
	Sporting equipment	3	7.7	2.7-20.
	Other (use of website, meat trays, defibrillators, misc)	4	10.3	4.1–23.
Fast Food Industry				
Junior club is sponsored by the fast food industry (n=79)	Yes	21	26.6	16.6–36.
Items provided as part of food and	Discounted food/drink	12	57.1	34.1-80.
non-alcoholic beverage sponsorship	Money	11	52.4	29.1–75.
deal to clubs that identified having a	Vouchers	8	38.1	15.4-60.
fast food chain sponsor (n=21) ^a	Free food	5	23.8	10.6-45.

Note:

a: Participants could select more than one answer.

Sponsorship Prevalence	Number yes/total (%) [95% CI]	Unadjusted Odds Ratio (95% CI)	p-value ^a	Adjusted ^b Odds ratio (95% CI)	p-value
Alcohol Industry					
Club code (n=79)		6.0 (2.3-16.0)	< 0.001	7.4 (1.8-31.0)	0.006
Rugby League	26/36 (72.2) [57.3-87.2]				
AFL	13/43 (30.2) [16.2-44.3]				
Club size (n=66)		0.5 (0.2-1.4)	0.22	1.8 (0.4-7.8)	0.41
Larger club	13/32 (40.6) [23.2-58.1]				
Smaller club	19/34 (55.9) [38.8-73.0]				
Geographic location (n=79)		1.8 (0.4-8.2)	0.48 ^c	1.6 (0.1-18.2)	0.69
Inner/outer regional	5/8 (62.5) [28.2-96.8]				
Major city	34/71 (47.9) [36.0-59.8]				
Socioeconomic status (n=79)		1.5 (0.6-3.7)	0.43	1.9 (0.5-7.0)	0.35
More disadvantaged	15/27 (55.6) [36.4-74.7]				
Less disadvantaged	24/52 (46.2) [32.3-60.0]				
Fast Food Industry					
Club code (n=79)		0.4 (0.1-1.1)	0.07	0.2 (0.0-1.3)	0.10
Rugby League	6/36 (16.7) [4.2-29.1]				
AFL	15/43 (34.9) [20.3-49.5]				
Club size (n=66)		0.7 (0.2-1.9)	0.04	2.4 (0.6-10.4)	0.24
Larger club	13/32 (40.6) [23.2-58.1]				
Smaller club	6/34 (17.7) [4.5-30.8]				
Geographic location (n=79)		1.8 (0.4-8.1)	0.43	9.1 (1.0-84.0)	0.05
Inner/outer regional	3/8 (37.5) [3.2-71.8]				
Major city	18/71 (25.4) [15.0-35.7]				
Socio economic status (n=79)		1.0 (0.3-2.7)	0.92	1.2 (0.3-5.3)	0.77
More disadvantaged	7/27 (25.9) [9.0-42.8]				
Less disadvantaged	14/52 (26.9) [14.6-39.3]				

Notes:

a: p-value from Chi-squared test unless otherwise stated

b: The model is adjusted for club code, club size, geographic location and socio economic status

c: Due to small cell counts Fisher's exact test is reported instead

Gonzalez et al. Article

vary depending on club code, with rugby league reporting the highest proportion of sponsored clubs when compared to the proportion of sponsored clubs of other popular sports such as soccer, swimming and tennis.²⁰ The findings provide some insights for policy makers and practitioners interested in targeting sporting clubs where exposure of children to fast food or alcohol marketing or promotion practices may be greatest.

Community support for clubs with junior teams to restrict unhealthy sponsorship was mixed. More than three-quarters (77%) of club representatives believed that it was unacceptable for clubs with junior members to receive alcohol-related sponsorship. Similarly, 81% of club representatives believed that it was unacceptable for clubs with junior teams to receive sponsorship from the fast food industry. In contrast, while parents were largely supportive (78%) of clubs restricting the use of alcohol as prizes or awards at junior club events, there was less support for such practices when applied to fast food products (42%). The latter findings are consistent with other research in clubs with junior teams, where greater support for restrictions on alcohol sponsorship than fast food sponsorship have been reported.²⁴ The findings suggest that alcohol is a more salient health issue for parents, which may have been facilitated via multiple policies and initiatives to tackle alcohol sponsorship of sport in Australia that may have raised the profile of this issue.³⁶⁻³⁸ While there is support, there is

still a need to educate club representatives and parents of the harms of alcohol and fast food sponsorship for junior players. Club representatives may have the capacity to enact structural changes within sporting clubs to promote health, and the advocacy and support from parents is important in assisting them to do so. Strategies to address fast food sponsorship of junior sporting clubs, however, may require efforts to garner support from parents than those addressing alcohol use.

