

# “They start on the zero-alcohol and they wanna try the real thing”: Parents' views on zero-alcohol beverages and their use by adolescents

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## Abstract

**Objective:** Zero-alcohol beverages containing 0.0–0.5% alcohol by volume may offer public health benefits if individuals use them to substitute for alcohol-containing products, thereby reducing alcohol use. There are, however, concerns that zero-alcohol beverages may encourage adolescents' earlier interest in alcohol and increase exposure to alcohol company branding. As this poses a challenge for parents, we studied parents' views on zero-alcohol beverages and their provision to adolescents.

**Methods:** We interviewed n=38 parents of 12–17-year-olds and used reflexive thematic analysis to interpret interview data.

**Results:** Parents considered zero-alcohol beverages to be 'adult beverages' that potentially supported reduced adult drinking but were unnecessary for adolescents. Parents were concerned that adolescent zero-alcohol beverage use could normalise alcohol consumption and be a precursor to alcohol initiation. There was a potential conflict between moderate provision in 'appropriate' contexts, and potential benefits, which were each supported by some parents. Uncertainty on health qualities was also reported.

**Conclusions:** Parents reported conflicting and cautious views on zero-alcohol beverage provision to adolescents.

**Implications for Public Health:** As evidence on the impacts of zero-alcohol beverage availability develops, parent-targeted messages highlighting the potential risk of normalisation of alcohol use for young people could be developed, in conjunction with broader policy responses.

**Key words:** zero-alcohol beverages, NoLo, parents, adolescent health, qualitative research

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## Introduction

Zero-alcohol beverages contain no or very low amounts of alcohol (in Australia, 0.0–0.5% alcohol by volume [ABV]) but share the appearance and taste of alcohol-containing beverages.<sup>1</sup> Zero-alcohol beverages can be purchased and consumed by adolescents, as they are not subject to liquor legislation, and are treated similarly to soft drinks under Food Standards Australia New Zealand Code 2.6.2.<sup>2</sup> Central to the benefits hypothesised from more widespread zero-alcohol beverage availability is the potential for established alcohol users to replace alcohol consumption.<sup>3</sup> A recent realist review of lower-strength (including zero-) alcohol products appeared to support this hypothesis and suggested that for those who were *already* drinking alcohol, zero-alcohol beverages in part substituted higher-strength alcohol to reduce overall alcohol consumption.<sup>4</sup> While most research has been conducted with adults to date, this could also hold true for adolescents: increased zero-alcohol beverage availability could offer benefits to adolescents who are already using alcohol,<sup>5</sup> and who are particularly vulnerable to alcohol-related harms.<sup>6</sup> In a large study of high school students in Japan, most students started to drink zero-alcohol beverages after initiating alcohol use.<sup>7</sup> However, zero-alcohol beverages may also be used by adolescents to delay alcohol initiation or limit consumption when facing peer pressure and social norms to drink. Non-drinking adults support having attractive non-alcoholic beverage options available in contexts where alcohol consumption is normative<sup>8</sup> and report consuming non-alcoholic beverages that look like alcohol to overcome pressure to drink.<sup>9</sup>

Given that limited evidence on the impacts of zero-alcohol beverage availability and consumption has been published, experts have advocated for adoption of the precautionary principle.<sup>10</sup> They suggest that zero-alcohol products may *encourage* young people's earlier interest in alcohol use<sup>11,12</sup> or accelerate alcohol initiation as "gateway" drinks.<sup>3,12</sup> For example, zero-alcohol products may lower the "threshold" required for non-drinkers to initiate alcohol use, particularly where alcohol currently has low acceptability for social or cultural reasons.<sup>13</sup> The development of zero-alcohol products could increase alcohol industry sales among young people,<sup>13,14</sup> in light of declining adolescent alcohol consumption over the past two decades,<sup>15</sup> and as alcohol consumption has become increasingly denormalised (and non-drinking normalised) among adolescents.<sup>16</sup> The near-identical appearance of zero-alcohol beverages and alcohol branding could potentially re-normalise the apparent consumption of alcohol, including in settings where alcohol was not previously available.<sup>3</sup> Current marketing practices appear consistent with brand extension, where an existing brand name is applied to similar consumer products in different market categories.<sup>17</sup> Internationally, young people's exposure to alcohol company branding on non-alcoholic products increased alcohol brand recognition<sup>18</sup> and familiarity,<sup>19</sup> indicating that alcohol purchase is being encouraged in contexts where alcoholic products may not be sold. For example, non-alcoholic beer was previously promoted in Poland, where all advertising of alcoholic beverages was banned until 2001, with similar containers to the manufacturers' alcoholic beers.<sup>20</sup> Similarly, some alcohol brands now promote zero-alcohol beverages in ways that repeatedly expose young people to the imagery and slogans of alcohol-containing products,<sup>21</sup> including by circumventing existing controls on alcohol marketing such as for public transport

infrastructure.<sup>22</sup> Social media promotions of zero-alcohol beverages with a high degree of similarity to alcoholic beverages are also likely to be relevant for adolescents, given the high rates of social media use among this age group. Alcohol-related social media content often remains accessible for young people: inconsistent adherence to guidance from the voluntary industry-led advertising code and inconsistent application of age-based access policies have been documented in Australia.<sup>23,24</sup> Recent reports also show that zero-alcohol product advertisements across social, print, and broadcast media have included product depictions in settings where alcohol consumption is not normative (e.g., whilst working, exercising, or driving)<sup>3,25</sup> and suggest relatively high user engagement with zero-alcohol posts.<sup>26</sup>

