

RESEARCH ARTICLE

Alcohol Advertising at the Beach: Insights From Young People in Western Australia

Renee N. Carey¹  | Gemma Crawford¹  | Nicola D'Orazio¹  | Gina S. A. Trapp^{2,3,4}  | Lauren Nimmo⁵  | Tina Lam⁶  | Jonine Jancey¹  | Justine E. Leavy¹ 

¹Collaboration for Evidence Research and Impact in Public Health, School of Population Health, Curtin University, Bentley, Western Australia, Australia | ²Nutrition and Health Innovation Research Institute, School of Medical and Health Science, Edith Cowan University, Joondalup, Western Australia, Australia | ³The Kids Research Institute, The University of Western Australia, Crawley, Western Australia, Australia | ⁴School of Medicine, The University of Western Australia, Crawley, Western Australia, Australia | ⁵Research, Media and Communications, Royal Life Saving Society Western Australia, Perth, Western Australia, Australia | ⁶Monash Addiction Research Centre, Monash University, Melbourne, Victoria, Australia

Correspondence: Renee N. Carey (renee.carey@curtin.edu.au)

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ABSTRACT

Background: Advertising and marketing by the alcohol industry serve to normalise alcohol use, with exposure to alcohol advertising linked to earlier and riskier drinking among young people. Advertising that portrays alcohol use in and around waterways is of particular concern, with one in five fatal drownings being associated with alcohol.

Objective: This study aimed to explore the types of alcohol advertising that young people were exposed to, and to determine whether exposure to alcohol advertising was related to their alcohol use in aquatic environments.

Methods: We surveyed 102 young people aged 18 to 25 years attending a free event at a coastal location in Perth, Western Australia. Questions addressed demographics; participation in aquatic activities; alcohol use around water; recall of alcohol advertising; and social media engagement.

Results: Most participants recalled seeing alcohol advertisements often ($n = 71$, 69.6%) and had engaged with alcohol brands or products on social media, including viewing alcohol company-sponsored events ($n = 66$, 64.7%) and liking alcohol brand posts ($n = 48$, 47.1%). Sixty participants (58.5%) had consumed alcohol before or while participating in an aquatic activity in the past year. This behaviour was more common among those who reported higher engagement with alcohol brands on social media and a higher frequency of alcohol advertising recall.

Conclusions: These findings highlight the role of alcohol industry marketing in normalising alcohol use among young people. Our findings reinforce the need for advocacy and comprehensive marketing restrictions to counteract alcohol industry practices and reduce the risks associated with pervasive alcohol advertising within aquatic environments.

1 | Introduction

The commercial determinants of health (CDoH), specifically commercial activities and corporate interests, are a key focus for health promotion action [1]. In particular, attention has been directed toward how these commercial determinants may exacerbate poor health and social outcomes for certain population groups, including young people [2]. Commercial actors may exert their influence on health through strategies including marketing and advertising, lobbying against policy changes, corporate social responsibility measures and establishing large global supply chains and networks [1]. These strategies and activities shape the social environments where young people live, work and play, influencing the availability, desirability and affordability of (generally unhealthy) products.

The alcohol industry in particular uses a variety of strategies to support its commercial interests and challenge effective regulation [3]. For example, a large and growing body of evidence demonstrates the increasingly globally consolidated alcohol industry's attempts to influence public health policymaking [3, 4]. The alcohol industry also regularly employs corporate social responsibility techniques, funding Social Aspects/Public Relations Organisations (SAPRO) such as DrinkWise and promoting a narrative of 'responsible drinking' and 'alcohol misuse' [4]. This includes youth education programs funded by the alcohol industry that have been found to promote the normalisation of alcohol as a product that young people must learn to use responsibly (highlighting the role of 'personal responsibility' over the structural regulation of supply) [5]. Advertising and marketing by the alcohol industry also serve to normalise alcohol use, creating beliefs that drinking is inevitable or expected [6].

