

# **STARTING WITH ZERO: INVESTIGATING CURRENT PERCEPTIONS OF ZERO PERCENT ALCOHOL**



By

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A thesis submitted in partial fulfilment of the requirements for the degree of Master of  
Commerce in Marketing.

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2023

## Abstract

This thesis takes a look at perceptions of zero percent alcohol. In investigating literature, it is found that there has been a lack of focus on researching the qualitative thoughts consumers have towards this alcohol alternative. Based on the dangers of regular alcohol, it would be useful if zero percent alcohol could be used as one of several solutions to problematic drinking. Therefore, this thesis takes shape around the premise of building this field of literature, and investigating perceptions around zero percent alcohol. In its efforts to do so, this thesis used qualitative interviews with traditional questions to gather in-depth information from those who participated in this study. It also used a projective technique, due to the intrinsic symbolic nature behind regular alcohol, and potentially zero percent alcohol. A thematic analysis was used on the data gathered, establishing several key themes. These themes were knowledge, symbolic meaning, drinking motives, and substitutability. Together, they explained the various factors that determined perceptions of zero percent alcohol. In analysing these areas in-depth, it was found that zero percent alcohol could not be a replacement for regular alcohol at present. Within the research findings, it became clear that zero percent alcohol was not considered as important as regular alcohol and was only useful for temporary substitution. It ultimately appeared that regular alcohol had physiological appeal, and deep symbolic meaning that subsequently decreased the value of zero percent alcohol. Despite this, it was also found that zero percent alcohol had favourable connotations when investigating its symbolic meaning with participants. From these conclusions, a contribution to literature was made through the outlining of perceptions of zero percent alcohol that both coincided with previous literature findings, and several that were unique to zero percent alcohol amongst other alcohol alternatives. This also led to suggestions for social marketers on how to facilitate use of zero percent alcohol, and rebrand it so that it might become a tool in addressing problematic alcohol consumption.

## Acknowledgements

This thesis was not even close to being an individual undertaking, with this only being possible for me due to the love and support I received from those around me.

Firstly I want to thank my parents. From the very first day I began my Masters, and was subsequently blown away by the work I had to do, you made sure to be there for me every step of the way. You made sure that the only thing I had to worry about was getting through the Masters courses and this thesis, and was properly taken care of. What's more, I truly valued your interest in my thesis, going as far as to read page upon page to make sure it did not sound like gibberish. I am certain that this thesis would not have been possible without you. Thank you, mum. Thank you, dad - And thank you to Max of course.

Next, thank you so much to my friends. If my parents kept my physical health in check, you kept my social health in check. At the end of many weeks, the main thing that kept me going was always being able to hang out with you guys. This was doubly so when I started to spend too much time working on my thesis, and you recognised how stressed I was, and forced me to get out of the house with you. Thank you for also putting up with all my complaining, and showing interest when I wanted it (And not showing interest when I did not). I consider myself very lucky to have the friends I do, every single one of you. Church.

A big thank you to my secondary supervisor Girish. A wonderful lecturer, and an even better person to converse with. When it came to writing or improving my thesis, you always had constructive feedback that was immediately obvious in how it would better my work. I am truly glad I got to work with you on this.

Last but certainly not least, a massive thank you to my primary supervisor Ann-Marie. I am sure you could write a thesis yourself on the complications I brought your way, yet you showed compassion that on multiple occasions that meant the world. Thank you for always being open to discussion, and explaining everything I did not understand, even if it was obvious. I am certain that this thesis would not be even close to the shape it has taken if not for your help, let alone been finished. Words cannot express how fortunate I feel that I was able to write my thesis with you.

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## Chapter One- Introduction

### 1.1 Problem Orientation

If one were to be having a night out with family, friends, and so forth, it might not be unreasonable for those involved to consider the consumption of an alcoholic beverage. Indeed, a drink with intoxicating qualities is not an uncommonly consumed drink - However, is this a good idea? Alcohol is a drink that has many issues, with harm from alcohol costing New Zealand \$7.85B per year due to its health debilitating and action inebriating effects (Cargiulo, 2007; Health Promotion Agency, 2022). These issues, of course, are also prevalent worldwide, with 2.3 billion people identifying as current drinkers globally as of 2016 (WHO, 2018). Analysis of international effects of alcohol finds its misuse leading to a myriad of concerning outcomes, ranging from negatively affecting mental health, to being a leading risk factor of premature death (Mekonen et al., 2017). As a result, the consideration of alternative consumption habits becomes necessary.

In the realm of alcohol alternatives, there are a number of options. These range from reduced alcohol drinks to non-alcoholics like soft drinks. However, these particular options have potential issues. For reduced alcohol, there is still some alcohol left within the drink, which can therefore still cause harm. This is even more likely when consumers are found to drink a higher quantity of such alternatives due it being perceived as healthier (Anderson et al., 2021; VicHealth, 2010), which is counterintuitive. In contrast non-alcoholic drinks have no apparent connection with regular alcohol, making it more difficult to use as a replacement. This ability to replace is particularly important in contexts that can potentially incur social rejection if one is not drinking regular alcohol (Rees & Wallace, 2015). In the face of these problems, it becomes a question of whether there is a better alternative for regular alcohol, that can help address problematic drinking behaviour. With this in mind, the researcher began looking towards zero percent alcohol. This drink category appeared to be a blend of both the drinks described above, potentially making it the best alternative for regular alcohol. However, as an attempt was made to verify this theory, it was found that no literature could be found on consumer perceptions of zero percent alcohol. Questions began to arise, such as would consumers actually consider drinking zero percent alcohol? More importantly, what do people even think of such a product? With no obvious answer, these questions set the basis for the current thesis.

Within the literature review in Chapter Two, it became apparent that there was a need to understand the deeper symbolic meaning behind zero percent alcohol, due to its connection with regular alcohol. This connection was found to be through drinking motives, the leading factors that affect alcohol use (Boyle et al., 2016; Bresin & Mekawi, 2021; Cooper, 1994; Merrill et al., 2014; Palfai et al., 2011). These motives encapsulate the mindset an individual has toward alcohol, and how they might approach its use. Unfortunately, this and other factors are not either mediated or utilized enough to attenuate improper alcohol use, with harmful use of alcohol showing no signs of reduction in the near future (Manthey et al., 2019). This research intended to find whether zero percent alcohol could have a similar connection to these motives, or otherwise provide a solution to more negative motives.

Another prominent area of concern was that while there appears to be an observable decrease in the percentage of alcohol drinkers (Scheffels et al., 2020), those that do drink are seen to be drinking higher volumes concurrently (Manthey et al., 2019). The volume of alcohol consumption, alongside patterns of drinking, are two dimensions that are shown to affect an individual's health (Rehm et al., 2009). Furthermore, these dimensions are shown to be intertwined with binge drinking behaviour, a particularly appealing activity for adolescents and young adults with high risk of harm both physically and physiologically (D'Alessandro et al., 2023). Zero percent alcohol drinks could possibly offer a solution for this global problem. If they are used to replace alcohol beverage consumption, they, by definition, almost entirely remove the offending element located within regular alcohol, and thereby the effects that follow. Nevertheless, before this is implemented, zero percent alcohol needed to be researched to find if consumers were receptive to this possibility.

## 1.2 Key Concept Definition

Before going any further, there is also a need to clarify what certain terms are perceived to mean within this research. In the literature several different replacements for regular alcohol exist, but in the case of this research, zero percent alcohol is the focus. In Table 1 this differentiation is made apparent.

**Table 1**

*Alcohol Replacements*

Concept	Description	Citation(s)
Zero-percent alcohol	A beer, wine, or spirit that meets the legal definition (In New Zealand) for something to be declared non-alcoholic, which is being under 1.15% ethanol by volume.	Sale and Supply of Alcohol Act 2012, n.d.
Reduced alcohol	A beer, wine, or spirit that does not fall below the 1.15% margin above but do contain less alcohol content than regular alcohol. This is typically for the purpose of reducing carbohydrates or ethanol per beverage consumed.	Chrysochou, 2014
Non-alcoholic beverages	This is used within literature to describe a beverage unrelated to alcohol, such as soft drinks or juices. There are instances where it is used to refer to low alcohol products, but these will be referred to as such rather than use the literature's wording.	Crockett et al., 2018; Mills et al., 2013; Tawfiq et al., 2021

After separating these terms, it should be apparent that investigating non-alcoholic drinks or reduced alcoholic beverages is not the same as researching zero-percent alcohol. It is for this reason that it also becomes important that these terms are not used interchangeably.

### 1.3 Research Objectives

Current literature gives some statistics on the consumption of zero alcohol beverages, specifically beer, but these figures are low at 2.6% (Anderson et al., 2020). Adding to this, sales figures of alcohol show that both sales of alcohol AND zero alcohol beverages are increasing (WHO, 2023). This implies that instead of zero alcohol beverages being used as a replacement for alcoholic beverages, it is being used as an addition. Such a finding reduces the possibility of zero alcohol beverages being used as a replacement to alcohol and subsequently decreasing alcohol harm overall. It further implies that there are underlying influences for consumers that are creating barriers to the use of zero alcohol beverages as a

replacement to alcoholic beverages. Investigation into existing literature reveals that no research has studied consumer perspectives on zero alcohol beverages. It is this finding that has led to the current study, which seeks to now begin a discussion on the matter. The research questions that guide this research are as follows:

- What are perceptions of using zero percent alcohol as a replacement for binge drinking?
- How do the symbolic meanings of zero percent alcohol/regular alcohol influence their consumption?

#### 1.4 Contributions of this study

As an academic contribution, this thesis begins the study of zero percent alcohol. With no work being found in the researcher's literature review, it became clear that groundwork for this field needed to be put in place. This was also thought to help extend alcohol alternative literature in general, and even have the potential to further understandings of regular alcohol. Building on reduced alcohol literature, one of the main findings was that there were similar perceptions held towards both categories. One such example was health related benefits of drinking an alcohol alternative. Some negative aspects were also shared, such as taste, a particularly sensitive area regarding how closely it resembled its respective regular alcohol counterpart. These findings primarily indicated that reduced alcohol literature and zero percent alcohol did not differ significantly within consumer perceptions, therefore lessening the need for further research on the latter. However, it was also found that there were certain perceptions solely linked to zero percent alcohol. One such example was cost, in which participants indicated that zero percent alcohol appeared unaffordable, and illogically priced. Another important finding was that the symbolic meaning behind regular alcohol was described to have significant impact on the acceptance of zero percent alcohol in the general population, and to a lesser extent for participants themselves. Overall, these findings both confirm previous findings in other alcohol alternatives and discover unique characteristics within zero percent alcohol.