This context also poses a challenge for parents, who play a central role in influencing beverage use for adolescents. Parental alcohol provision is already widespread; Australian population surveys show that adolescents who drink alcohol identify parents as their most common single source of alcohol.<sup>27,28</sup> Given that zero-alcohol beverages are allowed to be sold widely, including to adolescents, Miller et al. hypothesised that parents would likely trust zero-alcohol beverages to be acceptable and less harmful to health than alcohol-containing equivalents.<sup>3</sup> Exploratory research on zero-alcohol beverage use among these key population subgroups is recognised as an international priority,<sup>29</sup> but parents' acceptance or facilitation of zero-alcohol beverage use by adolescents<sup>3</sup> (e.g., via beverage provision), including in the family context,<sup>10</sup> has received little research attention.

## Research aims

We aimed to understand parents' awareness of zero-alcohol beverages and their current views about zero-alcohol beverage provision to adolescents and adolescent use.

## Methods

### Design and setting

We conducted a qualitative study with parents of adolescents aged 12–17 years. Interview data were generated as part of a broader project on parents' decision-making regarding alcohol provision to adolescents. Forty parents from three Australian states were recruited by a market research recruitment agency using non-probability sampling from an existing database of invitees who had previously expressed interest in research participation. This sample size was pre-specified and expected to achieve data saturation for the broader project. Due to time constraints, zero-alcohol questions were not asked (and the topic not otherwise raised) for two initial participants, who were subsequently excluded. Therefore, the analytic sample comprised of 38 parents.

Participants were screened for eligibility (i.e., parent aged  $\geq 25$  years,  $\geq 1$  adolescent aged 12–17 years living with them at least sometimes) and representation against key demographic quotas for the broader project (approximately 40% fathers, 25% resident in Western Australia). To ensure that the experiences of parents with 'younger' and 'older' adolescents were both represented, we recruited equal numbers of participants reporting that their eldest adolescent living at home was aged 12–15 versus 16–17 years.

### Data generation

In February–April 2021, semi-structured, individual interviews were conducted online by one of two interviewers. Both interviewers were male (although this was not a specific project requirement) and had postgraduate psychology/sociology qualifications, extensive qualitative research experience, and no pre-existing relationship with participants. Interviewers encouraged participants to share honest opinions, framed the interviews as non-judgemental, and disclosed personal characteristics (e.g., alcohol consumption, resident city, and that they were not parents themselves) where relevant to build rapport. Median interview length was 43 minutes (range: 24–53 minutes). An AUD\$60 retail gift voucher was offered as partial reimbursement.

### Survey items

We collected alcohol consumption and sociodemographic data through a brief online survey sent in advance of the interview. The full text of items considered in this study are available online via the Figshare repository [<https://doi.org/10.25451/flinders.24739257>]: demographic items included parents' age, gender, and country of birth. Participants also reported the number of children for whom they were a parent/guardian, the age ranges of children with whom they lived at least some of the time (using eight age bands including 12–13, 14–15, and 16–17 years old), and then the gender of children (male, female, or other (please specify)) in each selected age band. Participants' reported postcodes were used to derive state of residence, remoteness areas (i.e., 'major cities' to 'very remote' based on relative geographic service access per the Australian Statistical Geography Standard Remoteness Structure),<sup>30</sup> and area-level socioeconomic status using quintiles of the general Index of Relative Socioeconomic Disadvantage, which is based on a range of social and economic indicators associated with disadvantage in census data.<sup>31</sup> Past-year frequency of parental alcohol consumption was assessed with a single item adapted from the National Drug Strategy Household Surveys: "In the last 12 months, how often did you have an alcoholic drink of any kind?" with seven response options at frequencies ranging from 'Every day' to 'About 1 day a month' or 'Less often', plus 'Not in last 12 months', 'No longer drink', and 'Never drunk alcohol' options.<sup>27</sup> Data were not routinely collected on parents' lifetime zero-alcohol beverage consumption and provision or intended provision of any quantity of zero-alcohol beverages including sips for adolescents, but where this was volunteered in an interview, we inductively categorised responses and summarised their frequency. Zero-alcohol beverage consumption was categorised as 'not reported' for  $n=17$  participants who did not explicitly state their own consumption at interview, as adolescents' use was our focus and this item was seldom prompted. We assumed 'no provision' unless previous provision or intended provision before 18 years of age was reported (Table 1).

### Interview prompts

In this present study, we considered participants' responses to questions about zero-alcohol beverages, as well as any other times participants raised the topic in alcohol-related discussion. We asked participants about their experiences with alcohol-free beer, wine, and spirits and provided the following definition where necessary: "These are alcohol-free beverages that resemble, in terms of packaging and taste, their alcohol-containing equivalents. Some are produced under alcohol brands (e.g. Carlton Zero). They are available for purchase in supermarkets as well as bottle shops". Participants' perspectives about

adolescent consumption of these products were then explored, using prompts about perceived acceptability and any previous/intended future provision to adolescents. This topic was generally the last on the semi-structured interview schedule, unless raised earlier by either participants or interviewers when discussing alcohol-related topics in the broader study: for example, parents were asked whether their child had ever drunk alcohol and, if so, the age and setting of initiation. The alcohol-related data will be reported elsewhere.

