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"There's just a lot of numbers and I just want to have a drink": The challenge of communicating the energy content of alcohol products

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"There's just a lot of numbers and I just want to have a drink": The challenge of communicating the energy content of alcohol products

Abstract

Various governments are considering the implementation of energy labelling on alcohol products as one element of obesity prevention policies. However, little is known about the most effective ways to communicate energy information to consumers. The aim of the present study was to explore consumers' reactions to different energy information provision formats to assist the development of effective energy labels. Nine focus groups (n=83 participants) were conducted with Australian adults who reported drinking alcohol at least twice per month. Participants were exposed to an energy-only information label and labels displaying full nutrition information panels. A thematic analysis approach was used to identify key issues. While few participants were overtly enthusiastic about the mandatory display of energy values on alcohol products, there was general support for the provision of this information to assist those drinkers who could benefit from it. Substantial confusion was apparent as participants attempted to distil meaning from the provided information, particularly where it was expressed in terms of serving sizes and standard drinks. Full nutrition panels were especially problematic in terms of creating a health halo due to the nil or low values for multiple nutrients listed. This was especially notable for information relating to sugar content. Overall, there appears to be inadequate public understanding of the concept of dietary energy in alcoholic beverages and the various terms used to quantify its presence, which is likely to limit the utility of mandatory energy information provision requirements unless they are accompanied by effective community education.

Keywords: alcohol, energy, labelling, consumer education

1. Introduction

There is a large and growing body of evidence on the health risks associated with excess adiposity (Sattar et al., 2023; Valenzuela et al., 2023). Increasing obesity prevalence rates are prompting governments to consider various policy interventions designed to improve individuals' diet quality in an effort to stem rapidly escalating health system costs (Balogun, 2023; Commonwealth of Australia, 2022). While comprehensive approaches combining multiple policies are more likely to be effective in combatting obesity and its associated negative health outcomes (Kumanyika & Dietz, 2020), proposed interventions often focus on specific nutrients (e.g., sugar (Zenz et al., 2024)), specific product categories (e.g., sugar-sweetened beverages (Mulcahy et al., 2022)), or information provision (e.g., nutrition labelling (Pettigrew, Jongenelis, et al., 2023)) to capitalise on 'low hanging' options that can make a substantial difference to diet quality through single initiatives. These policy initiatives are consistent with World Health Organization recommendations for interventions that have substantial cost-effectiveness data to support their implementation, such as sugar-sweetened beverage taxes and front-of-pack nutrition labelling on packaged foods (World Health Organization, 2024).

Alcohol is a single dietary component that can contribute to obesity (Grech et al., 2017; Sherk et al., 2019; Traversy & Chaput, 2015). One gram of alcohol contains 29 kilojoules/7 calories, while 1 gram of protein and carbohydrate each contain 17 kilojoules/4 calories, and fat contains 37 kilojoules/9 calories per gram (Guthrie et al., 1990). Alcohol is different from other macronutrients in that the energy it provides is not associated with essential nutrients (Schutz, 2000). In addition, the relationship between alcohol consumption, energy intake, and weight status is complex due to different quantities and patterns of drinking having different effects on intake of other nutrients (e.g., fat, carbohydrate, and protein) and the metabolism of alcohol involving some heat loss rather than solely supplying metabolic energy (Cummings et al., 2020; Schutz, 2000). Alcohol affects energy metabolism, and weight gain resulting from alcohol use tends to contribute to central adiposity, which in turn is associated with increased risk of heart disease and liver damage (Dionisi & Addolorato, 2021).

Many consumers are unaware of the energy content of alcohol, preventing them from appreciating the potential contribution of their alcohol consumption to their weight status

(Robinson et al., 2021, 2022). Providing energy information to consumers when they are purchasing alcohol may address this knowledge deficit and facilitate informed choices, and access to this information has been proposed as a consumer right (Bowden et al., 2022). On-pack energy labelling has the potential to provide this access, although the limited previous research to date examining alcohol product choice in simulated/hypothetical contexts has typically failed to find significant effects on product choices resulting from exposure to energy information (Jones et al., 2024; Robinson et al., 2021, 2023). However, studies across numerous countries have demonstrated majority public support for the inclusion of energy labelling on alcohol products (Dekker et al., 2020; Grunert et al., 2018; Robinson et al., 2021, 2022).