The proliferation of alcohol advertising and marketing has been found to influence behaviour and social norms around alcohol use, contributing to the development of an alcogenic environment—environments that normalise alcohol consumption [7, 8]. Recent systematic reviews have found that exposure to alcohol advertising among young people is associated with their alcohol use behaviours [9] and positive perceptions of the effects of alcohol [10]. Furthermore, interacting with brands on social media, including through liking, sharing or commenting on posts, has been shown to be positively associated with alcohol use among adolescents and young adults [11]. Alcohol advertising has been found to appeal to young people [10], with content emphasising lifestyle and the 'value' of drinking generally seen to be more appealing than those emphasising product quality or features [10]. These lifestyle appeals are an important aspect of the alcogenic environment, establishing positive perceptions and social norms around alcohol consumption [12]. Such advertisements portray alcohol as contributing to social success, relaxation and fun, often in visually appealing settings such as beaches and other waterways [13].

The portrayal of alcohol use in aquatic environments is particularly problematic given the strong links between alcohol use and water-related injury, especially among young people [8]. Alcohol advertising frequently promotes the use of alcohol in and around water, contributing to the development of an aquatic alcogenic environment [14]. This normalises the use of alcohol in aquatic environments and leads to positive perceptions of this behaviour

[7], with a study of young Australian males reporting that many believed that drinking alcohol around water would be fun and would increase relaxation [15]. The aquatic alcogenic environment is particularly relevant to the Australian context, with many factors including the extensive coastline, warm climate and popularity of aquatic activities combining with the widely accepted nature of alcohol consumption in Australian culture [16]. A recent review of predominantly Australian studies found that young adults view alcohol use in and around water as a typical behaviour, and that many underestimated the risks of drinking in aquatic environments [17]. This review also highlighted the dearth of research investigating how alcohol advertising and other commercial interests may impact upon the use of alcohol, and alcohol-related harms, in aquatic environments.

The current study addressed two related research questions. First, it aimed to explore the types of alcohol advertising that young people recall being exposed to and their perceptions of this advertising. Second, this study aimed to determine whether exposure to and perceptions of alcohol advertising were related to young people's use of alcohol around water.

2 | Methods

2.1 | Study Design

This study used a cross-sectional survey design. The survey was conducted over a four-week period in February and March 2024.

2.2 | Participants and Sampling

A convenience sample of young adults who were attending a free event at a coastal location in the Perth metropolitan area was surveyed. Eligible participants were Australian residents aged between 18 and 25 years. Potential participants were approached by one of seven trained research assistants who explained the purpose of the study, confirmed their eligibility and asked them to complete a ten-minute survey. To reimburse them for their time, participants were provided with a \$10 Uber voucher on completion of the survey.

2.3 | Ethical Considerations

Ethics approval was obtained from the Curtin University Human Research Ethics Committee (approval number HRE2022-0609). No identifying information was collected from participants and so responses cannot be linked to any individual. All participants indicated their consent to participate via a tick-box on the first page of the electronic survey.

2.4 | Procedure

To collect data, an electronic survey was loaded on tablet devices using the Qualtrics Offline Survey application.

The survey questions were informed by previous stages of the research project, including a scoping review of the literature on

young adults' alcohol use in and around water [17], an audit of alcohol advertising in coastal locations around the Perth metropolitan area [18] and a content analysis of the public Instagram profiles of five alcohol brands [19]. Supplementary feedback was provided by the study's Young People Advisory Group, comprising young people aged 18 to 24 who expressed an interest in public health advocacy, and Research Collaborative members, representatives of key organisations working with young people across alcohol and other drugs, drowning and/or injury prevention. Feedback was used to refine the survey instrument and inform data collection methods including recruitment and potential incentives. The full survey instrument is available as [Supporting Information](#).

2.5 | Survey Measures

2.5.1 | Demographics

Demographic information comprised age, residential status (Australian resident or tourist), gender (based on the Australian Bureau of Statistics standard question [20]), language spoken and highest level of education (adapted from Hamilton and colleagues [21]).

2.5.2 | Participation in Aquatic Activities

Participants were asked to indicate how often they participated in aquatic or water-based activities such as swimming, surfing or visiting the beach, using a five-point scale ranging from Never to Very often (at least once a week).

2.5.3 | Alcohol Use Around Water

A single dichotomous question addressed whether participants had consumed alcohol before or while participating in an aquatic activity in the last 12 months (hereafter referred to as 'drinking and swimming'). A don't know option was also provided.