### Analysis

We conducted reflexive thematic analysis following Braun and Clarke's methods.<sup>32,33</sup> First, we verified verbatim professional transcriptions against the interview audio recordings to ensure that data had been orthographically transcribed with accuracy and to an appropriate level of detail,<sup>33,34</sup> and de-identified personal characteristics including the names of children and their schools. To ensure familiarity with the dataset, N.J.H. and C.A.N. listened to all interview audio recordings, read and re-read transcripts, and documented initial observations. This process informed the generation of initial inductive codes, which was appropriate for the exploratory nature of the research. Systematic line-by-line coding of relevant transcript sections was conducted by C.A.N. using NVivo (QSR International). Codes with similar patterns of meaning were then grouped to generate candidate themes. Themes and subthemes were initially developed, reviewed, defined, and named by N.J.H. and C.A.N. Themes were further refined with input from A.B. and J.A.B.

Direct participant quotations were selected to illustrate the perspectives of a wide range of participants and different parenting stages (i.e., adolescents of different ages). We used randomly assigned pseudonyms and notated participants' intended or previous zero-alcohol beverage provision (in mutually exclusive categories: either no provision, or as sips or full drinks) for context.

## Results

### Descriptive data

Participants ( $n=38$ ) ranged from 33 to 60 years of age, with 23 mothers (Table 1). Participants were parents/guardians for two children on average (range: 1–5), and nine had children over the age of 18 years living with them at least some of the time. Most parents were Australian-born ( $n=30$ ) major city residents ( $n=32$ ), with 21 living in Victoria and 31 in areas from the two quintiles with the lowest levels of area-level socioeconomic disadvantage. Most reported past-year alcohol consumption ( $n=32$ ). Of parents who specifically described their own lifetime experiences with zero-alcohol beverages ( $n=21$ ), 13 reported having ever consumed them.

Seven parents reported zero-alcohol beverage provision to their children, either as a full serve ( $n=4$ ) or via sips ( $n=3$ ). Of the 31 parents who had not previously provided zero-alcohol beverages to their children, 15 intended to do so before 18 years of age.

### Interview findings

Most parents expressed mixed or ambivalent views about adolescent zero-alcohol beverage use. Few parents expressed entirely negative views but fewer still viewed them entirely positively. Parents considered that "Zero-alcohol beverages are adult beverages" (Theme 1). Regarding adolescent zero-alcohol beverage use, parents' most salient concerns were that the beverages had a role in

**Table 1: Interview participants' child, sociodemographic and own zero-alcohol/ alcohol beverage consumption characteristics (n=38 unless otherwise specified).**

	<i>M (SD), Range</i>
<b>Children's characteristics</b>	
Number of children (as parent/guardian)	2.3 (1.0), 1-5
Number of children (living with at least some of the time)	2.2 (1.0), 1-5
<b>Sociodemographic characteristics</b>	
Age, years	45.8 (6.4), 33-60
	<i>n</i>
<b>Gender</b>	
Male	15
Female	23
<b>Country of birth</b>	
Australia	30
African countries	3
Asian countries	2
North American countries	2
South American countries	1
<b>State of residence</b>	
Victoria	21
Western Australia	10
New South Wales	7
<b>Remoteness area</b>	
Major cities	32
Inner regional areas <sup>a</sup>	4
Outer regional areas	2
<b>Index of Relative Socioeconomic Disadvantage quintile</b>	
5 (most disadvantaged)	2
4	2
3	3
2	13
1 (most advantaged)	18
<b>Beverage consumption</b>	
<b>Parents' alcohol consumption, past year</b>	
Reported consumption	32
<i>Daily/weekly</i>	18
<i>Less often than weekly</i>	14
No consumption	6
<i>Current non-drinker</i>	5
<i>Lifetime non-drinker</i>	1
<b>Parents' zero-alcohol beverage consumption, lifetime (n=21)<sup>b</sup></b>	
Reported any consumption	13
No consumption reported	8
<b>Reported zero-alcohol beverage provision and intention to provide<sup>c</sup></b>	
No provision	16
No provision (current), but intended to provide before 18 years	15
Provided to adolescents	7
<i>Provided sips only</i>	3
<i>Provided full drink(s)</i>	4

<sup>a</sup>These four participants resided in areas with multiple postcode-derived remoteness categories (classified as both major cities/regional areas), for which the more remote category is reported.

<sup>b</sup>These data were not routinely collected; unless participants explicitly stated their zero-alcohol beverage consumption at interview, it was categorised as not reported (a further  $n=17$ ).

<sup>c</sup>Provision defined by any quantity, including sips of zero-alcohol beverages. Unless intended provision was explicitly reported by participants, they were categorised as having no intended provision to their child/ren before 18 years of age.

“Normalising alcohol consumption” (Theme 2), could act as a “Precursor to alcohol initiation” (Theme 3), and in both positive and negative ways might be “Preparing adolescents for alcohol” (Theme 4). Finally, when compared to other beverage provision, zero-alcohol beverages were generally thought to be “Healthier than alcohol, less healthy than water” (Theme 5).

### Theme 1. Zero-alcohol beverages are adult beverages

Most parents considered that zero-alcohol beverages were unnecessary for adolescents or at least less appropriate than for adults. Adult use (as alcohol alternatives) was generally recognised as appropriate and supported, particularly in pregnancy or periods of reduced or non-drinking—including temporary abstinences or longer-term changes.