Despite evidence of a lack of consumer awareness of the energy content of alcohol and clear consumer support for energy labelling, there are some concerns about the provision of this information on alcohol products. First, there is the potential for the presence of energy information to assist in the promotion of low-energy alcohol products and distract consumers from the most harmful aspect of these products – the alcohol content (Atkinson et al., 2024). Second, there is the possibility that making energy content salient could result in consumers 'trading off' energy sourced from foods for energy sourced from alcohol in an attempt to avoid weight gain (Bryant et al., 2012; Thompson-Memmer et al., 2019). As consumers tend to over-estimate the energy content of alcohol, the provision of accurate energy information has the potential to result in increased alcohol consumption (Robinson et al., 2022). Third, understanding about the risks associated with alcohol (e.g., that it is a group one carcinogen) among the general public is low (Kokole et al., 2023; Seidenberg et al., 2023). There is thus the potential for the provision of nutrition information that is typically seen on food products to further confuse consumers about the status of alcohol as a drug rather than a food.

Finally, the energy content of foods is often presented in the context of a nutrition information panel that also lists quantities of various nutrients, particularly carbohydrates/sugars, sodium, and fats. Given the nature of many alcoholic beverages, there can be negligible or nil quantities of these nutrients, resulting in the potential for nutrition information panels to convey the impression that the products are healthy (Bui et al., 2008). Such an interpretation is highly problematic given that alcohol is a major cause of death and disability and there is no safe level of intake (World Health Organization, 2018). It is therefore important that energy labelling does not inadvertently provide alcohol with a 'health halo'.

These complexities have contributed to a lack of government policy on alcohol energy labelling in most countries. As a consequence, in many instances there is a discrepancy between the energy labelling requirements for alcoholic versus non-alcoholic products, whereby alcohol requirements are more lax (Hepworth et al., 2021). Growing international interest in developing further policy guidance in this area can be seen in discussions on alcohol labelling since 2017 at the international food standards agency, the Codex Alimentarius Commission (Codex) (Food and Agriculture Organization of the United Nations, 2017). During the most recent meeting of the Codex Committee on Food Labelling in 2023, the Secretariat noted that existing Codex texts already apply to alcoholic beverages (Food and Agriculture Organization of the United Nations, 1991), including the Codex Guidelines on Nutrition Labelling that mandate nutrient declarations that incorporate energy value on all prepackaged foods. However, the Secretariat also noted that these Guidelines do not appear to have been widely applied by Codex Member States to alcoholic beverages (Food and Agriculture Organization of the United Nations, 2017). Codex is currently considering whether it should take further action in this area.

In Australia, the context of the present study, 66% of the adult population is living with overweight or obesity (Australian Bureau of Statistics, 2023). The Australian Dietary Guidelines recommend limiting alcohol consumption to assist in managing energy intake (National Health and Medical Research Council, 2013). Average per capita pure alcohol consumption is around 9 litres per year (IBISWorld, 2024), which equates to approximately 2 standard drinks per day (10g of pure alcohol per standard drink (Australian Government Department of Health and Aged Care, 2020)) and 26 days' worth of energy intake each year for the average adult. It is estimated that alcohol contributes around 16% of energy intake on days when alcohol is consumed among those who drink (Food Standards Australia New Zealand, 2021). However, alcohol producers are not required to display energy or other nutrition-related information on products unless a nutrition content claim is made (Australian Government Department of Health and Aged Care, 2018, 2021). The only nutrition-related claims that are permitted in relation to alcohol are for energy, carbohydrate (although there are numerous instances in the market where the industry has interpreted this specification as also relating to sugar (Sträuli et al., 2023)) or gluten content. If a claim about energy or carbohydrate is made on an alcoholic beverage, a full nutrition information panel, with values for energy, protein, carbohydrates, sugars, fat, saturated fatty acids, and sodium, must be included on the product.

The Blewett Review of Food Labelling Law and Policy in Australia, conducted 2010-2011, was tasked with assessing policies, standards, and laws pertaining to food and alcohol labelling and making recommendations to improve relevant laws and policies (Blewett et al., 2011). An outcome of the review was the recommendation that energy content should be displayed on alcohol product labels to provide consumers with information that could be used to assist with weight management, noting that this would be consistent with requirements applied to food and non-alcoholic beverages. This recommendation was agreed in principle by the government at the time (Food Standards Australia New Zealand, 2017), but only recently has Food Standards Australia New Zealand (FSANZ) initiated processes to develop a proposed approach for presenting energy information on alcohol products (Food Standards Australia New Zealand, 2023a).