Beyond investigating an unresearched field of literature, this study also wished to provide insights into how zero percent alcohol could be implemented in social marketing. Social marketing has a purpose of using marketing efforts to improve society, rather than simply sell

a product for personal gain (Kubacki et al., 2015). Based on the possible benefit of zero percent alcohol consumption in place of regular alcohol, it was hoped that it could assist social marketing efforts in addressing problematic drinking. Initial findings suggested that this was not possible due to participants not being particularly favourable towards zero percent alcohol. However, it was also found that they weren't opposed to it either, and it was instead that there were several barriers that discouraged them from drinking it. To resolve this, several potential solutions were suggested, based on these perceived barriers. The first suggestion involved several policy changes, that would reduce the price of zero percent alcohol, and improve the clarity of information on the drink category. In addition to this, it was suggested that social marketers need to reframe zero percent alcohol. Both as a result of the barriers to consumption, and misconceptions that had been made, participants did not consider zero percent alcohol a drink targeted at them. Furthermore, social norms of regular alcohol were found to be negatively impacting perceptions of zero percent alcohol, necessitating the use of reframing even further. Overall, while zero percent alcohol did not appear ready to be immediately used to address problematic drinking, it was considered possible in the future with the assistance of social marketing efforts.

### 1.5 Thesis Overview

The structure of this thesis is as follows:

Chapter Two is a collection of relevant literature relating to zero percent alcohol. This begins with a review of information on regular alcohol, for the purpose of understanding more about what exactly zero percent alcohol is an alternative for. In this investigation, it is made clear that motives are a crucial part of drinking behaviour. As a result, it is considered necessary to research symbolic meaning, which appeared deeply intertwined with alcohol consumption, and theoretically zero percent alcohol as well. After this reduced alcohol literature is studied, as a replacement for the non-existent zero percent alcohol literature. After these were established, a review is conducted, finding a research gap that provides the objective for the following research.

Chapter Three details the research methodology for this thesis. This starts by outlining the researcher's theory of knowledge, and how it is communicated. Next, it details the various methodological choices for this study, with justification on why they were chosen. This included (but is not limited to) the choice of qualitative interviews, and the projective

technique used to investigate symbolic meaning. Following this, how interviews were carried out, and how participants were gathered is established. Finally, how the analysis will proceed, and how trustworthiness is assured is also outlined.

Chapter Four covers the findings of this research. In doing so, it establishes several key themes that were discovered in the data analysis and provides their context. These themes served to highlight the primary factors contributing to perceptions of zero percent alcohol. These themes are further broken into subthemes, which contain various points of interest within each major theme. Within these subthemes are supporting text units from the data to back the claims of the researcher.

Finally, Chapter Five takes the findings of Chapter Four and puts them in the context of the research objective outlined in previous chapters of the thesis. This involved using said findings to answer the research questions, and thereby consider perceptions of zero percent alcohol. Next, the theoretical and managerial implications of these findings were assessed, suggesting future research and goals for zero percent alcohol. Finally, the limitations and directions for future research were outlined, followed by a final conclusion.

## Chapter Two- Literature Review

### 2.1 Introduction

To investigate the literature of zero percent alcohol, there are three focal points of the current analysis. The first area to be looked at is the negative effects of alcohol and why people still drink. By understanding the ramifications of drinking regular alcohol there can be a better understanding of why a drink with less to no alcohol is more beneficial. Additionally, knowing why consumers choose regular alcohol is informative of both what zero percent alcohol needs be able to emulate if it is to replace it, and the symbolic meaning it potentially holds for them.

The second area to consider then, is symbolic meaning, which dictates how an individual perceives alcohol or zero percent alcohol. By gaining an understanding what symbolic meaning is, and what it means in the context of alcohol, a better picture of the current image of zero percent alcohol can be formed. More precisely, symbolic meaning examines below the surface level, and can allow a deeper look into the culture, values, and perceptions of the general public (Zaidel, 2020). This can then show whether consumers would consider it a possible replacement, even if they cannot properly articulate what they like and dislike about the product explicitly.

The third section of this review searches for zero percent literature, and in finding none it instead investigates a similar category of reduced alcoholic drinks. This section looks into current interest in these similar drinks, an investigation of motivations for drinking them, and subsequently perceptions of them. Finally, these reduced alcohol drinks, in place of zero alcohol drinks, are considered for their viability as a safer alternative for regular alcohol.

### 2.2 The Dangers and Motives of Drinking Regular Alcohol

Palmer (2010) outlines three forms of alcohol-induced harm (intoxication, toxicity, and dependence) which provide a way of categorising alcohol not only in physiological effects but also temporally. Intoxication is more relevant in the short term, which involves alcohol poisoning and accidental injury or assaults that happen at the time of consumption (Vonghia et al., 2008). The toxicity of alcoholic drinks causes problems in the longer term, where chronic health issues and other cumulative effects arise (Rusyn & Bataller, 2013). Alcohol

dependence refers to an individual finding it difficult to stop drinking and is likely to incur these longer-term side effects (Batra et al., 2016). These negative effects are typically associated with binge drinking, where quantity and frequency consumed are key determinants in their risk of harm (Palmer, 2010).

### 2.2.1 Binge Drinking: One of the Most Problematic Forms of Drinking

Binge drinking can be defined as five or more standard drinks per session for men and four or more standard drinks per session for women (Cargiulo, 2007; D'Alessandro et al., 2023). One of the dangers of binge drinking is that drinking substantial amounts infrequently is found to be more of an issue than drinking lesser amounts more often (Palmer, 2010). Binge drinking also has potential to worsen, leading to alcohol dependence (and alcohol related problems), where drinking becomes difficult to stop (Wilmott et al., 2019). Such alcohol related problems are echoed through several studies that confirm both internal and external harm done as a result of dangerous drinking (Courtney & Polich, 2009; Jennison, 2004; Naimi et al., 2003). One of the largest issues with drinkers is their tendency to overestimate how much a standard drink is, thereby underestimating the levels of consumption (White & Hingson, 2013). This is accompanied by a decrease in ability to self-regulate or control impulses as one drinks more alcohol (Kuntsche et al., 2017), potentially leading to a continued consumption of dangerous amounts of alcohol.

The culture of drinking is an issue worldwide, particularly around binge drinking (Siqueira et al., 2015). For instance, in New Zealand it is the most used drug (Palmer, 2010). The culture around binge drinking encourages such behaviour under the guise of having an enjoyable experience and is often accompanied by a lack of awareness of the risk of doing so (Kuntsche et al., 2004). The age group reported as most at risk are young adults, ranging from 18 to 29 years of age (Kuntsche et al., 2004), however there is also reports of a decline or slower rate of growth in more recent years, with older demographics showing significantly higher levels of binge drinking (Grucza et al., 2018). It is also found that men are at higher risk of encountering alcohol related problems, including mortality rate (WHO, 2018). Furthermore, in the case of alcohol use disorders, Europe and America are found to have the highest levels in the world (WHO, 2018).

Ethnicity and race are also found to have varying levels of alcohol consumption and consequences (Mulia et al., 2009). For instance, Delker et al. (2016) find in their (United



States) study that White respondents have the highest level of alcohol consumption, however Native American and Black respondents were most vulnerable to alcohol related consequences. Minority ethnic or racial groups can also have different reasons (to non-minority groups) for drinking, like coping with sociocultural reasons, such as discrimination and stigma towards the minority group they are part of (McCabe et al., 2019). Additionally, those with higher household incomes and educational levels were found to binge drink more commonly, however those lower in both categories were found to binge drink more frequently among those binge drinking (Kanny et al., 2018). Location of alcohol retailers is also shown to have some effect on drinking, with higher density of these alcohol outlets being associated with higher alcohol consumption (and thereby more binge drinking) and related problems (Day et al., 2012). New Zealand, that observes similar ethnic group trends in drinking to America, finds that, particularly for Māori and Pacific people, minority groups are more likely to have alcohol outlets located nearby, or targeting their demographic (Ayuka et al., 2014).

Regardless, within the young adult group, tertiary students, particularly males, are reportedly the main consumers of alcohol (Jennison, 2004). Tertiary students are shown to consistently overestimate the drinking of their peers (Lewis & Neighbors, 2006), or be pressured by them, directly or indirectly to consume more alcohol (Kuntsche, 2017). Additionally, tertiary students have the tendency to underestimate problematic drinking in comparison to non-bingers or those who do not drink (Kuntsche, 2004). There is also evidence to suggest that many students will drink beyond the binge threshold of four or five standard drinks (White & Hingson, 2013), increasing the potential that they will encounter the consequences of dangerous drinking. Nevertheless, whether in tertiary education or not, binge drinking can and does cause major harm. Furthermore, drinking behaviour is not just linked to demographics such as age or location, but also can largely be tied to a variety of different drinking motives.

### 2.2.2 The Motives of Drinking Alcohol

After considering all the negative side effects of alcohol, it begs the question of what exactly are the motivating factors that drive people to drink despite the danger. Cooper (1994) conceptualises a four-factor model that considers what these motivations are. Drinking motives can either be positive or negative, with positive relating to enhancement and social motives, and negative relating to coping and conformity motives (Cooper, 1994). People

will use alcohol to enhance positive feelings when they are tired or bored, or to reduce negative affect when they are anxious (Cooper et al., 1995).