*“I think it's a really good idea, yeah, I've got some friends that are trying to cut down on how much they are drinking, so they are going to those options.”* [Nat, intended to provide]

Another parent suggested that zero-alcohol beverages should be more readily available for adult consumption in appropriate outlets (e.g., licensed venues). However, they were not generally seen as products for regular, everyday consumption.

*“The amount of times that we've gone to a high-end restaurant, and it's all cocktails and the best wine list in [city], but what about people who don't drink? You know, I want something special too... you want something nice and a bit of a treat, something that you don't have at home.”* [Michelle, no provision]

Other than the alcohol-free beers and wines that were most often discussed in interviews, some participants were not familiar with other types of zero-alcohol beverages including non-alcoholic spirits. Parents commonly believed that adolescents would dislike the taste of alcohol-free beers and wines, and these were considered to be unpleasant (e.g., “awful”) or unappealing for adolescents in comparison to sweeter alcoholic (i.e., premixed-equivalent) beverages, particularly for girls. Alcohol-free wine was typically viewed as low quality, and alcohol-free beer which emulated the flavour of alcoholic beer was described by parents as being an acquired taste.

*“Well I think that they probably wouldn't like the taste of them [zero-alcohol beverages] because they like the, sweet... well, the girls tend to like the really sickly sweet 'vodka-ry' [alcoholic] drinks... Um, and, the non-alcoholic wines don't really taste that good.”* [Judy, provided full drink(s)]

Although it was suggested that adolescents may also dislike the taste of alcoholic beverages, parents often assumed this would be tolerated when adolescents were wanting to experience alcohol's intoxicating effects. Otherwise, it was considered there would be little benefit to consuming zero-alcohol beverage types that were not enjoyable to drink.

*“Oh, it's totally unnecessary. They'd have to ask themselves, 'why am I drinking this?' Because it doesn't taste good.”* [Michelle, no provision]



Zero-alcohol beverage provision was described favourably if adolescent consumption of either these beverages or alcohol was seen by parents as age-appropriate or inevitable (e.g., when an adolescent or their peers expressed interest). In the later teenage years (approximately 16-18 years of age), or at the time when adolescents were otherwise considered sufficiently mature or 'ready' to be introduced to alcohol, zero-alcohol beverages were seen as a particularly useful 'introduction'. This was often perceived as the appropriate time to commence zero-alcohol beverage use. Zero-alcohol beverages were not considered appropriate when alcohol consumption was not yet likely (e.g., for younger adolescents) or not desired by adolescents.

*"Maybe it's good in a situation where you have your 17-year-old who's going to the 18-year old's birthday, and he feels that, oh well, he wants to have a beer, and you say 'okay, fine, you want to have a beer, here's a beer, but it's not a beer'. But I don't think it's a good idea in general."* [Lauren, provided sips only]

## 2. Normalising alcohol consumption

There was widespread concern about the potential for zero-alcohol beverages to normalise alcohol consumption. Approximately half of parents did not support provision or consumption by adolescents, reflecting concerns that endorsing these behaviours could result in increased alcohol consumption.

*"If it's the whole 'being cool because you're drinking alcohol' sort of link, it's almost in the same realm as being harmful, you know: it's glorifying, it's normalising everything about alcohol."* [Dave, intended to provide]

*"...if I say, here you go, have a full can of non-alcoholic beer, it's like saying it's ok to drink a whole can of beer, as opposed to a sip."* [Gregory, intended to provide]

Parents were also concerned that their own consumption of zero-alcohol beverages could role-model and endorse drinking behaviours, with a potential impact being that adolescents would therefore view both zero-alcohol and alcoholic beverage consumption as desirable.

*"You are just teaching them you have to sit around and have a beer. If you are going to have a beer that's non-alcoholic, then you're just doing it for the looks. Have a can of Coke, because that's probably what you want at 14. Not a beer."* [Hannah, no provision]

These concerns were particularly salient for zero-alcohol beverages branded and marketed as alcohol-equivalent. In contrast, other practices similarly modelling alcohol consumption were described, that included encouraging adolescents to use alcohol-specific glassware (e.g., wine glasses) containing other non-alcoholic beverages (particularly fruit juices) during special family occasions and celebrations. Amongst both those who did and did not intend to provide zero-alcohol beverages, these practices were largely considered to be 'harmless', rather than normalising or having negative alcohol-related connotations.

*"But non-alcoholic drinks aside, I would have wine flutes for a special occasion and, I think we did that at Christmas, we give the kids a special cup and they have a special drink in it, like orange juice or it might be some kind of soft drink."* [Nat, intended to provide]

Some parents nonetheless felt that these practices could also contribute to developing an adult drinking identity.

*"I do remember actually as a younger child myself pouring my apple juice into a wine glass to feel older."* [Jessica, no provision]

However, concerns about normalisation appeared to be driven substantially by the visual similarities between product branding of the zero-alcohol containers and of their parent brands' alcohol-containing counterparts.

*"It's still a[n] alcoholic beverage. Oh well, it's branded as...an adult drink."* [Jordan, intended to provide]

## 3. Precursor to alcohol initiation

Parents generally assumed that alcohol use at some stage of adolescence or adulthood would be inevitable, but described a potential 'gateway effect' between adolescent zero-alcohol beverage consumption and accelerated alcohol initiation.