2.5.4 | Recall of Alcohol Advertising

A series of questions was then used to assess alcohol advertising recall and engagement with alcohol brands and products on social media. Participants were asked to use a five-point scale ranging from *Never* to *Always (daily or almost daily)* to indicate how frequently they saw advertisements of three types: (a) any advertisements promoting alcohol; (b) alcohol advertisements situated in aquatic locations; and (c) alcohol advertisements featuring aquatic activities. A 'don't know' option was also provided. Those who indicated seeing such advertisements at any frequency were then asked, for each advertising type, which of six possible forms those advertisements took. Response options included *billboards and other outdoor advertising*, *digital media such as television and streaming services* and *online such as websites and social media*. In order to capture unprompted

recall of alcohol advertising, a free-text box was also provided for participants to indicate which brands they saw advertised most often.

Questions addressing engagement with alcohol brands or products on social media were adapted from Jones and colleagues, allowing for the comparison of our findings with those of previous studies [22]. Participants were asked to select all the actions they had taken on social media from a list of seven possible options, including *liking something posted by an alcohol brand or product on social media*, *clicking on a link from social media to an alcohol website* and *sharing something posted by an alcohol brand, product or company on social media*. This scale demonstrated moderate internal reliability in this sample (Cronbach's $\alpha = 0.65$).

2.5.5 | Perceptions of Alcohol Advertising

Finally, participants were asked a series of questions to ascertain their perceptions of alcohol advertising. A single question adapted from Weaver and colleagues [13] asked participants, '*Do you think that some alcohol advertising by alcohol companies suggests that alcohol may...*' followed by seven key messages including *improve your mood*, *help you to feel more confident* and *lead to success at work*. Participants were able to select all statements they agreed with, or alternatively *none of the above*. These key messages align with themes in advertising guidelines set out by the Alcohol Beverages Advertising Code (ABAC) (e.g., Section 3c which deals with the responsible depiction of the effects of alcohol) [23]. This scale demonstrated moderate internal reliability in the current study (Cronbach's $\alpha = 0.70$).

Participants were also asked to use a scale ranging from 0 (*not at all*) to 10 (*to a great extent*) to indicate their agreement with three further statements related to the role of alcohol advertising. Specifically, these statements asked participants to *rate how much they thought that alcohol advertising influences young adults' alcohol use around water*; *whether they thought that alcohol advertising at events around water encouraged drinking*; and *whether they thought that alcohol advertising normalises the use of alcohol in and around water*. This scale demonstrated adequate internal reliability in this sample (Cronbach's $\alpha = 0.76$).

2.6 | Data Analysis

All analyses were conducted using IBM SPSS (Version 19).

First, descriptive and frequency analyses were used to summarise the data. A series of bivariate analyses were then conducted to explore how the behaviour of 'drinking and swimming' differed by the various demographic and alcohol advertising variables. Pearson's Chi-squared tests and independent samples t-tests were used to determine associations, and a p value of < 0.05 was considered statistically significant.

Finally, multivariate logistic regression models were used to explore the predictors of drinking and swimming. All variables

significant at the bivariate level were entered into the model and non-significant predictors were then removed in a stepwise fashion. Associations between predictor variables and the behaviour of drinking and swimming were assessed using odds ratios (ORs) and 95% confidence intervals (CIs).

3 | Results

3.1 | Demographics

In total, 102 young people completed the survey. As shown in Table 1, the majority identified as female, were from an English-speaking background, and had attended high school as their highest level of education. The mean age of participants was 20.8 (SD = 2.24).

Almost half (49.0%) indicated that they participated in aquatic activities very often (at least once a week), while 21.6% participated 'once or twice a month', and a further 21.6% participated 'a couple of times per year' (Table 1). Only 7.8% indicated they participated in aquatic activities 'never or rarely'. A total of 60 participants (58.8%) indicated that they had consumed an alcoholic drink

before or while participating in an aquatic activity in the past year (i.e., participated in the behaviour of 'drinking and swimming').

3.2 | 'Drinking and Swimming' by Demographic Characteristics

As shown in Table 1, those who reported 'drinking and swimming' had a significantly lower mean age. Males and those who had completed primary or high school as their highest level of education were also significantly more likely to report drinking and swimming. There were no significant differences in drinking and swimming by language or frequency of participation in aquatic activities.

3.3 | Recall of Alcohol Advertising

Most participants indicated seeing advertisements promoting alcohol 'often' ($n = 39$, 38.2%) or 'sometimes' ($n = 32$, 31.4%). A total of 17 participants (16.7%) indicated that they saw alcohol advertisements 'daily or almost daily', while 14 (13.7%) saw advertisements 'never or rarely'. Alcohol advertisements were most often

TABLE 1 | Demographic profile of intercept survey participants ($n = 102$) and association with behaviour of 'drinking and swimming' in the last year.