Limitations

This study has limitations worth considering. A number of study procedures may limit the generalisability of the study findings. First, while clubs were asked to recruit parents of children at their club randomly (with the most recent birthdays) it is not clear to what extent club representatives adhered to the sampling procedure. Second, all participating clubs were required to have a level 3 Good Sports accreditation, which means that the clubs were actively addressing alcohol use and had implemented a number of alcohol management practices. It could be expected that such clubs with junior members may be less likely to accept alcohol sponsorship and have a membership more supportive of restrictive alcohol policies. If this is the case, then the reported prevalence of alcohol and fast food sponsorship in this study is likely an under-estimate. Bias may have also been introduced if participants felt that

any responses to the survey may put their accreditation with the Good Sports program at risk. Another important limitation is that in including fast food sponsorship only, the study precludes sponsorship from companies that sell or manufacture unhealthy foods. Finally, the study used measures to assess sponsorship that had not previously been validated. More rigorous methods of data collection (e.g. observation and financial record audit) would provide more robust data for future studies.

Conclusion

Notwithstanding the limitations of the study, the findings suggest that unhealthy sponsorship of sports clubs with junior teams is common in NSW and VIC and provides evidence to support action is needed in this area. While clubs frequently cite a range of barriers – including concerns regarding financial viability – to creating environments more supportive of promoting health, research suggests that strategies to promote healthy eating and discourage the promotion of alcohol consumption at sporting clubs may not adversely impact on revenue and may increase club viability through increased membership.³⁹⁻⁴¹ The Healthway Sponsorship Program⁴² in Western Australia provides sponsorship substitution for clubs; it actively encourages sports not to take unhealthy food or alcohol sponsors as a condition of the organisation funding sporting bodies. There is some evidence that the program is acceptable and has been adopted by sports clubs.⁴³ The adoption of similar initiatives by governments in other jurisdictions may be an effective avenue to providing health-promoting sponsorships to sports clubs without the unhealthy exposure of alcohol or fast food brands. Nonetheless, the effectiveness of these programs sustaining a change in sponsorship practices long term is unknown and needs to be assessed.

Acknowledgements

This study was funded by a NIB Foundation Multi-Year Partnership Grant and a Cancer Council NSW Program Grant (PG 16-05). Dr Wolfenden is funded by an NHMRC Career Development Fellowship (APP1128348) and a Heart Foundation Future Leader Fellowship (Award Number 101175). The research team acknowledges the infrastructure funding provided by Hunter New England Population

	n	%	95% CI
Alcohol			
Club representatives			
Sporting clubs have a responsibility to prohibit the display of alcohol branding or logos on junior players or coaches uniforms or apparel.	76	96.2	89.4–98.7
It is acceptable for junior sporting clubs to receive sponsorship from alcohol manufacturers or distributors.	18	22.8	13.3-32.2
Parents			
I believe that alcohol manufacturers or distributors (e.g. brewers, bottle shops, hotels/pubs) should be banned from having their logos on junior team uniforms and apparel of the Junior players at my child's club.	240	80.8	75.5–86.1
I believe that alcohol should not be used as prizes, rewards or in any fundraising by my child's junior club.	232	78.1	73.4–82.9
Fast Food			
Club representatives			
It is acceptable for junior sporting clubs to receive sponsorship from fast food outlets.	15	19.0	11.9–29.0
Sporting clubs have a responsibility to prohibit the use of fast food products or vouchers as prizes, rewards or fundraising by the junior club.	29	36.7	25.8–47.6
Parents			
I believe that fast food products or vouchers should not be used as prizes, rewards or fundraising at my child's junior club.	125	42.1	35.5-48.7

Health, The University of Newcastle, the Hunter Medical Research Institute and the Alcohol and Drug Foundation.

Trial registration and ethics: The trial was approved by the University of Newcastle Human Research Ethics Committee (H-2013-0429) and registered with the Australian New Zealand Clinical Trials Registry (ACTRN12617001044314).