*"It works like a gateway drug you know, that they start on the zero-alcohol and they wanna try the real thing."* [Finn, no provision]

Unprompted comparisons were made to e-cigarettes, which parents also considered were linked to the initiation of cigarette smoking.

*"It's like vaping, you know? They don't think they're really smoking; they're vaping these things that have got this - I don't know, whatever juice - and then they get to the nicotine and then they get to smoking. So, it's just a precursor, you know? Making them feel like adults - and they're not really..."* [Kathleen, no provision]

Some parents believed that many adolescents want to prove a 'cool' maturity, and be perceived as older or having 'come of age', which could be accelerated by means of zero-alcohol beverage consumption. It was often suggested that social zero-alcohol beverage consumption could potentially 'glorify' alcohol use.

*"Is that making them sort of grow up and act adult-like, when you really could be holding it off a bit longer?"* [Lynne, intended to provide]

*"They're pretending, they're acting out a form of... 'I've got a pretend alcohol drink'."* [Emma, provided full drink(s)]

Parents described the existing marketing of zero-alcohol beverages as targeting both adolescents and parents, including via free public promotions/giveaways, television advertisements, and supermarket availability. Many parents reported becoming aware of zero-alcohol beverages due to product promotion through these channels. These strategies were considered problematic, and particular concerns were raised about alcohol-free beer brands widely promoted at the time of interviews. There were concerns that promotion could potentially expose young people to alcohol industry advertising, both directly (e.g., with prominent product placement in stores) and indirectly (e.g., by contributing to brand awareness).

*"Yeah, because I noticed our little supermarket here puts all the sales stuff right near the soft drinks. And so you could be just looking for a particular item in the soft drink aisle, and you see, you might just grab it."* [Matt, intended to provide]

However, it was also reported that the high degree of visual similarity between zero-alcohol and alcoholic beverages may actually deter use among health-conscious adolescents or those competing in high-level sports, who may prefer to not be associated with alcohol consumption or alcohol branding.

## 4. Preparing adolescents for alcohol

Parents suggested that zero-alcohol beverages with appearance similar to alcohol could be a useful tool for adolescents in particular

social settings, including when around peers, and they raised potential benefits associated with adolescent zero-alcohol beverage consumption. When viewed as alcohol alternatives, perceived benefits included their role in potentially overcoming peer pressure and 'preparing' them for future adulthood alcohol consumption. However, very few parents viewed these beverages as unconditionally beneficial: those who identified benefits often did so using qualifying terms (e.g., maybe, probably), suggesting uncertainty around potential impacts, or that benefits may be situation- and/or age-dependent.

Actual or potential parental provision was described as highly situational, often appropriate for social events and special occasions, but not for routine home consumption. Adolescent zero-alcohol beverage use and provision were often discussed in the context of adolescent parties, where there was a perceived peer pressure to consume alcohol, which zero-alcohol products could potentially overcome. However, some parents explicitly rejected this provision behaviour, and there was a general view that zero-alcohol beverages would not prevent alcohol initiation in the long-term.

*"So, what it's saying is, you can pretend to have a drink, because you've got to be in the crowd to have fun. I actually don't agree with it."* [Maria, no provision]

Parental provision of zero-alcohol beverages at such events was viewed as having the potential to 'teach' adolescents when and how alcohol consumption is appropriate, without involving alcohol. To introduce the flavour of alcohol (and without negative side effects) in advance of adolescent alcohol consumption, a small number of parents reported occasionally providing or allowing adolescents to taste or sip zero-alcohol beverages. This was generally considered preferable to alcohol consumption, but parents still supported moderating adolescent consumption by enforcing limits on the quantity of zero-alcohol beverage provided.

*"Well, I haven't given him a whole one or anything, it's just... He really doesn't ask for alcohol... That's like letting them practice drinking."* [Grace, provided sips only]

*"I'd allow them to have a sip to get that 'need to know what it tastes like' out of the way."* [Sophie, intended to provide]

In some cases, parents considered that providing a full (can or bottle) serve of a zero-alcohol beverage could imply stronger approval of zero-alcohol consumption and instead provided sips. Current and intended provision were also restricted to parents'/caregivers' own children, with provision to other adolescents (including adolescents' friends) seen as inappropriate. There was also some concern that for adolescents being seen to consume zero-alcohol beverages, a greater amount of peer scrutiny could be attracted, in comparison to other beverage types that may be more age-appropriate and viewed as socially accepted.

*"You'd probably get more shit hung on you for drinking an alcohol-free beer than you would for drinking a Coke."* [Peter, intended to provide]

In contrast, some parents were concerned that greater quantities of zero-alcohol beverages could give adolescents a 'taste' for alcohol without the negative effect of alcohol consumption (e.g., experiencing drunkenness): they felt that adolescents may be unprepared for the intoxicating effects of alcohol, and subsequently consume alcoholic beverages in greater quantities than they otherwise would, similar to the accelerated time of alcohol initiation ('gateway') described above.

*"...I think it gives them the wrong idea. I think if it tastes the same, and they can have five of them at a party, and not be affected, then they'll turn around and have five of the ones that have got the alcohol in them and be totally wiped out".* [Mel, no provision]

## 5. Healthier than alcohol, less healthy than water

Overall, most parents viewed zero-alcohol beverages as less harmful to health than alcoholic beverages. Some potentially harmful effects of zero-alcohol beverages were described, but these were generally perceived to be less severe than those resulting from alcohol.