Demographic characteristic	Total n (%)	'Drinking and swimming' in last year ^a		p value
		Yes	No/DK	
	102 (100.0)	60 (58.8)	42 (41.2)	
Age, mean (SD)	20.8 (2.2)	20.4 (2.2)	21.4 (2.2)	0.033 ^c
Gender ^b				0.021 ^d
Male	29 (29.0)	22 (75.9)	7 (24.1)	
Female	71 (71.0)	36 (50.7)	35 (49.3)	
English-speaking background				0.745 ^d
Yes	76 (74.5)	44 (57.9)	32 (42.1)	
No	26 (25.5)	16 (61.5)	10 (41.2)	
Highest level of education				0.014 ^d
Primary or high school	56 (54.9)	40 (71.4)	16 (28.6)	
Trade certificate or diploma	16 (15.7)	8 (50.0)	8 (50.0)	
Undergraduate degree	30 (29.4)	12 (40.0)	18 (60.0)	
Frequency of participation in aquatic activities				0.408 ^d
Never or rarely (less than once a year)	8 (7.8)	3 (37.5)	5 (62.5)	
Sometimes (a couple of times per year)	22 (21.6)	12 (54.5)	10 (45.5)	
Often (once or twice a month)	22 (21.6)	12 (54.5)	10 (45.5)	
Very often (at least once a week)	50 (49.0)	33 (66.0)	17 (34.0)	

Abbreviations: DK: don't know; SD: standard deviation.

^aThose answering 'don't know' ($n = 3$) have been combined with those answering 'no' for analysis.

^bOther options were provided; however, participants identified as male or female only. Two participants did not provide an answer to this question and were excluded from the analysis.

^c p value derived from independent samples t -test.

^d p value derived from Chi-squared test.

seen on digital media such as television and streaming services ($n = 61$, 59.8%), online including on social media ($n = 53$, 52.0%) and on billboards and other outdoor advertising ($n = 39$, 38.2%). Participants recalled seeing alcohol advertising in two different forms on average ($SD = 2.28$). The most frequent brands participants recalled seeing advertised were Corona (11.8%), Heineken (9.8%), Gage Roads (a Western Australian beer brand; 6.9%) and Smirnoff (5.9%).

Alcohol advertisements positioned in aquatic locations, including around the beach, pool or river, were most often reported as being seen 'sometimes' ($n = 37$, 36.3%) or 'rarely' ($n = 35$, 34.3%). These advertisements were most often seen on billboards and other outdoor advertising ($n = 35$, 34.3%) and as sponsorships of events and/or sports teams ($n = 18$, 17.6%).

Alcohol advertisements that specifically featured aquatic activities including swimming, surfing, relaxing at the beach or fishing were most often reported as being seen 'rarely' ($n = 42$, 42.0%) or 'sometimes' ($n = 31$, 31.0%). Thirteen participants (13.0%) reported never seeing such advertisements, while 14 (14.0%) reported seeing them 'once or twice a week'. Alcohol advertisements featuring aquatic activities were most often seen on digital media (e.g., television and streaming; $n = 32$, 31.4%), online including on social media ($n = 26$, 25.5%) and on outdoor advertising ($n = 20$, 19.6%).

Chi-squared analyses revealed no significant associations between the frequency of recall of advertisements promoting alcohol and participation in 'drinking and swimming' ($\chi^2(3) = 7.64$, $p = 0.054$).

3.4 | Social Media Engagement

Two-thirds of participants ($n = 66$, 64.7%) reported viewing an event created or sponsored by an alcohol company on social media. In addition, around half ($n = 48$, 47.1%) had liked something posted by an alcohol brand on social media, one-third ($n = 33$, 32.4%) had clicked on a link from social media to an alcohol website and one in six ($n = 17$, 16.7%) had participated in a contest or competition about alcohol products. One in five ($n = 19$, 18.6%) reported not having engaged with alcohol brands or products on social media in any way. On average, participants reported engaging with alcohol brands or products on social media in 2 ($SD = 1.58$) different ways. Those who reported engaging with brands in more ways were more likely to report having participated in 'drinking and swimming' in the past year ($t(100) = 3.04$, $p = 0.002$).