Enhancement and coping motives are both internal to an individual and assume it has a direct impact on emotions, whether that be to pursue a feeling with enhancement motives, or avoid something with coping motives (Kuntsche & Cooper, 2010). One way these motives differ is on quantity drunk, with enhancement motives involving heavy levels of drinking (Bresin & Mekawi, 2021), particularly if an individual is drinking to get drunk (Kuntsche et al., 2005). In fact, enhancement motives appear to relate to higher levels of alcohol use than any other motive, perhaps due to the high alcohol intake increasing tolerance, and thereby meaning that more must be drunk to experience desired feelings (Bresin & Mekawi, 2021). One instance of such behaviour is pre-loading, which is the consumption of alcohol prior to attending licensed premises, with the intent of achieving drunkenness quickly, for cheap, among other reasons (Foster & Ferguson, 2014). Regardless, for individuals who align with enhancement motives, they will find other facets of life less meaningful in comparison to the positive affect they receive from alcohol (Palfai et al., 2011).

In contrast, those who have coping motives are found to drink less, yet encounter more direct alcohol consequences as a result of their consumption habits (Merrill et al., 2014). More specifically, for enhancement motives alcohol related problems are a result of alcohol use, whereas coping motives still possess said problems even when alcohol use is controlled for (Grant et al., 2009). This discrepancy appears to be tied to the specific reason an individual has for a coping motive for drinking (O'Hara et al., 2015). Anxiety is one such reason, where alcohol may act as a social lubricant, or help one cope with uncomfortable feelings (Buckner & Shah, 2015). Furthermore, they may lack the self-efficacy to remove themselves from the setting or behaviour, and thus from drinking dangerously (Lewis et al., 2008). Another reason could also be depression, where drinking becomes a form of escapism (Kuntsche et al., 2005), and may even lead to concerning amounts of drinking in a solitary setting (Gonzalez et al., 2009; O'Hara et al., 2015). Evidence of such behaviour is evident in relation to the COVID-19 pandemic which, in the wake of uncertainty, fear, and stress, led to increased alcohol consumption levels (Wardell et al., 2020). Nevertheless, coping (and enhancement) motives clearly reflect a particularly dangerous form of drinking.

Social and conformity motives are external to the individual and assume that drinking is a crucial part of a party-like experience for social motives, or something that would be looked down upon if not done for conformity motives. Boyle et al. (2016) provide an example of these motives, with social media creating a precedent among many tertiary students to consume alcohol to have a good time, and also to fit in, or be doing the same as others within their online social circle. It becomes evident here that the social and conformity categories differ on the afore-mentioned positive and negative aspects of drinking motives.

For social motives, drinking alcohol serves as a means of socialisation, and creates some perceived level of equality due to the inebriating nature of the product (Fabrizzi et al., 2017). Given this reasoning, there is also a lower level of danger around social motives, due to higher levels of drinking tied more to the short term, when establishing relationships, and lessening in the long term when there is less perceived chance of social rejection or drinking is less of a focus of interactions (Bresin & Mekawi, 2021; Fabrizio et al., 2017). That said, it should be noted that social norms are one of the strongest indicators of young adult drinking, particularly when these individuals misperceive the rates at which their peers are consuming alcohol (Lee et al., 2007).

In similar fashion, conformity motives also have relevance to social rejection, only to a higher degree (Rees & Wallace, 2015). This echoes coping motives, in which conformity motives find common ground through the effect of anxiety on drinking decisions and perceptions (Kenney et al., 2013). However, there is a likelihood for conformity motives to weaken with maturity (Lyvers et al., 2010), likely due to a natural growth in self-efficacy (Lewis et al., 2008). Additionally, conformity motives are clearly linked to social occasions, as seen during COVID-19, where the resulting isolation from social settings saw a decrease in alcohol consumed for social and conformity reasons (Graupensperger et al., 2021). Regardless, after consideration of all four drinking motives, they consistently appear to be rooted in identity and symbolic meaning. More specifically, whether it is a desire to feel a certain way, or feel more comfortable in a social setting, motives for alcohol consumption reflect the current or aspired self (McCreanor et al., 2005).

### 2.2.3 Addressing the Issues with Drinking Motives

The main issue with these motives appears to be the degree of self-efficacy an individual has (Witkiewitz & Marlatt, 2004). This is due to self-efficacy regarding how confident and

capable an individual feels in their ability to slow, limit, refuse, or resist drinking alcohol (Buyucek et al., 2019). The New Zealand Ministry of Education (2014) considered this in the context of students, and note that self-efficacy is gained when they realise the actions they take can make a difference. It is suggested that avoiding alcohol or moderating its intake could be achieved with the correct tools being made available to individuals in need. Group pressure can be one instance of low self-efficacy, where competition, conformity, hedonism, and opportunity cost receptiveness (which acts as a buffer) all play a role in wanting to drink when in a group (McAndrew et al., 2019). Group pressure is also relevant in a study by Bodnár et al. (2021), where the placebo effect of expectations and social influence are considered while drinking alcohol. This study finds that individuals can consider themselves less drunk in a social setting than they actually are (Bodnár et al., 2021). This social influence could be dangerous, pointing to the potential for people to over consume without realising.

Actions such as making next-day commitments top of mind or removing items that could be used to compare drinking rates can help put larger weight on individual's circumstances and not being swayed by the group (McAndrew et al., 2019). Various sources need to come together to inform, protect, and offer help to those unaware of the consequences, or not aware of alternatives (New Zealand Ministry of Education, 2014). This could range from teaching people at an early age how to interact with alcohol, to restricting the ability to purchase alcohol so easily (Siqueira et al., 2015). In contrast to the latter, one solution could even be to provide more alternatives to alcohol, which is where zero percent alcohol could find its place.

This being said, the suggestion of zero percent alcohol as an alternative does not necessarily work in the case of the previously mentioned coping motives. Those that have this type of motive find it can be easy to relapse, and this can potentially be caused by something as simple as walking past a bar that was the favourite of the individual trying to avoid drinking (Witkiewitz & Marlatt, 2004). If this is the case, it could mean that zero percent alcohol may contain some level of risk when used as a replacement, due to its similarity to regular alcohol. More specifically, in an attempt to drink zero percent alcohol as a replacement for regular alcohol, it may become a gateway effect, in which it reminds them of their perceived relief from troubles when drinking regular alcohol, and then influences them to drink it again. An additional issue involves social phobia, in which drinking regular alcohol may be treated as a coping mechanism for anxiety-inducing situations (Abrams et al., 2001). This type of drinking is tied to the psychological effects of alcohol (Buckner & Shah, 2015), and is of

course lacking in zero percent alcohol, due to it lacking the ingredient that causes such effects.

Despite these concerns, it could perhaps be more feasible for something like zero percent alcohol to be considered an option if coping motives are addressed through increasing an individual's self-efficacy around controlling their drinking behaviour (Witkiewitz & Marlatt, 2004). In fact, some alcohol related interventions already address problems with drinking in relation to this, albeit more so in the context of helping people achieve moderate levels of drinking (e.g., Buyucek et al., 2019; Ministry of Education, 2014). Nevertheless, an increase in self-efficacy could mean that the individual would be more capable of preventing themselves from relapsing into excessive drinking habits. Buyucek et al. (2019) even suggests that providing more zero percent alcohol and non-alcoholic drink options would help in moderating drinking behaviours.

After considering alcohol and the motives people have for drinking, it has been established that while alcohol has ill-effects, this does not offset its appeal. However, it might not just be due to the enjoyment of a social motive with no strong negative connotation, but also could be due to enhancement, conformity, and coping motives. These motives appear to be rooted to some degree in a lack of self-efficacy that prevents individuals from feeling they can avoid alcohol and be fine or still enjoy themselves. So, while zero-percent alcohol has been considered as a solution to reduce binge drinking behaviours, this perception from drinkers of regular alcohol entails that zero percent alcohol would be less desirable (Chrysochou, 2014). Nevertheless, aside from with the coping motive of drinking, these issues have the potential to be offset by restricting factors such as items used in relation to drinking competitively, or providing alternatives – and this may be where zero percent alcohol can find its place.

### 2.3 The Influence of Symbolic Meaning

In the earlier consideration of the motives of drinking alcohol, it becomes clear that there is often more to the activity than meets the eye. This influence takes the form of symbolic meaning, which, potentially unbeknownst to them (Wattanasuwan, 2005), affects an individual's thoughts and feelings towards an object of interest (DuBois et al., 2021). On a more fundamental level, symbolic meaning is an evolutionary development that allows for greater group cohesion, bonding, and survival beyond what is capable with language alone

(Zaidel, 2020). It allows for community to prosper, and for culture to develop, through a deeper form of communication, that are inherent in nature (Zaidel, 2020). This development of culture centres around shared meaning on what is subjectively good taste, what has value, and so forth (Charters, 2022). It is here that symbolic meaning impacts beliefs, perceptions, and attitudes that henceforth determine how an individual perceives and interacts with such products as regular or zero percent alcohol.

### 2.3.1 Constructing the Self and Fitting in

When it comes to consumer culture, consumption is an integral part of everyday life that is not only undertaken based on a product's utility, but also its symbolic meaning (Wattanasuwan, 2005). This is, in part, attributed to a product's ability to help construct identity, help one fit into a group or community, and improve oneself in the eyes of others (Jacob et al., 2020). This can become particularly important when entering new social spaces or places, which, particularly for younger people moving out of their parent's home, can make changing consumption habits required if they want to fit in, even if they are harmful (Wills, 2005). This reflects the social and conformity motives of drinking, where the decision to drink alcohol determines (or is perceived to) whether one will fit in at certain social events (Cooper, 1994). Binge drinking also is affected by this, with perceptions of drinking expectations potentially leading to higher levels of consumption (Bresin & Mekawi, 2021; Fabrizzi et al., 2017). Bagozzi et al. (2021) further this under the term social identity maintenance, in which this behaviour is based on efforts to enhance one's own self-worth, and also the welfare of members of the group, through adhering to group norms and goals. Alternatively, consumption could also be performed with the intention of self-enhancement or self-verification, in which one has the intention of constructing a concept of oneself (Bagozzi et al., 2021).

The improvement of oneself is often achieved through the use of status symbols. These products that bequeath status both express identity and boost image of the consumer (Liu et al., 2021). In this context, symbolic meaning behind the product changes its worth to enhance it beyond its pure utility. It can also mean an increase in perceived credibility and uniqueness, thereby increasing personal value attributed to the object of attraction (Dwivedi et al., 2018). An example of this is souvenirs, wherein they prove more valuable due to their stronger ability to enhance a vacation and hold memories better than the same object found online for cheaper might (Yan et al., 2022). For alcohol an exemplar of status is found in drinking

among males, where drinking exorbitant amounts (and tolerance) can be seen as masculine, and consequently meaning dangerous levels of drinking are undertaken (Iwamoto et al., 2011).