*"Obviously it's not gonna have the effects that alcohol does and it's not gonna harm their body."* [Chloe, intended to provide]

Many concerns on the health qualities of zero-alcohol beverages related to energy content and other (unspecified) ingredients. Parents considered that zero-alcohol products containing very low but non-zero volumes of alcohol up to 0.5%ABV were less appropriate for adolescents than those with 0.0%ABV.

*"For me, it's the same. Even though they [zero-alcohol beverages] don't have alcohol, they probably have some side effects. You never know."* [Amy, intended to provide]

Across the interviews, zero-alcohol beverages were contrasted with other non-alcoholic drinks including water, soft drinks, and fruit juices. Some parents also discussed carbonated fruit juice and energy drinks in conjunction with zero-alcohol beverage provision, suggesting there were numerous ways that parents interpreted an 'alcohol-free beverage' and a high degree of perceived similarity between beverage types.

*"I would rather, I mean just, stick to a regular beverage, or fruit juices. I mean those are like, alcohol free drinks but..."* [Rob, no provision]

Participants variously noted that zero-alcohol beverage consumption could potentially substitute for consumption of other beverage types, including water where that was preferred at present. The sugar and energy content of zero-alcohol beverages was also frequently noted. As a result, some parents described limiting potential provision of zero-alcohol beverage quantities (e.g., to a single serving). However, there were mixed views. Some viewed zero-alcohol beverages as potentially healthier than sugar-sweetened soft drinks due to the former having lower perceived sugar and energy content. But overall, most parents expressed a preference for adolescents to consume other non-alcoholic (including artificially sweetened) beverages over zero-alcohol, and therefore, a preference to provide other beverages.

*"But then it's gonna have the sugar content as well. So that would probably be another, down[side] (laughs)...it's probably not an option either. I'd have to just give them a Coke, no sugar... Or a glass of water (laughs)."* [Chloe, intended to provide]

Unprompted comparisons were often made between zero-alcohol beverages and fermented beverages (i.e., kombucha, ginger beer). The language used by parents to describe fermented drinks and their perceived taste was usually more positive than that for zero-alcohol beverages (e.g., "...especially the alcohol-free red wine, oh it's appalling. And so now, I am much happier with a kombucha" [Michelle, no provision]). Some parents acknowledged fermented drinks could contain trace amounts of alcohol, but this did not seem to raise concerns and these beverages were generally considered preferable for adolescents over zero-alcohol beverages because they did not resemble alcohol products. One participant stated that it was possible

for adolescents to have a “*nice little treat*” by consuming a fermented product, and therefore considered zero-alcohol beverages to be unnecessary:

*“Why do you need to have that? You don’t. There’s other soft drinks and drinks... I mean, you can have ginger beer without having a ‘ginger beer’ beer.”* [Jemma, no provision]

Compared to alcoholic beverages and in terms of current and intended provision, many parents were sceptical of zero-alcohol beverage use and reported less acceptance of benefit from these products overall. A small number of parents indicated they would have preferred to provide alcohol: the perceived benefit of ‘teaching’ appropriate alcohol consumption, beyond sips or tastes, was unique to alcoholic beverages.

*“I’d rather you say to me, ‘oh I’m going to have a couple of drinks of this’: [so] here, have a glass of wine, if you are going to be responsible, have a couple of glasses of wine’. I have no issue with that.”* [Jennifer, no provision]

*“If my kids, if they are going to drink it, if they are going to ask for a drink at home with me, I’d rather give them the real thing and talk about the real thing... Alcohol-free, no. I’ve never been a fan of it, I’ve never seen the benefits as far as its relation to adolescent children. It’s not reality.”* [Lance, intended to provide]

## Discussion

In this study, we aimed to understand parents’ views towards zero-alcohol beverages, adolescent use, and provision to adolescents. Parents generally viewed zero-alcohol beverages as appropriate for adults, in part due to tastes perceived as likely unpleasant for adolescents who were yet to commence drinking alcohol. Potential value was also recognised for adults looking to reduce their alcohol consumption (i.e., as alcohol substitutes for those who have a liking for the taste), as zero-alcohol beverages could facilitate avoiding alcohol without necessarily challenging norms around alcohol consumption.<sup>35</sup>

The existing literature suggests that most parents expect alcohol initiation to eventually happen as part of a symbolic progression to adulthood, but may seek to delay initiation to an age deemed (more) appropriate.<sup>36</sup> In this sample, parents described potential benefits related to zero-alcohol beverage use in appropriate social settings, where adolescents could potentially ‘learn’ about or delay drinking alcohol. Adolescence has previously been described as a liminal stage, during which parents and society protect adolescents from ‘growing up too soon’, whilst supporting their ‘coming of age’ through engaging in behaviours—such as alcohol consumption—that signal progression through life-stages at socially acceptable ages.<sup>36–38</sup> Experiencing intoxication from alcohol has a history of being considered a part of ‘growing up’.<sup>38</sup> In the current study, parents similarly suggested that zero-alcohol beverage consumption could play a potential role in rehearsing ‘coming of age’ in a comparatively low-risk way.