3.5 | Perceptions of Alcohol Advertising

Participants reported varying levels of agreement with statements related to the portrayed positive effects of alcohol in advertising. Many participants agreed that alcohol advertising suggested that alcohol may make them feel more social and outgoing ($n = 66$, 64.7%), more relaxed ($n = 48$, 47.1%) and more confident ($n = 45$, 44.1%). However, very few agreed that alcohol advertising suggested that alcohol may lead to sporting success ($n = 5$, 4.9%) or success at work ($n = 2$, 2.0%). On average,

participants agreed with 2.19 ($SD = 1.72$) statements related to the positive effects of alcohol advertising. There was no significant association between the number of statements participants agreed with and their participation in 'drinking and swimming' ($t(100) = 0.96$, $p = 0.462$).

Participants indicated a moderate level of agreement with statements relating to the role of alcohol advertising around waterways in encouraging drinking (mean = 5.96, $SD = 2.76$), normalising alcohol use around water (mean = 5.05, $SD = 2.72$) and influencing young people's alcohol use around water (mean = 4.96, $SD = 2.40$). There were no significant differences in participation in 'drinking and swimming' by level of agreement with any of the statements: encouraging drinking ($t(94) = -1.26$, $p = 0.106$); normalising alcohol use around water ($t(94) = -0.90$, $p = 0.185$); or influencing alcohol use around water ($t(92) = 0.03$, $p = 0.487$).

3.6 | Variables Associated With 'Drinking and Swimming'

Multivariate logistic regression was used to explore the variables associated with participating in 'drinking and swimming'. Age, gender, highest level of education, social media engagement and frequency of recall of alcohol advertising were entered at the first step and non-significant predictors were removed in a stepwise fashion. The final model explained 28.1% (Nagelkerke R^2) of the variance in 'drinking and swimming' and correctly classified 68.6% of cases. As shown in Table 2, those with a higher level of education were less likely to report 'drinking and swimming', while greater social media engagement and higher frequency of recall of alcohol advertising were associated with a greater likelihood of reporting 'drinking and swimming'.

4 | Discussion

This study explored the types of alcohol advertising that young people recall being exposed to and whether exposure to and perceptions of alcohol advertising were related to their use of alcohol around water. These insights from young people were collected at a coastal event, an environment where individuals are likely to be exposed to alcohol advertising and an ideal and convenient location to capture these perceptions and reported behaviours. Findings show that a substantial proportion of young people reported consuming alcohol before or while participating in aquatic activities (referred to as 'drinking and swimming') over the past year. This behaviour was more common among those who more frequently recalled seeing alcohol advertising and engaging with alcohol brands and products on social media. Recall of alcohol advertising was relatively high, with over half of participants seeing alcohol advertisements at least once a week and one in six seeing them daily.

Consistent with past research [14, 16, 24], more than half of the study's young people indicated they had participated in 'drinking and swimming' in the last year. This behaviour was found to be three times more likely among males than females, although this difference was no longer significant when controlling for

TABLE 2 | Variables associated with participation in 'drinking and swimming' in the past year.

	OR, 95% CI	aOR ^a , 95% CI
Age	0.82*, 0.69–0.99	—
Gender		
Female	1.00	—
Male	3.06*, 1.16–8.06	—
Highest level of education		
Primary or high school	1.00	1.00
Trade certificate or diploma	0.40, 0.13–1.25	0.26*, 0.07–0.89
Undergraduate degree	0.27*, 0.11–0.68	0.21*, 0.04–0.59
Forms of social media engagement	1.56*, 1.14–2.14	1.62*, 1.13–2.32
Frequency of recall of advertising	1.66*, 1.06–2.60	1.77*, 1.07–2.94

Note: Significant results indicated by **bold** font and asterisk*.

Abbreviations: aOR: adjusted odds ratio; CI: confidence interval; OR: odds ratio.