The process of progressing mandatory energy labelling on alcoholic beverages has in part been stymied by a lack of evidence to guide policy development and implementation. Little is known about the most effective ways to communicate energy information on alcohol products to consumers to increase knowledge but avoid the risks outlined above. The draft energy information label currently proposed by FSANZ provides energy information in multiple formats (per serving, per 100ml, in kilojoules, and in calories), and also incorporates information about servings per container and the relationship between a serving and a standard drink (see Figure 1) (Food Standards Australia New Zealand, 2023b). The proposed label would be in addition to existing FSANZ alcohol labelling requirements for the volume of liquid, number of standard drinks in the package, and the percentage of alcohol content. Serving sizes are not currently stated on alcohol products in Australia, but are typically displayed on food and non-alcoholic beverages, with manufacturers able to specify the quantity of the serving size on a product-by-product basis, resulting in substantial variation within and between product categories (Haskelberg et al., 2016).

To assist energy label policy progression in Australia and to provide insights of potential relevance to countries with similar alcohol cultures, the primary aim of the present study was to explore how Australians who drink alcohol interpret the FSANZ draft energy label. A second aim was to compare consumers' reactions to the draft energy label to their responses to alternative labels that include full nutrition information panels incorporating energy information along with values for the other nutrients that are currently listed on food labels.

Insert Figure 1 about here

2. Method

An exploratory approach to data collection was adopted due to the limited prior evidence examining formats of energy information provision. Nine online focus groups were conducted with adults who consumed alcohol at least twice per month, with the groups segmented by sex, age, location (metropolitan vs non-metropolitan), and drinking status (within the low-risk guidelines vs exceeds the guidelines (National Health and Medical Research Council, 2020)). The focus groups were conducted in three Australian states: New South Wales (NSW) (4 groups), Victoria (3 groups), and Western Australia (WA) (2 groups). To obtain coverage across states, two social research agencies were commissioned to recruit participants (Chitchat Research and Thinkfield).

As shown in Table 1, the sample of 83 participants (average of 9 per group) was evenly split by sex and representation across three age groups: 18-30 years, 31-50 years, and 51+ years. Roughly reflecting the Australian population, two-thirds of participants resided in metropolitan areas and the remainder in non-metropolitan areas. One-third of participants drank at levels defined by the National Health and Medical Research Council as low risk (no more than 4 drinks on any single occasion and no more than 10 drinks per week (National Health and Medical Research Council, 2020)) and two-thirds had exceeded either or both of these amounts over the previous year. This over-sampling of heavier drinkers ensured access to those who have higher risk of alcohol-related harm. Participants provided written informed consent and received AU$90 remuneration for attendance. The study received approval from a university Human Research Ethics Committee.

Insert Table 1 about here

During the focus groups, participants discussed their typical alcohol purchase behaviours, including where they bought alcohol and their preferred forms of alcoholic beverages. They were shown images of various types of alcohol beverages to stimulate discussion, some of which displayed a full nutrition information panel (one beer, one premix (ready-to-drink), and

one alcoholic kombucha – see Figure 2). Towards the end of the session, participants were shown the FSANZ draft energy label (Figure 1) and asked for their reactions.

Insert Figure 2 about here

All groups ran for around 90 minutes and were videorecorded with the participants' permission. The audio from the recordings was subsequently separated from the video file and sent to an independent ISO-accredited transcription agency for processing. The transcriptions were imported into NVivo qualitative data management software for coding and analysis. An inductive approach was adopted, which involved developing an emergent coding framework as concepts arose in the data, with back-coding used to ensure all relevant data were assigned to each code. A single coder (author SP) performed all the coding, which is an appropriate approach for exploratory research where emergent coding is undertaken (Smith & McGannon, 2018). A thematic analysis was conducted via application of the constant comparative method (Glaser & Strauss, 1967) to identify similarities and differences across participants' responses to the varying energy label types, with consideration given to any apparent variation according to participant age and sex. The resulting themes were discussed among the members of the research team prior to finalisation.

3. Results

Three primary themes were derived from the data: (i) overall acceptance of an energy label on alcoholic beverages, (ii) substantial confusion about terms used to communicate energy information, and (iii) the potential for both energy labels and nutrition information panels to create a health halo for alcohol products. Each theme is described below with illustrative interview extracts provided.