Parents also reported concerns that in advance of adolescents’ progression to adulthood, zero-alcohol consumption could normalise alcohol consumption and act as an alcohol precursor. Some parents expressed concern that zero-alcohol beverages could accelerate alcohol initiation, consistent with the gateway hypothesis. These concerns often related to the current marketing of zero-alcohol beverages and similar branding to their alcohol-containing equivalents. However, concerns were particularly pronounced for

zero-alcohol beverages produced by major alcohol companies—especially beer brands.

Some parents supported and reported offering zero-alcohol drinks as a potential harm-minimisation strategy during the liminal stage of adolescence, but there were mixed views and hedging of potential benefits in interviews. Studies similarly show that parental alcohol provision is motivated by a desire to minimise potential harms.<sup>39</sup> For example, parents sometimes (incorrectly) view a gradual introduction of adolescents to alcohol, particularly in supervised settings including the home environment, as likely preventing excessive, harmful drinking later on.<sup>39,40</sup> Facilitating zero-alcohol beverage consumption by adolescents was largely identified as appropriate in UK survey data, with 67% of respondents indicating that allowing a child under 18 years to consume a zero-alcohol beverage at home, for example with parents, was acceptable.<sup>41</sup> In contrast, most parents in the present study considered zero-alcohol beverage provision for consumption *outside* the home, and particularly for social events, as an acceptable practice. This context of zero-alcohol beverage use is also consistent with the strategies reported by young people to discreetly manage non-drinking (or light drinking) in similar situations where alcohol is socially acceptable—for example, pretending that other non-alcoholic drinks contain alcohol.<sup>42</sup> It is possible that zero-alcohol beverage use in social settings may, therefore, not further denormalise alcohol consumption (compared to soft drinks or similar), and instead may actually renormalise alcohol(-like) consumption among young people.

There were important distinctions in how alcohol-like drinks were perceived, compared to those that more closely resemble soft drinks. Overall, most parents viewed zero-alcohol beverages as less harmful to health than alcoholic beverages, but not without potential consequences. Zero-alcohol beverages were considered to be more harmful than water; parents often consider water to be the healthiest of beverage types, as health perceptions of soft drinks are shaped by sugar and artificial sweetener content in particular.<sup>43</sup> Soft drink consumption is increasingly acceptable as children get older,<sup>44</sup> but the perceived acceptability of different beverage types among parents varies considerably by child age. For example, in one survey study, parents of adolescents were more likely to rate sports drink and iced tea products as healthy, compared to parents of younger children.<sup>45</sup> Some parents also introduce such drinks at different stages: Australian parents have reported restricting fruit juices from their children’s diets until early childhood, and sugar-sweetened soft drinks until early adolescence.<sup>46</sup> Artificially sweetened beverages may also be seen as acceptable for children in situations when sugar-sweetened drinks are not (e.g., at family meals).<sup>47</sup> Although very little research has examined parents’ perceptions of the fermented drinks raised in the present study (e.g., kombucha), parents have previously reported uncertainty on the health qualities of non-alcoholic drinks in other qualitative studies.<sup>48</sup> The perceived harms of zero-alcohol beverages described by some parents in this sample were more in line with harms from sugar-sweetened soft drinks than alcohol—for example, energy content.<sup>49</sup> When zero-alcohol beverages were seen in this sample to be similar to soft drinks (in terms of beverage components and their physiological effects), provision to adolescents was perceived as less controversial. But where zero-alcohol beverages were viewed more like alcoholic beverages—that is, when the appearance, taste, and representation of zero-alcohol was given more importance—provision was considered more controversial. This suggests that parents are likely

weighing up the perceived benefits and consequences of zero-alcohol beverages and other alternatives.

## Implications

Parents often provide alcohol to adolescents with the intention of ‘minimising harm’ (despite contrary evidence)<sup>50</sup> and to overcome the socially normative pressures from adolescents’ peers to consume alcohol,<sup>39</sup> which parents often feel is beyond their influence.<sup>40</sup> They may consider zero-alcohol beverage provision as an acceptable substitute, given the questionable acceptability of providing alcohol.<sup>3</sup> Parents also appear more likely to consume zero-alcohol beverages themselves: a UK survey showed higher reported use among parents of adolescents <18 years than non-parents or parents with children ≥18 years.<sup>41</sup> Parental alcohol consumption and alcohol-related discussions<sup>51</sup> influence children’s subsequent alcohol use,<sup>52</sup> including via alcohol expectancies<sup>53</sup> (i.e., personal beliefs developed about the effects of one’s own or another person’s alcohol use on behaviour, emotion, and/or cognition).<sup>54</sup> In addition to already complex alcohol provision-related decisions, parents must now navigate new decisions on the provision of zero-alcohol beverages without clear guidance.