Alcohol, more specifically wine, has strong roots as an indicator of status and culture, beyond simply economic value (Charters, 2022). Moreover, in China there is a clearly observed symbolic role attached to wine, with it being perceived as a marker of high social status and possessing health-giving properties (Pettigrew & Charters, 2010). This sort of view can lead to seemingly irrational consumption, where instead of choosing goods or service for oneself, they may be chosen so as to be perceived as possessing socially desirable traits (Fennis & Pruyn, 2007), and irrespective of personal preference (Pettigrew & Charters, 2010). It should be noted that socially desirable traits do not necessarily lead to healthy behaviour or the consumption of luxury goods. This is shown in a study by Ridout et al. (2012), which finds young people creating an online culture that normalises binge drinking and encourages each other to present it as part of their identity if they wish to fit in with their peers.

### 2.3.2 The Conflicting Nature of Symbolic Meaning

While symbolic meaning can pull consumers towards certain types of consumption, it can also push them away from others, particularly when they do not fit the lifestyle or self-image they desire (Wattanasuwan, 2005). The self-image congruency an individual has with a product or brand can significantly affect their choices, perceptions, and attitude towards it (Jacob et al., 2020). Consumers want to be able to express themselves through brands and their products (Bagozzi et al., 2021), thus anything that conflicts with their intended self-image can potentially be rejected (Stead et al., 2011).

Authenticity is one example of a criteria that plays a role in this subjective valuation. In their desire to improve themselves or fit in, some consumers may take short-cuts due to financial constraints, lack of availability, or other constraining factors, and choose a substitute or even a counterfeit (Gong et al., 2022). In this scenario, those who participate in consumption of the ‘proper’ product or brand may look down on this behaviour as disingenuous and thus will not consider the individual to be part of the in-group (Lehman et al., 2018). Connecting this to the current study, there is potential that a product such as zero percent alcohol may be perceived as an inauthentic version of regular alcohol.

Another potentially problematic outcome of symbolic meaning is attachment. DuBois et al. (2021) make this evident in their study of an installation of an environmentally protective infrastructure (cooling towers attached to a long-standing coal-fired power plant) in a community, in which a number of people saw it as visually disruptive and took a more subjective stance that did not account as strongly for the benefits of the object of change. This can also become a problem when considering whether to repeat a purchase, or switch to something new. Inman and Zeelenberg (2002) found that if there is a refusal to switch, when there is sufficient justification for doing so, something going awry will cause more regret than if the individual in question had in fact switched. This behaviour is attributed to it being perceived as easy to maintain behaviour rather than change it (Inman & Zeelenberg, 2002). In other words, attachment to an object has potential to affect rational decision making. Within the context of the current study, consumers may see too great an opportunity cost in the consumption of zero percent alcohol when they do not perceive any problem with regular alcohol.

These potential threats to rational decision making can potentially be detrimental to consumers. Stead et al. (2011) provide evidence of this, finding that adolescents would forgo eating healthy due to wanting to conform and fit in with peer groups. Wills (2005) echoes this, revealing a preference to fit into a new culture or environment often superseding desires to maintain healthier lifestyles. Palmieri et al. (2020) look at psychotropic drugs and find the decision to use or not use prescribed drugs can differ immensely, ranging from being seen as a source of comfort and escapism to a reminder of distressing memories. Perceptions of drugs as a source of alleviation from negative feelings is reminiscent of the coping motive of drinking alcohol, wherein a concerning attachment is made to a potentially dangerous product (Buckner & Shah, 2015; Cooper, 1994). It is also these more positive views that can lead to a reshaping of the concept in a consumer's mind, which Guggenbühl (2008) investigated and found drugs and the surrounding culture glamorised, particularly by adolescents who saw it as a way to individualise themselves and become an 'adult'. Once again, this is similar to the consumption of alcohol, which is seen by young adults and teens as a marker of adulthood, due to such milestones as being able to buy alcohol or enter pubs (Wills, 2005). Additionally, these adolescents may indeed be aware of the dangers of this behaviours on a theoretical level, but will ultimately struggle to accept this on an emotional level, due to their strong desire to establish their own distinct self (Guggenbühl, 2008).



The desire to find and consume products that represent the perceived or desired self can also lead to strong negative reactions when the two are incongruent (Hegner et al., 2017). Whether it is due to undesired trait, group, or trend related reasons, the object of dissatisfaction is actively avoided (Stead et al., 2011) or discouraged from doing so (Pettigrew, 2006).

Alternatively, the negative reaction could be in the form of hate, which can lead to a desire in the consumer for revenge for any perceived damage caused to themselves and their image (Zarantonello et al., 2016). This can be due to people outside the target market encountering the brand and perceiving brand awareness efforts as intrusive and irrelevant, forced upon an audience that does not care for the relevant product (Petty, 2000). Essentially, if a consumer perceives a product as irrelevant to them, this is likely not a view that will change through insistence, but rather only serve to further hinder any future positive interaction with it. In that case, this type of person would have to be delicately considered in any attempt to introduce them to zero percent alcohol, or as to whether they can be considered a potential consumer at all.

### 2.3.3 More Than Just a Drink

In an effort to understand what people might think of alcohol, or zero percent alcohol, investigating its symbolic meaning appears to be an effective measure of bypassing the superficial, and gathering more meaningful data. In fact, a deeper look into the history of alcohol use appears to show an enduring symbolic nature throughout the ages. Jellinek (1977) delineates a strong spiritual and religious-based culture around alcohol, influenced by the psychological properties that appear to empower and heal the drinker, or associations with gods of alcohol, who embodied ideal characteristics that were thereby imposed upon alcohol in return. Friendship and bonding are examples of such characteristics, and these in particular have been perceived to be synonymous with drinking in many a culture over many years (Jellinek, 1977).

In different times and cultures, perceptions of alcohol's purpose, or symbolic meaning, change to match. This is apparent in the development of alcohol from a symbolic to a utilitarian function in more recent decades, as greater supply and affordability acts to bolster the use of alcohol less for special occasions and more for such reasons as tension relief (Jellinek, 1977). That view is reflected in the current drinking culture, which sees a larger amount being consumed, and an escalated desire to drink in order to become inebriated (Järvinen & Room, 2017). There also exists a perpetuated masculine image attached to

alcohol, which views the amount one drinks as a show of how manly a male is to other men (Lemle & Mishkind, 1989). As well as the amount consumed, this gendered nature of alcohol consumption also has influenced the geographical space for consumption, and the type of alcohol consumed (Willott & Lyons, 2012). In the 1970s there began a change away from this image to accommodate for women and consider them part of the market due to a mix of a rise in women drinking and repositioning of gender identities, however, there still exists some lingering bias (Willott & Lyons, 2012). There is also a stereotyping around certain consumption of alcohol in that it reflects a poor lifestyle, perhaps where one drinks to cope with everyday life (Doron, 2010).

These subjective perceptions that discourage certain people from drinking can also encourage others to do so. Take those between the ages of 18 to 24 who are reported to be the most susceptible to heavy drinking (Hustad et al., 2014). For those of this age and younger, drinking is correlated with group cohesion and popularity, which enhances its perceived necessity to be consumed (Berends et al., 2016). Such views are not only limited to those in this age bracket, with parents also considering alcohol an important instrument for their children in bonding with others in relevant situations, or harmful to social wellbeing if avoided (Berends et al., 2016).

As is shown by the motives of drinking, perceived ideal behaviours and judgement from others about oneself appear to be major influencing factors in an individual's drinking behaviour (Hustard et al., 2014), making switching away from regular alcohol more about how it might affect relations with others than personal enjoyment. Furthermore, decisions to drink alcohol appear to have ties to such factors as misperceptions of others' drinking levels (Kenney et al., 2017), or glamorisation of drinking in popular culture such as movies or advertisements (Okoro et al., 2004). Despite this, the norm of drinking itself is also subject to change. While previous research into the history of alcohol and its symbolic meaning suggests a constant importance in its consumption, there is also a noticeable increase in individuals who focus on a health-oriented lifestyle that alcohol may not fit into (Scheffels et al., 2020). For some, the COVID-19 lockdowns furthered this reframing of values, with moderate and low-level drinkers being given the opportunity to reconsider consumption behaviours, and some drinking less as a result (Nicholls & Conroy, 2021). This being said, there still exists a juxtaposition between consumers who appear to consume alcohol to satisfy perceived norms in fear of alienation, and the other type of consumer who drinks alcohol out

of enjoyment. Ultimately, perceptions, regardless of what they are or how they form, drive such behaviour as problematic drinking, and it is for these reasons that understanding the symbolic meaning of zero percent alcohol becomes crucial to determining its validity as a replacement for regular alcohol, and by extension binge drinking.

#### 2.4 Zero Percent Alcohol, Non-Alcoholic Beverages, and Reduced Alcohol

After reviewing the literature, it was found that there was some existing research on reduced alcohol beverages. However, most of these were not on zero percent alcohol, the focus of the research (Sale and Supply of Alcohol Act 2012). While not the same as zero percent alcohol, reduced alcohol is a form of alcohol that offers an alcoholic beverage with some degree of alcohol removed, which is the closest thing to actual zero percent alcohol that happens to have reasonable literature on it (Kalinowski & Humphreys, 2016; Stevens et al., 2022). There does exist some literature on zero percent alcohol that reveals issues for certain cultures and religions, but none that directly consider perceptions or symbolic meaning of zero percent alcohol to the consumer (Chan et al., 2012; Lever & Fischer, 2018).

The relevant literature primarily involves quantitative data or mostly production based. A study by Anderson et al. (2020) researched British household shopping data in this field from 2015 to 2018 and found that there is some interest in reduced or zero percent alcohol drinks with its availability reducing overall purchases of grams of alcohol by between 2.6% and 3.9%. This change was observed separately in reformulation of existing alcoholic products and newly created ones and initially found a lack of interest (Anderson et al., 2020). From there it slowly climbed, with a higher interest over time for reformulated existing drinks (Anderson et al., 2020).