3.1 Theme 1: General support for the provision of energy information

While not overtly enthusiastic about the mandatory display of energy values on alcohol products, many focus group participants felt that provision of this information could be of benefit to at least some consumers due to a current lack of understanding of the energy contained in alcohol products. It was noted that there is increasing health consciousness among

the general public, including in relation to alcohol choices. Communicating energy content through product labelling was generally considered an appropriate method of drawing attention to information that is likely to be relevant to this growing segment of the population.

> *It's probably good to have because I think a lot more people are a bit more health conscious now, they kind of want to know what's in what they're drinking (female, 18-30 years).*

> *For the average person, if you look at me, I don't count calories enough. If I have to, and that's on the back, geez, it wakes you up to it and gives you a bit of extra knowledge (male, 51+ years).*

The two forms of assessed labels – full nutrition information panels (Figure 2) and the FSANZ energy-only information panel (Figure 1) – received quite different reactions. The full nutrition information panels were typically seen as largely irrelevant due to the inclusion of nutrients not usually found in alcohol products, especially protein and fat. However, sugar content information was often considered to be useful because of perceptions of sugar as being a particularly harmful nutrient.

> *I don't think anyone's particularly fussed about how much protein they're getting from a beer (male, 18-30 years).*

> *I wouldn't expect there to be really to be fat and protein in any alcoholic drink (female, 31-50 years).*

> *I like that the sugar content's listed … because I'm always looking at how much sugar is in things, so that's important to me (female, 51+ years).*

Correspondingly, while there was general support for the energy-only label, a common criticism was that information specific to sugar was not provided. In some cases, this concern appeared to be linked to expectations formed due to exposure to the nutrition information panels usually found on packaged food products.

Information's great, but I want to know where the energy is coming from. So like it still doesn't tell me about sugar levels and stuff like that (female, 31-50 years).

I think it's a bit limited in the information it provides. Normally, when I see these labels, I'm used to seeing not just energy in terms of kilojoules, but also amount of sugar, which is more influential for me personally (male, 18-30 years).

For the minority who expressed no interest in the availability of energy labelling on alcohol products, it appeared that alcohol represented a non-negotiable source of kilojoules in their diets because the desire to consume alcohol outweighed other considerations. In almost all cases, these participants were female, with representation across all age groups.

There's just a lot of numbers and I just want to have a drink (female, 31-50 years).

I know for me personally, like I don't think in terms of like the calories and kilojoules, like that to me isn't important (female, 18-30 years).

There is a lot of information on there. I've got to be honest, I don't look at the back of anything. If I want it, I'll have it. It's very straightforward (female, 51+ years).

3.2 Theme 2: Copious confusion

Multiple areas of confusion relating to the energy-only label were evident across all the focus groups. These included an inadequate understanding of energy as an abstract construct, difficulty differentiating between terms used on the label, and an inability to effectively apply the information provided within the label at the point of purchase. Confusion about energy-related concepts was less commonly mentioned when participants were discussing the full nutrition information panel (compared to the energy-only label), which seemed to be due to the lack of attention paid to energy information in this context and the focus instead on sugar and carbohydrate content.

3.2.1 The concept of energy

In almost all instances the focus group participants discussed energy in terms of calories, not kilojoules (the latter being the official Australian metric). However, regardless of which term

they preferred, some participants were not able to adequately contextualise the energy information provided in the energy-only label for it to be useful. Without immediate access to additional information about how much energy the alcoholic beverage would contribute to recommended daily energy intakes, they did not know how to process the information.

> *I don't know what that is compared to - is 61 calories a good thing or a bad thing? That could be a great thing, but what's 61 compared against? If that's the whole idea of making better choices and this is going to add to your obesity and reducing obesity, that's not helping me there at all (male, 51+ years).*

Some participants negated the importance of energy as a concept altogether, perceiving it to be of much lesser relevance than other nutrition-related product attributes such as sugar and additives. In the following quote, in addition to information about energy being perceived as extraneous, alcohol content is conspicuous by its absence in the list of alcoholic beverage components that were considered to be of concern.

> *I think it's well and good for them to tell us the energy or the calories that's in it, but there's a lot of other factors that I think are more important than calories when it comes to the contents of things that we're drinking. I'd be looking at the sugar, at the sodium … The calories aren't going to kill me. It's all about additives and the sodium and everything else that's going to kill me (female, 51+ years).*

3.2.2 Competing terminology

The term standard drinks was familiar to participants due to its presence on alcohol containers in Australia since 1995 and its long-standing use in drink driving guidance.