References

- World Health Organization. Global Status Report on Noncommunicable Diseases 2014. Geneva (CHE): WHO; 2014.
- Bagnardi V, Rota M, Botteri E, Tramacere I, Islami F, Fedirko V, et al. Alcohol consumption and site-specific cancer risk: A comprehensive dose–response metaanalysis. Br J Cancer. 2015;112(3):580.
- LoConte NK, Brewster AM, Kaur JS, Merrill JK, Alberg AJ. Alcohol and cancer: A statement of the American Society of Clinical Oncology. JClin Oncol. 2018;36(1):83-93
- Mikkilä V, Räsänen L, Raitakari O, Pietinen P, Viikari J. Longitudinal changes in diet from childhood into adulthood with respect to risk of cardiovascular diseases: The Cardiovascular Risk in Young Finns Study. Eur J Clin Nutr. 2004;58(7):1038-45.
- Grant BF, Dawson DA. Age at onset of alcohol use and its association with DSM-IV alcohol abuse and dependence: Results from the national longitudinal alcohol epidemiologic survey. J Subst Use. 1997;9(Suppl C):103-10.
- Carter MA, Edwards R, Signal L, Hoek J. Availability and marketing of food and beverages to children through sports settings: A systematic review. Public Health Nutr. 2012;15(8):1373-9.
- Anderson P, De Bruijn A, Angus K, Gordon R, Hastings G. Impact of alcohol advertising and media exposure on adolescent alcohol use: A systematic review of longitudinal studies. Alcohol Alcohol. 2009;44(3):229-43.
- Grenard JL, Dent CW, Stacy AW. Exposure to alcohol advertisements and teenage alcohol-related problems. Pediatrics. 2013;131(2):e369-e79.
- Scully M, Wakefield M, Niven P, Chapman K, Crawford D, Pratt IS, et al. Association between food marketing exposure and adolescents' food choices and eating behaviors. Appetite. 2012;58(1):1-5.
- Cairns G, Angus K, Hastings G, Caraher M. Systematic reviews of the evidence on the nature, extent and effects of food marketing to children. A retrospective summary. Appetite. 2013;62:209-15.
- World Health Organization. Global Action Plan for the Prevention and Control of NCDs 2013-2020. Geneva (CHE): WHO; 2013.
- World Health Organization. Set of Recommendations on the Marketing of Foods and Non-alcoholic Beverages to Children. Geneva (CHE): WHO; 2010.
- Australian Sports Commission. AusPlay Summary of Key National Findings - October 2015 to September 2016 Data. Canberra (AUST): Government of Australia: 2016.
- The Aspen Institute. State of Play 2017: Trends and Developments. Aspen (CO): The Institute; 2017.
- Woods C, Tannehill D, Quinlan A, Moyna N, Walsh J. The Children's Sport Participation and Physical Activity Study (CSPPA Study). Research Report No 1. Dublin (IRL): Dublin City University School of Health and Human Performance and The Irish Sports Council: 2010.
- Kelly B, Bauman AE, Baur LA. Population estimates of Australian children's exposure to food and beverage sponsorship of sports clubs. J Sci Med Sport. 2014;17(4):394-8.
- Kelly B, Baur LA, Bauman AE, King L. Tobacco and alcohol sponsorship of sporting events provide insights about how food and beverage sponsorship may affect children's health. Health Promot J Austr. 2011;22(2):91-6.