The preference for existing drinks is likely due to already established companies being able to use consumer familiarity with their brands to maintain interest in their zero percent or reduced alcohol product lines (Johnson & Russo, 1984). Unfortunately, Anderson et al. (2020) finds that 71% of the purchases of reduced or zero percent alcohol were of only one product. This consumption data suggests that zero percent products either do not have much of an appealing range of products, or that consumers are unwilling to purchase beyond certain types of zero percent alcohol. In the case of the latter, zero percent alcohol purchases may be driven by familiarity with the parent brand that sells a more familiar alcohol product,

primarily with the intent of mitigating the risk of regret (Inman & Zeelenberg, 2002) or social exclusion (Su et al., 2017). Incidentally, for zero percent drinks that cannot capitalise on existing brand markets, they would need to provide information on the attributes of the product most relevant to preference judgements to supplement it (Johnson & Russo, 1984).

Additional research further investigates preferences and notes that purchases of zero and reduced alcohol beer were generally by those who already bought the most alcohol, those of higher income, and those of a younger demographic (Anderson et al., 2021). Alternatively, a study by VicHealth (2010) that studied the consumption of low carbohydrate beer in the Australian population found that drinkers of the beverage were on average 39. Between these studies, there does not seem to be a clear demographic that drinks alcohol alternatives in the literature. One conclusion that can be drawn is that people who drink these products tend to drink a higher quantity than they would of regular alcohol due to the perceived health benefits (Anderson et al., 2021; VicHealth, 2010).

#### 2.4.1 Motivations for Drinking Reduced and Zero Percent Alcohol

In addition to the degree of interest shown for reduced and zero percent alcohol drinks, it is questioned what actually motivates consumers to drink one of these products. As hinted at earlier on, several health benefits are available when compared to regular alcohol.

Chrysochou (2014) considers light beer (or otherwise referred to as low alcohol beer) and refers to such drinks as a way of avoiding getting drunk, and managing health in relation to weight, due to the decreased caloric content as opposed to regular alcohol. The lower degree of ethanol also means that recovering alcoholics and people in similar positions would find it quite difficult to regress due to alcoholic content alone (Schaefer, 1987). It can also be noted that the toxicity of alcohol that leads to long term medical issues is significantly less for reduced alcohol substitutes (Schaefer, 1987). One example is seen in a study by Serafini et al. (1998) in a look at alcohol-free wine. Red wine is already seen to have some protective capacity through its ability to increase antioxidant capacity in humans, and the study found that alcohol-free red wine was particularly effective, showing superiority over alcohol-free white wine or water (Serafini et al., 1998). It should be noted however that this benefit is only based on moderate levels of consumption (Serafini et al., 1998).

Another example of this is seen in the case of alcohol-free beer, where it is observed that removing the alcohol from the drink allows for the potential utilisation of compounds and

organisms within beer to minimise the harmful effects while maximising health benefits that are like that of wine (Mellor et al., 2020). However, making these changes comes at the risk of potentially affecting flavour and shelf-life (Mellor et al., 2020). Additionally, as with alcohol-free wine, moderation is of importance for these benefits, and this would need to be addressed more seriously within a beer industry where drinking in large quantities is more common (Mellor et al., 2020). Regardless, these and the other briefly noted health benefits are particularly welcomed by consumers as they show an increasing interest in healthier foods and beverages (Bucher et al., 2018). Certainly, there could be even more benefit to reduced percent or zero percent alcohol, but whether these benefits outweigh the adverse effects is something that requires more research before being used as a promotional feature (Holman & English, 1996; Mellor et al., 2020).

#### 2.4.2 Consumer Perceptions of Reduced and Zero Percent Alcohol

Consumer opinion on reduced alcohol and zero percent beverages is controversial. As touched upon earlier, consumers enjoy light beers for their healthier properties, and their low-calorie content that is better for weight management (Chrysochou, 2014). However, another side to this is that the flavour of these beverages is lacking in comparison to their more alcoholic counterparts (Chrysochou, 2014). While there is widespread acceptance of light beer, there remains the issue that for some, this issue with taste prevents them from consuming this healthier option (Chrysochou, 2014). For reduced alcohol wine there has been hesitant acceptance, with the minority showing acceptance of it worldwide (Bucher et al., 2018). However, Saliba et al. (2013) conducted a study and found that an initial acceptance rate of 16% for reduced alcohol wine could be raised to up to 40% if the taste were closer to that of regular wine. It was also found that respondents were not familiar with the actual alcohol content of the wine they were drinking, let alone that of reduced alcohol wine, which implies a need for better education on these products (Saliba et al., 2013).

One of the problems consumers appear to have with reduced alcohol drinks is the taste – but at the same time it does not seem to be that simple. Segal and Stockwell (2009) assessed consumer judgment in an experiment which had participants rate an unmarked regular beer against an unmarked reduced alcohol beer. It was found that participants could not easily distinguish the two from each other and enjoyment of both was equal (Segal & Stockwell, 2009). There was a significant observation from participants of a difference in quality, preferring the regular alcohol, however many could not correctly identify the reduced

condition, showing that alcohol content was not the issue (Segal & Stockwell, 2009). Another study by Bernstein et al. (2016) researched placebo alcohol (in the context of underage drinkers) and whether participants would believe it was alcoholic when not told as such. This found participants believing the non-alcoholic drinks were alcoholic (Bernstein et al., 2016).

An additional study by McLaughlin (1988) investigated the ability of young males and females to tell the difference between regular, calorie reduced, and reduced alcohol beer, and found similarly that while the identification accuracy was higher than what could be attributed to chance, it was not a significant amount. Furthermore, results showed that the ability to identify a difference between different types of beer was not linked to the amount of alcohol the individual usually consumed (McLaughlin, 1988). This conclusion in particular infers that zero percent alcohol could indeed be a valid replacement beverage for binge drinkers, who excessively drink, and that they would not find the taste significantly problematic. Additionally, the prior mentioned study by Bodnár et al. (2021) also finds that people who believed they were drinking regular alcohol, when they were not, “created” physical symptoms. This points to the idea that the atmosphere achieved from drinking regular alcohol can potentially still be achieved with zero percent alcohol.

While these studies are promising due to their indication that the taste and experience of reduced or zero percent alcohol is closer to that of regular alcohol than one might think, they do not actually consider what perceptions of zero percent alcohol are. This is more important in a real world setting wherein the potential consumer would be able to access the information on alcohol percentage. This juxtaposes the controlled setting cited above, in which this information was withheld to decrease bias toward reduced alcohol drinks. Furthermore, the study by Bernstein et al. (2016) may only work in the context of underage drinkers, due to their limited experience with alcohol. Non-alcoholic beverages may be rated as worse on taste than regular alcohol, but several efforts are being made to produce non-alcoholic beer with a better preservation of the flavour typically lost in reduced alcoholic drinks (Brányik et al., 2012; Catarino & Mendes, 2011). The same can be observed with reduced alcohol wine, with the adoption of techniques that improve quality and retain the aroma of regular wine being of importance (Pickering, 2000).

### 2.4.3 Encouraging Adoption of a Safer Alternative

Based on Saliba et al. (2013) and similar works, finding a way to educate consumers on reduced or zero percent beverages is a crucial part of increasing the acceptance of the product category. Shemilt et al. (2017) consider this as well, attempting to link this to the actual labelling of reduced alcohol or zero percent products. While they do not manage to gather sufficient findings for transferability, it raises an interesting medium of transferring important knowledge (Shemilt et al., 2017). One must use care when undertaking labelling, because advertising the reduced or zero percent beverage as healthy or similar may lead people to consume higher amounts than they would of regular alcohol (Bucher et al., 2018; VicHealth, 2010). A further issue concerning zero percent alcohol can be in its potential to serve as a gateway effect for adolescents who find themselves exposed to or interested in regular alcohol through their exposure to zero percent alcohol, rather than using it as a better alternative (Miller et al., 2022). Essentially, terminology used to describe the drink should prioritise clarity for the consumer, especially when it can even affect perceived quality before tasting (Bucher et al., 2018), for the purpose of mitigating misunderstandings or risk.

The packaging design itself is ultimately determined to not affect preference, with instead brand name and prior experience being of higher importance (Chrysochou, 2014). This is not to say packaging design has no importance, but rather that labelling and physical packaging design may not need to resemble the original alcohol products reduced and zero percent alcohol products substitute so closely. This is especially important in the case of religious authorities that have issue with beverages that try to imitate a prohibited substance (Chan et al., 2012). Regardless, this brings attention to the possibility that there is little symbolic meaning of appearance of zero percent and reduced alcohol products for consumers. This being said, there is no literature on this to back this up, which proves the need for such research to take place.

In reviewing existing literature on reduced and zero percent alcohol, a slow but steady rise in interest in these products is found. This hints at significantly higher levels of adoption to follow if issues of taste and insufficient information available are addressed and rectified. It is found that the main source of interest in reduced and zero percent alcohol is around the decreased intoxication and health benefits they provide (Chrysochou 2014). Further research reveals that consumer ambivalence towards alternative alcohol drinks is primarily due to cognitive dissonance rather than actual displeasure. Essentially, factors such as taste are

exaggerated to be worse than they actually appear to be when examined controlled conditions. This said, these conclusions focus on reduced alcohol products, and unfortunately, no literature enquires into the perceptions of consumers towards zero percent alcohol.

## 2.5 The Literature Gap

After analysing the literature, the problematic potential of drinking alcohol is evident, particularly in the case of binge drinking. This was able to provide a stronger understanding of the category that zero percent alcohol is an alternative to, and the motives that affect regular alcohol consumption. Beyond this, symbolic meaning was considered as it related to regular and zero percent alcohol. As regular alcohol literature indicates, beliefs and attitudes people have towards alcohol are not always obvious to the person themselves. On the other hand, symbolic meaning offers an in-depth understanding of regular alcohol, uncovering hidden or unnoticed influences that individuals may not normally identify. In the context of zero percent alcohol, this was considered to be able to offer similar insight.