> *You can say one standard drink is 30 mils. Then you know, oh ok, well, I can have this much before I can drive home (female, 18-30 years).*

> *It tells you on the bottle, like it is one standard drink or 1.2 or 1.4, or something like that (male, 51+ years).*

Serving sizes were only familiar to participants in terms of being listed on food products, and some of the focus group participants raised concerns about how this information would be

interpreted if displayed on alcohol labels. While some could readily grasp the intended meaning of the displayed energy information across both the standard drinks and serving size measures, for others the combined use of these terms in the context of alcohol consumption was clearly problematic.

Too much information. It's too confusing. It needs to be more plain (female, 51+ years).

I think the servings per package is going to confuse everyone (male, 31-50 years).

I got a bit confused about what standard drinks that they're actually talking about (female, 31-50 years).

I would probably want the number of standard drinks, but someone else might want to know the servings per package. Realistically, I think a pub owner is probably the only person that really cares about the servings per package because nobody I know drinks per serving (male, 51+ years).

I think people get those confused all the time and not realising or they're not sure how much is in a serving. I know it says it right there, 30ml, but there's just a lot of math going on I think (female 31-50 years).

The 100ml alternative was considered useful by some because of the consistency in metric across products of different sizes. However, it was seen by others to be less helpful for high-alcohol products that are typically served in small quantities.

I would use per 100mls, just because – I don't know, serving size is different between different products (male, 18-30 years).

When you go to the shops and you're trying to compare, say, chocolate, how much you have to pay per 100 grams or whatever, I think the quantity per 100mls applies to all the alcohol, so I think that one would probably be the easiest one to understand, because they're all using the same ratio to compare against. But quantity per serving might be a little bit more confusing, because each of them has a different serving size (male, 31-50 years).

I think it needs to be serving size because it depends on what you're drinking because if this is vodka or spirits, yeah, it's only going to be a nip, but if it's wine or beer it has to be – like if it's 375 millilitres, some of the beers now are only 330 millilitres, so I think it's more useful to know if it's a standard drink in the standard size (female, 51+ years).

Others, typically males, were able to explain the difference between standard drinks and serving sizes, but noted that the latter may or may not be helpful depending on the drinking situation. In particular, some were uncomfortable with serving sizes because they can vary between products, which complicates comparisons.

I would use per serving in this case, because it's a kind of intuitive serving size. But I think with a lot of things the serving size can be very arbitrary as to what it is… So if the serving sizes were I guess mandated to actually be reasonable, then I think that makes a lot more sense (male, 18-30 years).

I'm just going to look at the standard drinks label, and if I'm doing it - serving it to myself, I'm not going to look at the servings per package (male, 31-50 years).

Some participants raised the issue of the energy label needing to be fit for purpose in alcohol purchasing contexts where shoppers do not typically come prepared for a maths exercise.

I don't suppose drinkers take calculators with them (male, 51+ years).

I think you have to compare like for like. So I think when you compare labels on different bottles you have to go with the 100mls … You can't do the math in your head while you're standing in the bottle shop, so it has to be like for like (female, 51+ years).

3.3 Theme 3: Signalling healthiness

The full nutrition information panel examples shown to participants during the focus groups frequently resulted in comments about the perceived healthiness of the products. The low or zero values for most of the listed nutrients drew attention and sparked interest.

That nutrition panel is kind of interesting – lots of zeroes (male, 51+ years).

(It's) glorified water … it's healthier, you won't be as hungover the next day maybe (male, 18-30 years).

It's practically good for you (female, 51+ years).

It appeared that the provision of detailed nutrient information distracted participants from considering the alcohol in the product as a potentially harmful component. Instead, they were left with the impression that there was nothing present to worry about at all.

They're saying there's nothing in there other than really water, so you can get it in there (male, 31-50 years).

There's nothing really bad in there - there's less than a gram of sugar, there's less than a gram of total saturated fats. You're not having anything that's really bad for you (male, 51+ years).

They've got clearly very little ingredients on there so people can be comfortable in knowing that they're not putting anything in their bodies that's going to affect them in a negative way (female, 51+ years).