These findings highlight the need to develop guidance for parents on decision-making around zero-alcohol beverage provision. Although there is currently limited research evidence on potential harms for adolescents, a precautionary focus on potential risks may be advisable. Consistent with this, there are some international examples of parent-targeted guidance on zero-alcohol beverage use by adolescents: a health promotion organisation in the Netherlands produced a resource which highlights the potential association between zero-alcohol beverages and alcoholic equivalents for young people, and importance of parental role-modelling.<sup>55</sup>

The concerns expressed might also imply that policy measures on zero-alcohol beverages may be well-received, particularly age restrictions on adolescent access to and marketing of these beverages. Restrictions should include limitations on promotional give aways without age verification: such promotions have been observed recently in Australia<sup>56</sup> but parents described them negatively in the present study. In the alcohol context, access and marketing are policy domains implicated most strongly in population-level drinking.<sup>57</sup> This would also align with the World Health Organization’s action plan (2022–2030) for its global strategy on alcohol, which emphasises the need to avoid targeted marketing towards non-users of alcohol, such as adolescents, but also encourages industry to substitute zero-alcohol beverages for higher-strength products within product portfolios to decrease overall alcohol consumption among those who drink.<sup>58</sup> Although relatively little is known about the effectiveness of policy-level responses targeting zero-alcohol beverages, there have been widespread public health calls for restrictions on brand advertising, as in Norway,<sup>29</sup> to be considered in other jurisdictions.<sup>25,41</sup> Norway’s alcohol advertising ban has applied since 1997 to all products produced by a brand with alcohol-containing products >2.5%ABV,<sup>29</sup> and has evidence of a protective effect via reduced alcohol sales.<sup>59</sup> These restrictions, therefore, extend to alcohol brand names and designs to include zero-alcohol beverages that may promote the parent alcohol brand,<sup>29</sup> and may help address some concerns reported in the present sample if implemented in Australia.

The sample of parents in this study found themselves in a bind about zero-alcohol beverage provision to adolescents. Future research is needed to understand parents’ purchasing decisions in the context of adolescent provision, and potential support for policy responses, in addition to Australian adolescent views on zero-alcohol beverages and their availability. This is particularly timely as the availability of zero-alcohol beverages and other new brand extension products continues to increase. These products may be used by alcohol companies to evade existing advertising restrictions.<sup>18,22,60,61</sup> For example, similar concerns have been raised regarding adolescent exposure to industry marketing following the recent introduction of an alcoholic beverage under an established soft drink brand into the Australian market.<sup>62</sup> Other products carrying designs from soft drink and energy drink brands have been introduced overseas in recent years.<sup>63</sup> One additional step towards reducing potential harms would be regulation to ensure that alcohol brand names and designs for alcoholic drinks are reserved for them and that same brand and like labelling are not used for zero-alcohol and non-alcoholic drinks.

## Study limitations

Zero-alcohol interview questions were typically asked at the end of interviews focused on parental provision of alcohol, which may have influenced parents’ views on zero-alcohol beverages and oriented parents to talk about them in particular ways. For example, parents may have compared and contrasted their approach to considering zero-alcohol beverage provision to their approach for alcohol, or considered a potential role of zero-alcohol beverages in facilitating or substituting alcohol consumption. It is also possible that other family members including older siblings, might have influenced adolescents’ exposure and attitudes to zero-alcohol beverages, as is well-established for alcohol.<sup>64</sup> In this study, relatively few parents (nine of 38) had a child over 18 years of age living with them at least some of the time, and future research could explore this dynamic specifically, plus consider setting additional sample quotas to better enable a comparative focus for adolescents with and without older siblings.

Convenience sampling was used, and the number of non-responding invitees in recruitment or reasons for non-response were not available. Parents in areas with higher socioeconomic status were over-represented in this non-probability sample,<sup>31</sup> but this focal group is likely to be key for future studies because higher levels of zero-alcohol beverage purchase and consumption have been consistently documented among more socioeconomically advantaged groups.<sup>4,10,41,65</sup> Currently in Australia, zero-alcohol beverages are usually less expensive than regular alcoholic beverages,<sup>3</sup> but more expensive than soft drinks. There is little research evidence on the different ways that products may be marketed across areas of different levels of socioeconomic status, but campaign analyses have highlighted the premium positioning of certain non-alcoholic spirit products for more ‘affluent’ adult consumers.<sup>25</sup>

We did not specifically seek parents’ perspectives on access to or marketing of similar beverage categories including fermented beverages in comparison to zero-alcohol beverages, which remains a research gap that could be explored further. Finally, whether or not parents provided/intended to provide zero-alcohol beverages to their children was not specifically prompted for some participants in this study, and in future, quantifying these behaviours and associated characteristics among Australian parents could also inform targeted parenting guidelines.



## Conclusions

In this Australian sample of parents, most viewed zero-alcohol beverages as adult beverages that may be less harmful to health than alcoholic beverages, but that may play a role in normalising and promoting alcohol. Although some parents supported providing zero-alcohol beverages as an acceptable form of harm minimisation, parents' views reflected conflict and caution. Parent-targeted messaging is needed to provide guidance, and broader policy responses on zero-alcohol beverages including alcohol brand-level advertising restrictions should also be considered to address parents' concerns regarding current marketing practices. Efforts are now needed to communicate potential harms of zero-alcohol beverages, and support parents when navigating purchase and provision decisions with adolescents.

## Data accessibility statement

The data that support the findings of this study are available on reasonable request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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## Conflicts of interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Jacqueline A. Bowden reports financial support was provided by the National Health and Medical Research Council and Cancer Council SA's Beat Cancer Project on behalf of its donors and the State Government of South Australia through the Department of Health. The National Centre for Education and Training on Addiction team (N.J.H., C.A.N., A.B., J.A.B.) receives funding from the Australian Government Department of Health and Aged Care to support research regarding alcohol and other drugs. The funding agencies had no role in study design, data collection, analysis, decision to publish, or manuscript preparation.

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