Research then focused on identifying any zero percent alcohol literature, or supplementing the lack of said literature with that of reduced alcohol. Reduced alcohol was investigated as well due to it offering a similar category of beverages to zero percent alcohol, but more academic research. The only data that could be found for zero percent alcohol was quantitative, and the reduced alcohol research, while informative, could not be confidently applied to zero percent alcohol since they are still different product categories. In other words, the research found was limited in scope regarding what consumers think of zero percent alcohol, and more importantly why they think that way.

The gap identified is that there is no research on how people perceive zero percent alcohol as a replacement for regular alcohol, and how its symbolic meaning might influence its consumption. These perceptions are one of the most important factors to consider, as no matter how appealing a product may seem in theory, it does not matter if the consumer does not purchase it, so finding out their current views is crucial. Symbolic meaning appears intertwined with the seemingly irrational decision-making process consumers have, so it is considered an equally important point for investigation. These points are finally organised into two research questions below:



- What are perceptions of using zero percent alcohol as a replacement for binge drinking?
- How do the symbolic meanings of zero percent alcohol/regular alcohol influence their consumption?

## Chapter Three - Research Methodology

### 3.1 Introduction

This chapter details steps taken to conduct the current research, and rationale behind the researcher's beliefs and decisions. It begins with a consideration of the reason for this research, then the research approach, which outlines the epistemology and theoretical perspective of the research. Next, the methodology, method, participants, and data analyses used are outlined and justified appropriately. Following this, trustworthiness of the findings is explored, and more specifically, how it will be achieved. Finally, the ethical considerations and approval of the study are stated. Through this research methodology, the researcher has sought to provide an optimal means of addressing the following research questions:

- What are perceptions of using zero percent alcohol as a replacement for binge drinking?
- How do the symbolic meanings of zero percent alcohol/regular alcohol influence their consumption?

### 3.2 Research Approach

This section on research approach addresses the epistemological beliefs and discusses the relevant theory of knowledge for the current study. Following this, the theoretical approach is explained, elaborating on the method for gathering said knowledge from participants. Both approaches consider their relevancy to the current study, and confirm how they align with the desired outcomes of the research taking place.

#### 3.2.1 Epistemology

Epistemology is a concept that gives way to the theory of knowledge, seeking to understand and justify beliefs or findings about the world around us (Audi, 2010). An epistemological understanding involves gaining an insight into how people interpret and prescribe meaning to decisions they make, and knowledge they receive or currently have (Hofer, 2001).

Epistemological beliefs can be separated into two camps – either that reality exists as a singular objective construct, or that it is subjectively constructed at an individual level (Young & Collin, 2004). In the case of the current research, the researcher and the context of

the study suggest the latter, also known as constructionism, as the more appropriate epistemological belief.

Constructionism describes knowledge and meaning as something not contained within one single ‘truth’ or reality, but rather something to be individually interpreted based on the various contexts and experiences that people come across or have (Ward et al., 2015). Furthermore, people all have the capacity to construct an array of different meanings for the same subject, due to these past experiences that make them the individual that they are (Young & Collin, 2004). It is also posited that the constructed reality can be perceived as an objective reality by the relevant individual (Ward et al., 2015), which is reminiscent of the near unconditional acceptance of norms and culturally-imbedded beliefs that is often found in the larger population. In other words, despite not being ‘truly’ objective or always rational, many beliefs, perceptions, or attitudes are constructed and acted upon based on meaningful interactions and knowledge gathered from the surrounding world, and those in it (Crotty, 1998).

The actions and beliefs of an individual, particularly in the current context of alcohol consumption, seem rooted to some degree in a socially-constructed reality. Social constructionism depicts knowledge as something jointly gathered, in part, through social and interpersonal influences, and the language and culture they share (Galbin, 2014). This is in fact reminiscent of symbolic meaning, which at a fundamental level increases survivability through bonding and developing communities (Zaidel, 2020). In essence, social constructionism is a necessary function in developing the self, and what meaning the world around the individual has. These two factors find themselves built through co-developed beliefs that, when adopted, can benefit all involved.

As mentioned earlier, this approach is deemed appropriate for the current study. Alcohol is the subject of large cultural and social influence (Fabrizzi et al., 2017; Jellinek, 1977), which can heavily impact the decision to intake the substance. Furthermore, alcohol appears to be construed as an expected undertaking in certain settings, particularly for young adults (Bower, 2019; Boyle et al., 2016; Foster & Ferguson, 2014; Järvinen & Room, 2017). Whether it is in avoidance of isolation (Rees & Wallace, 2015), to escape problems (O’Hara et al., 2015), or to enjoy oneself (Fabrizzi et al., 2017; Kuntsche et al., 2005), the consumption of alcohol is often seen as a requirement. This is primarily due to the socially

constructed meaning behind the activity, which communicates that self-actualisation and group cohesion can be achieved through drinking (Guggenbühl, 2008). Elaborated on further, this infers a shared construction is possible for people in a group. It is also for this reason that a constructionism approach is considered suitable for the current study.

### 3.2.2 Theoretical perspective

A theoretical perspective is the framework that helps with the development of one's methodology (Crotty, 1998). For the current research, the chosen theoretical approach is that of hermeneutics. This is the theory of interpretation, and the way of sharing meaning (Crotty, 1998). This is achieved through several avenues, such as pre-understanding and an understanding of language. It also concerns itself with the social environment around an individual, which shares its perceptions, values, and attitudes and in turn influences the constructions that they make (Crotty, 1998). This is where hermeneutics is found to be consistent with the beliefs of constructionism.

Within research, the practice of hermeneutics understands the possibility of misunderstanding within communication, and thus the need to establish interpretation (Schmidt, 2014). Done correctly, this allows the interviewer and participant to come to similarly understand a given construction. The basis for achieving an interpretation of an individual's construction is through shared meaning, which is achieved, in part, through having a prior understanding of the participant or the topic (Schmidt, 2014). This is known as pre-understanding, in which the researcher references their existing knowledge and familiarity of the subject matter to realise the value of the participant's construction (Thiselton, 2009). In a more academic sense, this pre-existing understanding regarding the research topic allows the researcher to interpret data or findings in a way that would not be possible or as effective without it. Furthermore, it allows for a reference point for differentiation among participants' opinions.

It should be realised that this researcher involvement needs acknowledgement. The participant has their own experience, which they recount to the researcher, who in turn interprets the information in their own way (Arnold & Fischer, 1994). This interpretation by the researcher is likely influenced by any existing pre-understanding, as while it may give insights, it could also lead to some bias that could influence results. Essentially, this entails that the researcher is to also be considered a participant of the research to some extent. That said, the preference for better understanding of participant's constructions makes it

worthwhile. This is particularly relevant around a topic like zero percent alcohol, which is potentially difficult to communicate thoughts about easily, due to its low prominence (Anderson et al., 2020) and thereby familiarity.

Language comes in many forms, but consistently provides the ability for communication. Through language, individuals are able to share their interpretation of a subject matter as constructed by their own beliefs and attitudes, attenuated by cultural and environmental factors in their life (Crotty, 1998). What becomes most important in listening to an individual's interpretation is being able to understand the meaning behind what they are saying, which can possess much more depth than what can be perceived at face value (Schmidt, 2014). It is in this context that pre-understanding is further made necessary, due to the benefit of being able to better discern and appreciate the meaning behind a participant's words. It is also this reasoning that further aligns the theoretical perspective of hermeneutics with the epistemology approach of constructionism, wherein both recognise the need for a deeper understanding of a participant's constructed reality around a given subject. They also share a consensus that there exists a socially influenced aspect of one's knowledge and understanding, that are integral to said reality (Arnold & Fischer, 1994; Galbin, 2014). With this in mind, hermeneutics is considered a suitable approach for this research.

### 3.3 Methodology

The following methodology is a description of how the researcher will gather data concerning the current context of zero percent alcohol, and what knowledge may be gained from the chosen approach (Yilmaz, 2013). The methodology is informed and works alongside the epistemological beliefs and theoretical assumptions of the researcher (Kuper et al., 2008), which are outlined in the previous section. These both led the researcher to design a methodology consisting of a qualitative approach with a semi-structured interview, involving a projective technique and direct questioning to gather data.

#### 3.3.1 A qualitative study

In approaching the collection of data, it can involve either quantitative or qualitative research. Quantitative research can be thought of as an investigation into some sort of phenomena, for the purpose of verifying a theory (Yilmaz, 2013). Furthermore, it looks for causal relationships, prediction, and generalisability (Slevitch, 2011). The primary concern is found

in the gap, wherein the current literature into the topic does not have any basis for quantitative research to be guided by. As Farghaly (2018) states, there is a need for existing qualitative research to generate theory, or develop a deeper understanding of a given phenomena for quantitative research to take place. In investigating zero percent alcohol, the current research seeks to begin uncovering perceptions of zero percent alcohol, and is not as concerned with generalisability at this stage.

With this in mind, a qualitative approach to the current study appears preferable. Qualitative research is more concerned with the “why” and “how” of the world, and seeks to generate in-depth data that is also more realistic (Kuper et al., 2008). A qualitative approach involves letting research participants express themselves without restraint, due to less constraints (Aspers & Corte, 2019). This is done with the purpose of generating rich data that that explores the actions and experiences of people as they interact and encounter different situations and objects, for the purpose of gaining a deeper understanding of them (Elliot et al, 1999). This data is obtained through such methods as focus groups, interviews, or documents and other written artefacts (Kuper et al., 2008). These research techniques typically involve some degree of open-endedness, informality, and are semi- or unstructured, for the purpose of having more flexibility and ease of communication when data is being obtained from the respondent (Jackson, 2007). In the context of investigating zero percent alcohol, this enables the researcher to give participants more room to justify and explain their perceptions, which is particularly useful in a field that does not have any prior data that responses could be related or compared to.

Qualitative research also considers a respondent’s attitudes, motivations and behaviours, or rather, the subjective meaning they attribute to a subject of interest (Aspers & Corte, 2019). This in particular establishes a link between a qualitative approach and the epistemology approach of constructionism that the researcher has chosen for this study. Qualitative research places importance in the social construction of reality and having an interpretive approach (Jackson, 2007; Yilmaz, 2013), which was also found within constructionism in the previous section. In contrast, a quantitative approach would typically consider reality as objective and independent of human perception (Slevitch, 2011). Hermeneutics are also interlinked with a qualitative approach, detailing how more in-depth detail is needed in order to understand the big picture (Aspers & Corte, 2019). This extends into pre-understanding as well, where understanding itself is deemed crucial for qualitative research (Aspers & Corte, 2019).