^aAdjusted for the highest level of education, social media engagement and frequency of recall of advertising.

other variables such as education and exposure to alcohol advertising. This is consistent with drowning statistics, with more than three-quarters of all drowning deaths in young people in Australia in the 2023/24 financial year being among males [25]. Past research has also shown that young males are more likely to underestimate the risks of alcohol use in and around water and to participate in other activities that may elevate their risk for injury and drowning, including swimming unsupervised and in prohibited places [26]. This lowered perception of overall risk, paired with risk-taking behaviours in and around water, contributes to males being more likely to drown than females. However, recent Australian research has found that females also engage in these behaviours and activities in aquatic locations, similar to males, especially when drinking around waterways [14, 27]. Going forward, drowning prevention efforts should consider targeting young people more broadly, not just males, to prevent drinking and swimming in aquatic locations. This could involve using effective advertising devices [28] such as highly stylised imagery of young people having fun with peers in these spaces without the presence of alcohol.

While young men generally engage in greater risk-taking than young women [29], an additional reason for the higher prevalence of alcohol use in and around waterways among males might be their higher levels of perceived familiarity with the aquatic context [8], and that, more generally, greater familiarity leads to more risky behaviours around water [30]. While the current study did not find that the frequency of 'drinking and swimming' varied by frequency of participation in aquatic activities, it may be that the young people surveyed perceived themselves as proficient in and around water regardless of their level of objective familiarity with water and aquatic activities. Previous research has found that young people tend to overestimate their aquatic abilities, particularly after consuming alcohol [30], and believe that they have sufficient swimming ability to negate the associated risks [16]. However, due to the nature of this study's data collection methods and time constraints, we were unable to delve further into the nuances of this behaviour, including risk perception and perceived swimming ability.

The current study also found alcohol advertising and engagement with alcohol brands and products on social media to be associated with 'drinking and swimming', highlighting the importance of the CDoH in norms and practices related to alcohol use and contributing to the alcogenic environment [9]. This finding is reinforced by recent Australian research with young people that showed social media marketing of unhealthy products such as alcohol was particularly influential [2]. Over half of our participants reported seeing alcohol advertisements at least once a week, most often on digital media (such as television and streaming services), online (including on social media) and on billboards and other outdoor advertising. Previous research has found that exposure to alcohol advertising across a variety of media types is associated with positive perceptions of alcohol [10] and increased alcohol use in young people [9]. Outdoor advertising may be of particular concern, as exposure may be almost ubiquitous, leading to the normalisation of alcohol use and supporting the creation of alcogenic environments [31]. This suggests the need for expanded restrictions and regulations around alcohol advertising on public assets, similar to that instituted in some local government areas in Western Australia [32].

Exposure to advertising content on social media is also ubiquitous, able to be viewed at all times of day and from any location [33]. Engagement with alcohol marketing on social media, including through liking or sharing posts, has been consistently found to be associated with alcohol use among young people [11]. Seeing peers like or share alcohol-related content can blur the lines between commercial and user-generated content, such that young people may not view alcohol-related content on social media as marketing. Unlike traditional advertisements in media such as television or magazines—where the advertisements are clearly separate from the main content, appearing in distinct time slots or on different pages—alcohol advertising on social media is often embedded within content itself. This form of advertising frequently lacks explicit advertising cues, instead relying on subtle techniques such as product placement or promotion by influencers, making it more difficult for young people to recognise posts as advertising material [33]. This means that

social media marketing is often more impactful than traditional advertising, particularly when it is shared or liked by peers, as this may be taken as an indication of peer endorsement of the content [34]. As reported in previous research, public support for government health interventions varies inversely with their intrusiveness—while less invasive measures gain broader acceptance, they typically yield weaker outcomes [35]. Accordingly, more comprehensive restrictions around social media and other online advertising of alcohol are therefore needed, rather than the current self-regulatory approach [36], similar to those called for in relation to unhealthy food products [37] and e-cigarettes [38].

Social media content may also be more likely to use ‘content appealing to youth’, including animation, humour and the depiction of rewards, especially social rewards [39]. Previous research has found that alcohol advertising on social media, as well as in other forms, frequently invokes themes of social success and mood improvement [10, 13]. These themes are particularly pertinent for young people who are attempting to establish and strengthen social relationships, as well as dealing with new stresses as they progress into adulthood [13]. Many of the young adults surveyed in the current study agreed that alcohol advertising typically portrays alcohol as leading to an increase in confidence, sociability and relaxation. This is in direct contravention of the responsible alcohol marketing guidelines set by the Alcohol Beverages Advertising Code (ABAC) in Australia, which state that alcohol advertisements must not ‘suggest that the consumption or presence of alcohol may cause or contribute to an improvement in mood or environment’ or ‘show... the consumption or presence of alcohol as a cause of or contributing to the achievement of ... social... success’ [23]. The inadequacy of these guidelines and current regulations around alcohol advertising has been highlighted by public health advocates and researchers, with many calling for an independent, mandatory and enforceable regulatory system alongside other evidence-based alcohol policies [40, 41]. Such an independent regulatory body could help prevent the conflicts of interest within the current industry-regulated guidelines and allow for the input of public health and health promotion practitioners and researchers to be considered.