- Watson WL, Brunner R, Wellard L, Hughes C. Sponsorship of junior sport development programs in Australia. Austr N Z J Public Health. 2016;40(4):326-8.
- Maher A, Wilson N, Signal L, Thomson G. Patterns of sports sponsorship by gambling, alcohol and food companies: An Internet survey. BMC Public Health. 2006;6(1):95.
- Kelly B, Baur LA, Bauman AE, King L, Chapman K, Smith BJ. Food and drink sponsorship of children's sport in Australia: Who pays? Health Promot Int. 2010;26(2):188-95
- 21. Kelly B, Baur LA, Bauman AE, King L, Chapman K, Smith BJ. "Food company sponsors are kind, generous and cool": (Mis)conceptions of junior sports players. *Int J Behav Nutr Phys Act*. 2011;8:95.
- de Bruijn A, Tanghe J, Beccaria F, Bujalski M, Celata C, Gosselt J, et al. Report on the Impact of European Alcohol Marketing Exposure on Youth Alcohol Expectancies and Youth Drinking. Brussels (BEL): Alcohol Measures for Public Health Research Alliance; 2012.
- Sartori A, Stoneham M, Edmunds M. Unhealthy sponsorship in sport: A case study of the AFL. Aust NZ J Public Health. 2018;42(5):474-9.
- Kelly B, Baur LA, Bauman AE, King L, Chapman K, Smith BJ. Restricting unhealthy food sponsorship: Attitudes of the sporting community. *Health Policy*. 2012;104(3):288-95.
- Kelly B, Baur LA, Bauman AE, King L, Chapman K, Smith BJ. Views of children and parents on limiting unhealthy food, drink and alcohol sponsorship of elite and children's sports. *Public Health Nutr.* 2013;16(1):130-5
- Milner S, Sherker S, Clinton-McHarg T, Dray J, Zukowski N, Gonzalez S, et al. Cluster randomised controlled trial of a multicomponent intervention to support the implementation of policies and practices that promote healthier environments at junior sports clubs: Study protocol. BMJ Open. 2018;8(1):e018906.
- Clinton-McHarg T, Gonzalez S, Milner S, Sherker S, Kingsland M, Lecathelinais C, et al. Implementing health policies in Australian junior sports clubs: An RCT. BMC Public Health. 2019;19(1):556.
- Alcohol and Drug Foundation. Good Sports. Melbourne (AUST): ADF: 2016.
- Alcohol and Drug Foundation. Good Sports Level 3. Melbourne (AUST): ADF; 2016.
- Choi BC. Computer assisted telephone interviewing (CATI) for health surveys in public health surveillance: Methodological issues and challenges ahead. Chronic Dis Can. 2004;25(2):21-7.
- Kingsland M, Wolfenden L, Tindall J, Rowland B, Sidey M, McElduff P, et al. Improving the implementation of responsible alcohol management practices by community sporting clubs: A randomised controlled trial. *Drug Alcohol Rev.* 2015;34(4):447-57.
- Kingsland M, Wolfenden L, Tindall J, Rowland BC, Lecathelinais C, Gillham KE, et al. Tackling risky alcohol consumption in sport: A cluster randomised controlled trial of an alcohol management intervention with community football clubs. J Epidemiol Community Health. 2015;69(10):993-9.
- Australian Institute of Health Welfare. 2004 National Drug Strategy Household Survey: Detailed Findings. Canberra (AUST): AIHW; 2005.
- Kelly B, King L, Bauman AE, Baur LA, Macniven R, Chapman K, et al. Identifying important and feasible policies and actions for health at community sports clubs: A consensus-generating approach. J Sci Med Sport. 2014;17(1):61-6.
- Australian Bureau of Statistics. 2033.0.55.001 Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2016. Canberra (AUST): ABS; 2018.
- Australian Department of Health. Preventive Health Good Sports Program. Canberra (AUST): Government of Australia; 2018.
- 37. Foundation for Alcohol Research and Education. *End Alcohol Advertising in Sport Campaign*. Canberra (AUST): The Foundation; 2019.
- The Department of Health. National Binge Drinking Strategy. Canberra (AUST): Government of Australia; 2013.

- Rowland B, Kingsland M, Wolfenden L, Murphy A, Gillham KE, Fuller-Tyszkiewicz M, et al. The impact of an alcohol consumption intervention in community sports clubs on safety and participation: An RCT. Aust NZJ Public Health. 2019;43(2):114-19.
- Wolfenden L, Kingsland M, Rowland B, Dodds P, Sidey M, Sherker S, et al. The impact of alcohol management practices on sports club membership and revenue. Health Promot J Austr. 2016;27(2):159-61.
- Wolfenden L, Kingsland M, Rowland BC, Dodds P, Gillham K, Yoong SL, et al. Improving availability, promotion and purchase of fruit and vegetable and non sugar-sweetened drink products at community sporting clubs: A randomised trial. Int J Behav Nutr Phys Act. 2015;12(1):35.
- 42. Healthway. *Sponsorship*. Subiaco (AUST): State Government of Western Australia; 2016
- 43. Healthway. 2017-2018 Annual Report Full. Subiaco (AUST): State Government of Western Australia; 2018.