Overall, it would appear that the epistemological beliefs of the researcher reinforce a qualitative method. It would also be beneficial to the current research to explore zero percent alcohol from a subjective perspective, alongside the participant, due to the unfamiliar nature and social aspect of the topic.

### 3.3.2 Semi-structured interviews

The collection of data for this research was achieved through semi-structured interviews. Qualitative interviews often are of a constructionist nature and seek to uncover the meaning participants put in a given subject of interest (Warren, 2001). This is ideal for the current context, as it is a good fit for both the researcher's epistemological beliefs, and it coincides with the research objective of investigating the symbolic meaning of zero percent alcohol. Interviews also provide rich and full data that reveals how the participants see and interact with the world around them (Magnusson & Marecek, 2015). Often conducted face-to-face, interviews consist of an interviewer and respondent conversing about the subject of interest, either with direct guidance by the interviewer, or a broader discussion that allows the respondent to speak at their own pace (Ryan et al., 2009). The conversational tone and atmosphere is typically dynamic and flexible, dependent on what the topic is, or what the respondent is like (Magnusson & Marecek, 2015). However, one thing that is not as receptive to being changed is the structure. While what is said in the interview may change, the interviewer must make sure to abide by agreements made with the respondent, such as the time frame for the interview itself (Magnusson & Marecek, 2015). This and other methods of showing respect for the respondent's time and information should be adhered to strictly, as they can affect the quality of the responses the individual being interviewed chooses to provide (Ryan et al, 2009). One final area of importance is creating a rapport with participants, which allows them to feel more relaxed, and thereby be more willing to give honest and extensive data to the interviewer.

As alluded to, there are three variations of interviews. Out of these variations, the semi-structured was chosen. Structured interviews do not provide enough ability to investigate an unknown topic, lacking the depth needed to investigate a literature-lacking field (Lloyd, 2021). Conversely, as the researcher knows what they want to discuss about zero percent alcohol and can compare it to its counterpart of regular alcohol, it is not necessary to use an unstructured approach, which would otherwise fit in the absence of any starting point for discussion (Ryan, 2009). Therefore, a semi-structured interview was deemed appropriate.

Alongside interviews, several other tools are possible for collecting qualitative data. Some common approaches include focus groups, documents and artifacts, observations, and reflections (Billups, 2021). Focus groups were the strongest alternative, however due to the sensitive nature of alcohol usage, a group environment is not ideal for discussion (Greenbaum, 1998). The other three categories involve less direct methods of collecting data from the target group (Billups, 2021), that do not allow for the in-depth information that could come from a real time discussion between two individuals. Ultimately, the semi-structured interview is the researcher's preferred format for gathering data.

#### *3.3.2.1 Projective techniques*

Through using the projective technique (alongside direct questioning), this study gathered data to help investigate the symbolic meaning of zero percent alcohol to participants. More specifically, this technique serves to uncover information that the respondent would inadvertently or actively omit (Hussey & Duncombe, 1999). Due to the perceived negative associations with certain drinking behaviours, respondents can potentially give what they think are socially desirable responses, rather than accurate ones (Jones et al., 2015). In this situation, a projective technique presents respondents with an ambiguous stimuli that provides an indirect link to the original topic that is less likely to induce said bias, and therefore project their honest beliefs, attitudes, and perceptions (Haire, 1950). Alternatively, if the respondent is incapable or unsure in expressing their thoughts on the research object, a projective technique allows for an alternative method for elaborating on the subject, and may additionally allow them to consider emotional attachment, rather than simply logical and rational responses (Gambaro, 2018). One additional benefit is the potential for projective techniques to also indirectly built rapport with participants (Kubacki & Siemieniako, 2017).

There are various types of projective techniques that can be used, such as the Rorschach Inkblot Test, the Washington Sentence Completion technique, and the Thematic Apperception Test (Steinman, 2009). Projective techniques such as these are classified under five headings, these being association, completion, construction, choice ordering, or expressive techniques (Will et al., 1996). The technique used for the current research was an association technique, chosen for its ability to consider thoughts and feelings in-depth through the use of existing perceptions on some separate stimuli (Kubacki & Siemieniako, 2017). In other words, the respondent links the subject of interest to a third party through their own subjective



perspective, which can subsequently be analysed as their accurate thoughts and feelings on the matter. Regarding the current research, this may help participants who are unfamiliar with zero percent alcohol (or at least discussing it), and therefore could benefit from a medium that eases them into discussion of the topic. Furthermore, within the semi-structured interview, the association technique is able to be used to supplement direct questioning in areas where it cannot provide sufficient data (Kubacki & Siemieniako, 2017; Spry & Pich, 2021).

### *3.3.2.2 Association techniques – Animal images*

Through the use of an association technique, participants were given a medium upon which they could project their perceptions of zero percent alcohol onto. Association tasks ask the participant to share the first images, words, or thoughts that come to mind when presented with a stimulus (Vidal et al., 2013). Of these, images were chosen, which involved showing participants several images, who then are to indicate which is the best fit for the subject being discussed (Greenbaum, 1998). Through the use of forced relationships, these images are purposely ambiguous in relation to zero percent alcohol, forcing the participant to create their own one that contains their subjective perceptions (Duncombe & Hussey, 1999).

The most common categories are animals, automobiles, and colours, chosen due to most people being familiar with the contents of each category, and attributing some meaning to them (Greenbaum, 1998). Animals were chosen due to the distinguishing features they can possess, that in turn can be compared to something like zero percent alcohol easier than would be possible with a more obscure or abstract set of stimuli photos (Duncombe & Hussey, 1999). Furthermore, they have been used often in forced relationship exercises (Greenbaum, 1998), and are already popular in advertising and symbolism (Duncombe & Hussey, 1999) reinforcing its integrity.

#### *3.3.2.2.1 Choice of images*

The criteria for image selection were sourced from Duncombe and Hussey (1999), who outline several important rules to abide by to maximise the trustworthiness of any data collected. First and foremost, images must be neutral, so that they do not elicit bias or potentially offend the respondent. As an example, showing an animal attacking another animal would not be appropriate. Secondly, images must contain at least one distinct difference, for the purpose of the respondent being able to differentiate between animals. Finally, the pictures must cover all extremes, such as domestic pets against wild animals, or

big and small animals. This allows for a wider variety of descriptive features for the participants to pull from.

The animals that were chosen were based on the prior research of Duncombe and Hussey (1999), who used a rabbit, panda, elephant, squirrel, lion, chimp, bear, and a cat. For the current research on zero percent alcohol, the elephant, lion, and bear were deemed inappropriate, due to their potential linkage to alcohol products that use these animals in brand imagery. If not addressed, they may lead to participants making judgments based on known existing associations, rather than projecting thoughts and feelings onto an animal with a more ambiguous connection. Furthermore, the squirrel was replaced due to its potential unfamiliarity within a New Zealand context. To replace these animals, the researcher chose images of a rhino, turtle, hyena, and a dog, which were selected as per the guidelines set by Duncombe and Hussey (1999). All images used can be found in Appendix B.

### 3.4 Method

The following section elaborates on the use of the methodologies outlined above to gather information from participants. It begins with a description of the interview guide used to provide structure to the interviews, then discusses the use and results of pre-testing. Finally, it depicts how the data was collected.

#### 3.4.1 Development of interview guide

The development and execution of the interview guide used for the current study was constructed through reference to the process outlined by Kallio et al. (2016). Once confirmed appropriate for the context, the information found in the literature review was used to help form the content within the guide. The guide began with instructions for the interviewer to converse briefly with the participant to ease into the interview, then asked some demographic questions. Next was an introduction of the topic, which contained definitions of binge drinking and zero percent alcohol. The following content of the guide contained the questions to be asked, segmented as relevant for each section of the interview. Throughout the guide several sentences were in italics or coloured grey, which were for the purpose of informing the interviewer the structure to process to follow in the interview, and the purpose of any given line of questioning. Additional statements and questions in the form of prompts and follow up questions were also included in case participants did not or could not answer

certain questions as desired (Magnusson & Marecek, 2015). The finished interview guide was confirmed to cover all relevant content and themes the researcher wished to investigate and discuss, but also allowed for questioning to extend beyond the content of the guide should the interview discussion lead such a way (Jacob & Furgerson, 2015). Appendix A contains a copy of this interview guide.

#### 3.4.2 Pre-testing of interviews

The planned interview structure, including the interview guide, was reviewed by the researcher's thesis supervisors, and underwent several changes before arriving upon the final format used for collecting data. These improvements worked on confirming the clarity of the questions, and also making sure neither unnecessary content was included, nor anything required for later analysis was missing (Turner, 2010). The interviews were then pre-tested upon the first five participants to show interest in taking part in the research. No significant problems arose, with pre-testing primarily helping the researcher improve their ability to guide the interview. One change that was made to the interview structure was explaining and revealing the animal association-related pictures prior to the interview, so that participants would have more time, and thereby less pressure, to consider them.

#### 3.4.3 Data collection

A total of 25 interviews were conducted, consisting of both tertiary students, and those who either had not gone to university or had graduated. The final number of interviews undertaken reflects the quantity that the researcher felt had achieved saturation, and therefore provided data of sufficient quality (Hennink et al., 2017). Interested parties would individually meet with the researcher, either in person or on Zoom, to carry out the interview. For the physical location of the interviews, a discussion room would be booked within the University of Canterbury central library, which provided a quiet and semi-private location for effective and safe conversation (Jacob & Furgerson, 2015). An option of conducting the interview online was also given, using the video-conferencing platform "Zoom", to encourage participation among people apprehensive about travelling to the designated physical location, or otherwise unable to (Archibald et al., 2019). Relevant materials would be emailed to the participant prior to the start of the interview if they wanted to meet online. Additionally, both the researcher and the participant's confidence with the software would be evaluated beforehand to confirm no issues would arise out of not using a standard face-to-face interview setting (De Villiers et al., 2021).