4. Discussion

A lack of evidence on how consumers respond to energy labelling information presents a key challenge to integrating such information into government labelling policy (Food Standards Australia New Zealand, 2023b). The results of this exploratory study suggest that in Australia the task is likely to be complicated by considerable consumer uncertainty about the key terms used to communicate energy-related information on alcohol products. Areas of confusion were found to range from the fundamental concept of dietary energy through to the co-use of measurement units such as serving sizes and standard drinks. An additional identified issue was apparent low interest in using energy content as a decision criterion when selecting alcohol

products, which is likely to reduce consumers' motivation to engage with energy information, especially where substantial cognitive effort is required. This was especially notable among some female participants who did not see energy content as relevant to their alcohol consumption decisions, which is consistent with recent qualitative research in the UK that found that some women resisted calorie-based alcohol marketing (Atkinson et al., 2024). However, aligned with previous Australian alcohol (Dekker et al., 2020) and food (Pettigrew, Booth, et al., 2023) research, there was general support among the study participants for energy information to be included on alcohol products due to a perception that this information is likely to be useful for at least some people.

In terms of understanding the concept of dietary energy, similar issues have been identified in the food sector, with the limited available research finding that consumers have a poor grasp of the abstract concept of energy and can struggle to apply this concept to specific products (Block et al., 2013; Krukowski et al., 2006; Pettigrew et al., 2013). This may go at least some way towards explaining the observed lacklustre effects of menu energy labelling on consumers' food choices and dietary intake (Dumoitier et al., 2019; Petimar et al., 2021). The results of the present study are also consistent with prior work demonstrating that contextual information in the form of daily energy intake guidance is likely to be needed to enable consumers to interpret product-specific energy information in a meaningful way (Krukowski et al., 2006). However, provision of this information may not achieve the desired aim unless accompanied by extensive consumer education to make this information salient and interpretable. In addition, consumer education on the relative energy contributions of different nutrients seems warranted given the focus group participants appeared to consider sugar to be of greater concern, despite alcohol containing substantially more energy than sugar (Guthrie et al., 1990). This reflects growing consumer concern about sugar that has been identified in the literature relating to consumers' perceptions of healthy and unhealthy food products (Rodda et al., 2020; Stanner & Spiro, 2020). A tendency to judge product healthiness according to sugar content is problematic in the alcohol context given recent evidence showing that low sugar claims can provide an overall health halo to alcoholic beverages (Cao et al., 2023; Pitt et al., 2023).

In terms of the proposed per serving terminology, findings of the present study are aligned with research in the food domain showing that consumers have difficulty understanding and applying per serving information, especially where companies are permitted to set their own serving sizes on a product-by-product basis (Bucher et al., 2018; Van der Horst et al., 2019).

Similarly, studies have shown suboptimal public understanding of standard drinks measures (Coomber et al., 2017). The focus group participants often struggled to reconcile the standard drinks information provided with the serving size and per 100mls information. The uncertainty experienced when attempting to apply each of these pieces of information individually appeared to be compounded when they were presented together.

The focus group results suggest that neither the FSANZ draft energy label nor the full nutrition information panels examined in this study are likely to achieve the policy goal of adequately informing consumers about the energy content of their alcoholic beverages due to substantial consumer confusion. In particular, the co-location of mandatory energy information in close proximity to information about the number of standard drinks and servings in the container may compound confusion. This finding has implications for how energy labelling regulations could be most effectively introduced. In the first instance, whichever unit(s) of measurement is chosen, appropriate levels of public education will be needed to ensure consumers can use the provided information to effectively manage their alcohol energy intake. Second, this education would need to include explanation of alcohol as a substantial source of energy for many people who drink, including in comparison to other nutrients such as sugar, to motivate energy information processing.

Third, any use of serving size terminology would ideally be accompanied by the specification of standardised units to facilitate like-with-like comparisons between different types of alcoholic beverages and to avoid the misleading use of different serving sizes as has been found in the food sector (Bucher et al., 2018). In the absence of any apparent determination on alcohol serving sizes to date by FSANZ, equating a serving size to a standard drink and using only the latter term may ultimately be more feasible given familiarity with standard drinks measures in the context of drink driving. Finally, the apparent health halo produced by the full nutrition panels due to the large number of small values highlights the need to reconsider requirements for products displaying nutrition content claims (e.g., ‘low carb’ and ‘low sugar’) to provide a full nutrition information panel. Options could include restricting nutrition information to only nutrients of relevance to the claim or prohibiting the use of nutrition claims on alcohol products altogether due to their potential to mislead consumers about product healthiness (Bui et al., 2008; Cao et al., 2023).