Finally, the normalisation of alcohol consumption among young people, driven in large part by alcohol industry marketing and reinforced through prevailing social norms [6], has significant implications for risk-taking in aquatic and recreational settings. Our findings are consistent with emerging literature showing that alcohol consumption is often socially constructed as a gateway to confidence and belonging [42], with alcohol advertising exploiting this by embedding drinking into sporting contexts, leisure activities and social rituals [43]. This process strengthens perceptions that alcohol is a natural and desirable part of aquatic recreational activities [44], thereby heightening the risk of unsafe use in and around waterways. Marketing strategies now extend beyond commercial advertising tactics, encompassing various promotional and public relations approaches, including traditional media, social media and online platforms, as well as more sophisticated means such as sponsorship and branded merchandise [41]. Participants in two recent qualitative surveys of Australian children and young people commented that alcohol marketing was unavoidable in their everyday environments,

and that this exposure had a direct impact on their attitudes and behaviours [2, 45]. Exposure is extensive across media, sponsorships and branded merchandise, with young adults seeing up to seven online alcohol ads per day [46]. These findings underscore the need for stronger policy and regulatory action to counter alcohol industry practices that exploit social norms and increase the normalisation of alcohol consumption around waterways.

5 | Limitations and Strengths

Some limitations are to be noted. Common to survey research, our participants were predominantly female and from an English-speaking background [47], and so may not be representative of the target population. Data were collected at a single metropolitan location, meaning that important variations by geographic location may have been missed. The study site was a popular tourist destination, characterised by residents with relatively higher socioeconomic status and a younger median age compared to the general Western Australian population. This is also an area which we have found in our previous research to have a moderate density of alcohol advertising (18.5 alcohol advertisements per hectare), including advertisements featuring water and aquatic activities [18].

Data collection at this beachside location enabled us to recruit a sample with frequent exposure to aquatic environments, with nearly three-quarters of participants reporting participating in aquatic activities at least once a month. While this allowed us to access individuals who were potentially at higher risk of aquatic-related harms, the limited variation in the frequency of aquatic activity participation may have constrained our ability to detect statistically significant differences in the reporting of ‘drinking and swimming’ by frequency of participation. It may be that different results would be observed with a population less likely to participate in aquatic activities and/or with more varied aquatic experience. Due to the nature of data collection (an in-person intercept survey) and time constraints, we did not collect information on other variables that may influence the likelihood of ‘drinking and swimming’, including perceiving swimming ability, peer influence and risk perception. However, the prevalence of ‘drinking and swimming’ we observed is similar to that found in other studies [16, 24].

In a time where online data collection has become the dominant research method, intercept data collection remains a valuable and often underutilised approach in contemporary public health research. This method, which involves engaging participants in person at specific locations [48], was a particular strength of this study. While the final sample size was relatively small, intercept data collection facilitated greater access to young people and collecting data at the point of experience, on this occasion at an event at a coastal location, allowed researchers to capture immediate reactions and behaviours rather than relying on retrospective accounts [48].

6 | Conclusion

This study found that a substantial proportion of young people report consuming alcohol before or while participating in

activities in and around waterways, and that this behaviour is linked to exposure to alcohol advertising and engagement with alcohol brands and products on social media. These findings support the call for more robust, evidence-based and comprehensive regulations around alcohol advertising, including on social media, to mitigate the risks associated with the alcogenic and increasingly the aquatic alcogenic environment.

Author Contributions

All authors contributed to the study conception and/or design. Data collection and analysis were performed by Renee N. Carey and Nicola D'Orazio. The first draft of the manuscript was written by Renee N. Carey and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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Ethics Statement

This study received ethics approval from the Curtin University Human Research Ethics Committee (approval number HRE2022-0609). All participants provided informed consent.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section. **Data S1:** hpja-sup-0001-Supinfo.docx.