4.1 Study limitations and future research directions

The primary limitation of this study was the exploratory approach necessitated by the small amount of previous work in this domain. Due to the modest sample size, the results can only be considered indicative, and further work is required to assess generalisability of the findings. Second, the study was confined to Australia, and consumers elsewhere may provide different responses. Third, just one energy-only label was assessed, and there is a need to test a much broader range of potential methods of conveying alcohol energy information to consumers. Finally, while there was an indication that the provision of energy/nutrition information resulted in the focus group participants being distracted from considering other negative aspects of alcohol use, this outcome was not explored in any detail and it is important for future research to more specifically examine this issue (Hepworth et al., 2021). Such research could include consideration of other ingredients of concern, such as processing additives, that were also raised by some of the study participants.

4.2 Conclusion

A decision on how energy information is to be displayed on alcohol products is being made imminently in Australia. The findings of this study indicate inadequate public understanding of the concept of dietary energy and the various terms used to quantify its presence, which is likely to limit the utility of energy information provision requirements. The introduction of mandatory energy labelling should thus be accompanied by appropriate community education, and it will be critical for standardised serving sizes to be specified if ‘per serving’ terminology is used. Requirements for alcohol products to display nutrition information should ensure that consumers are not misled about product healthiness.

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Table 1: Sample profile (n = 83)

	n	**%**
Total	83	100
Sex		
Female	42	51
Male	41	49
Age		
18-30 years	28	34
31-50 years	26	31
51+ years	29	35
Location		
Metropolitan area	55	66
Non-metropolitan area	28	34
Drinking status^		
Meets low-risk guideline	27	33
Exceeds low-risk guideline	56	68

^ Low-risk guideline: no more than 4 drinks on any single occasion and/or no more than 10 drinks per week (National Health and Medical Research Council, 2020)

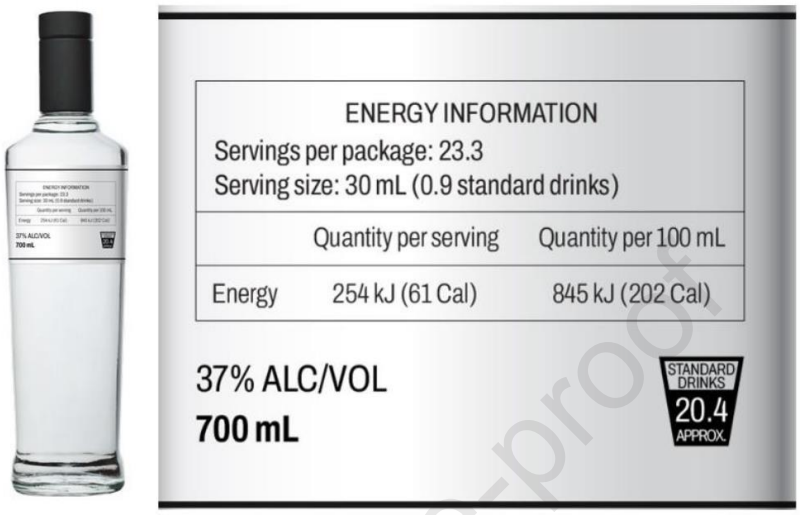

Figure 1: FSANZ draft energy information panel and corresponding product shown to participants during the focus groups (Food Standards Australia New Zealand, 2023a)

Figure 2: Example products with full nutrition information panels shown to participants during the focus groups

“There's just a lot of numbers and I just want to have a drink”: The challenge of communicating the energy content of alcohol products

Highlights

- Countries are increasingly considering mandatory energy labels on alcohol products
- Consumers generally support mandating the provision of energy information
- Consumers can experience difficulty understanding energy terminology
- Energy information in terms of standard drinks and servings is problematic
- Community education will be needed to optimise the benefits of energy labelling

“There's just a lot of numbers and I just want to have a drink”: The challenge of communicating the energy content of alcohol products

Ethical statement

Ethical approval for this study was provided by the University of New South Wales Human Research Ethics Committee (approval # iRECS4533). All participants provided informed consent.

“There's just a lot of numbers and I just want to have a drink”: The challenge of communicating the energy content of alcohol products

Declaration of interest statement

The authors declare that they have no conflicts of interest.