The meeting time and date for interviews were organised as suitable for both the interviewer and the interviewee. Participants were told to allow for one hour for the duration of the interview, which made sure to allow for extra time on top of the expected 30 minutes it would take to finish up (Rowley, 2012). This expected duration was reinforced by pre-testing, with the majority under, save for one outlier of 50 minutes. For those who chose to conduct the interview at the University of Canterbury, the researcher gave them directions, if necessary, to the central library, where they would be meet and both proceed to the discussion room. Upon meeting with the individual, the researcher would engage in informal conversation to help create a more relaxed atmosphere for the interview, and build rapport that would increase the likelihood of rich data being provided (DiCicco-Bloom & Crabtree, 2006). This rapport was more critical earlier on in discussions with participants, but was maintained throughout the interview due to the researcher's recognition of its dynamic state (Abbe & Brandon, 2013).

After the informal conversation was finished, the researcher went through the research purpose and, if participants had not already, the consent form. From here, the interview would officially begin, following the aforementioned interview guide. It began with demographic related questions, due to the potential for these to be factors that impact perceptions of zero percent or regular alcohol. It should be noted this was not relevant to any selection criteria, but rather was in the interest of discovering commonalities that may explain certain perceptions of zero percent alcohol, such as gender. Once this was completed, an opening statement would be read. This sought to provide definitions and lay out the structure of the interview to participants, even if they were already informed, for the purpose of ensuring participants were aware of the topic for discussion in the same capacity as the researcher. Alongside these definitions, participants were asked for their personal interpretation and views of zero percent alcohol. This and other sections that required participant input primarily followed the interview guide, however were also re-organised or expanded upon to follow the dialogue that comes up, to maximise information collection (Moser & Korstjens, 2018).

Following this, the projective technique exercise begun. Images would be placed out in front of the participants, consisting of animals chosen by the researcher. In the case of Zoom interviews, when this stage was reached, participants would be asked to open a document with the images on them that had previously been sent to them. From the images, participants

were instructed to choose which animal they personally believed to best represent zero percent alcohol. Once identified, the researcher would ask them questions regarding their selection that sought to identify their perceptions of zero percent alcohol.

Due to the nature of the projective technique, there are several issues, such as complexity of the data gathered and thus interpreted (Steinman, 2009). It is for this reason that there were additional questions beyond those in relation to the animal association exercise. This allowed for a more direct approach to gathering data, complimenting the projective technique. The questions focused on gathering thoughts on zero percent alcohol and such topics as willingness to consume the product. They also inquired into views of regular alcohol to find how this may influence their perceptions, such as whether they value the intoxicated state it can provide, and so forth. With this finished, the interview came to a close, with the researcher first checking with participants if they had any additional queries or comments, then thanking them, and concluding.

All interviews were audiotaped with permission from participants. Audiotaping was used so that the researcher could focus on the participant during discussion, and better engage with them than would be possible with hand-written notes (Jacob & Furgerson, 2015). For the face-to-face interviews, a cellular phone's recording application was used, and the recording software within Zoom was used for virtual interviews. At a later date, the recordings were transcribed verbatim by the researcher, which, as the interview conductor, any transcription difficulties would be lessened due to their presence in said interview. Additionally, it served as an opportunity for the researcher to gather an initial idea of arising themes. In line with the requirements of the Human Ethics Committee, all names were redacted from transcripts to retain anonymity. These were either replaced by "Interviewer" for the researcher, or "Respondent" for the participant.

### 3.5 Participants

As noted in the previous section, there were 25 interviews, and therefore 25 participants total. These participants were split as 10 females and 15 males. Of these participants, 12 were students, whereas 13 were not. The researcher tried to avoid having too many of one category so as not to skew the results of the study. Previous literature states that those within the young adult group are the main consumers of alcohol (Jennison, 2004), and those between 18 and 29

are most at risk (Kuntsche et al., 2004). This guided the selection criteria, which sought people 18 to 25. This smaller margin was chosen due to it being a more familiar bracket to the researcher, which would help in their efforts to understand and discuss zero percent alcohol with them. Additionally, applicants needed to currently be drinking, as the study wished to investigate people who favour regular alcohol over zero percent alcohol. The criteria also extended into applicants needing to be binge drinkers, with this problematic form of consumption being more important for zero percent to replace if possible. This was defined as having consumed five standard drinks for men and four standard drinks for women on any one occasion (Palmer, 2010).

The researcher made an announcement on social media with an accompanying poster that outlined the core parts of the research, and asked those the post reached to email the researcher for further information. Snowball sampling was used to find further applicants, chosen due to the monetary and time constraints of the research. This meant that once a person contacted the researcher, were given more detail of what the interview would entail, and agreed to be a participant, the researcher would ask them if they could forward the information sheet and consent form to other people they know who might like to participate. New participants would be asked to contact the researcher directly if they wished to participate so the researcher never directly emailed potential recruits without their permission. For all participants, they would be compensated for their time with a \$20 voucher for the mall chain “Westfield”.

### 3.6 Data analysis

The data analysis for this study followed the phases of thematic analysis as outlined by Braun and Clarke (2006). The data was initially transcribed by the researcher, at which point they were able to further their understanding of the data. They also wrote down initial impressions and thought processes in a reflexive journal to help with later coding and construction of themes (Meyer & Willis, 2019; Nowell, 2017).

Following this, open coding with initiated, where the data set was analysed on a question-by-question basis, and participant responses would be collated into code format for later categorisation (Joffe, 2011). Quotes from participants were also organised together with each code to provide context in later analysis (Nowell, 2017). During this coding process, quotes

and the open coding itself was organised into possible themes, for the purpose of building an understanding out of the summarised data (Tuckett, 2005). Once the coding was complete, these themes were subsequently checked for quality and appropriateness in relation to research goals (Guest et al., 2012). This quality check revealed minor issues, with the only relevant change relating to more appropriately organising themes and subthemes. Next, the themes were further refined to ensure they were unique and specific, and began to work on organising the themes into a coherent story (Rowley, 2012). Finally, the themes and relevant extracts were then written up as the completed analysis, which became Chapter 4 of the current study. It should be further noted that the results of Chapter 4 were checked for rigour, and no issues arose.

### 3.7 Establishing trustworthiness

Reliability and validity is an often used approach to confirm a given study's integrity, however this is only relevant for the belief in one objective reality (Guba & Lincoln, 1985). This opposes the multiple constructed realities that exist within the researcher's epistemological beliefs, wherein reality is considered subjective. With this contradiction coming to light, there is a need for an alternative approach. This alternative is trustworthiness, which is comprised of credibility, transferability, dependability, and confirmability. These aspects of trustworthiness are elaborated on in this section.

#### 3.7.1 Credibility

Credibility can be compared to internal validity. In the case of internal validity, the findings are based on the existence of one true reality, and that by extension, the findings point to a singular explanation (Guba & Lincoln, 1985). In contrast, credibility considers the existence of multiple "true" findings. Since a singular "correct" construction cannot be established, credibility instead seeks to make sure the information obtained from participants represent them properly and are interpreted accurately (Guest et al., 2012).

There are several options available to obtain credibility, with peer debriefing being one such technique. Peer debriefing involves seeking support from other professionals, such as academic staff or department members, who give feedback on how the quality of a study's findings (Anney, 2014). For the current context, the researcher chose their supervisors to

fulfil the peer role. They examined the researcher's coding and identified themes to assess their quality, and confirmed them as appropriately analysed and representative of the data.

### 3.7.2 Transferability

Transferability is similar to external validity, which relates to how well findings can apply to different contexts, or rather, the generalisability of the research (Guba & Lincoln, 1985). Due to the nature of this research's approach, it is not wished that the findings can be generalised like with external validity. Through the examination of the researcher's epistemological beliefs, it was outlined how all individuals construct their own unique and experience-shaped reality (Ward et al., 2015), and consequentially, generalisability is difficult to apply. A level of shared meaning can exist within a social setting and interactions within it (Galbin, 2014), however this still does not entail the existence of a singular "truth" that would hold constant in separate contexts. Transferability takes this into account and instead refers to the ease at which qualitative research can be applied to a different circumstance (Lincoln & Guba, 1985).

For effective transferability, the researcher must provide sufficient and comprehensive information on their findings for the ease of use in different contexts by those interested in doing so (Crawford et al., 2000). This is also known as thick descriptions, which provide rich information on such contents as the methodology used (e.g., participants and data collection process) and findings (Anney, 2014). Both Chapter 3 and 4 of this study provide this to the best of the researcher's abilities. Chapter 5 also serves to effectively expand on findings and their link to relevant literature for further transferability. It should be noted that due to an inability to predict what populations future researchers will be transferring the current research's findings to, providing a rich description has the utmost importance to maximise the number of contexts that the findings could be applied (Guba & Lincoln, 1985).

### 3.7.3 Dependability

Dependability is the counterpart to the objective concept of reliability. Typically, reliability is used in assessing the consistency of gathering a given set of data if a similar group of participants and method were to be used (Golafshani, 2003). However, the act of replication to gain reliability is not permissible in the realm of qualitative research. The perception of subjectivity within the current research means that being able to obtain the exact same findings in another collection of research is not possible (Guba & Lincoln, 1985). So, rather



than looking for replication (with one “truth”), dependability looks for logical processes, decisions, and interpretations that are consistent over the entirety study’s findings (Nowell, 2017). As with credibility, peer debriefing was also used to gain dependability. The researcher went through their research process with their supervisors, who used their experience with qualitative research to make sure the analysis of data was honest, and were on track with the purpose of the study (Anney. 2014).

#### 3.7.4 Confirmability

Confirmability is equivalent to the quantitative concept of objectivity. However, while objectivity would require a positivist confirmation of the research’s findings, confirmability is instead satisfied by a focus on confirming that researcher opinions do not unduly influence participants, or interpretations of the data (Crawford et al., 2000). Furthermore, the gathered information should come across as logically assembled and coherent (Sinkovics et al., 2008). This also takes into account the epistemological belief that the researcher will bring their preunderstanding to data interpretation. To establish confirmability, a reflexive journal was utilised. This involved documentation of personal reflections and general thought processes while carrying out the analysis (Smith, 1999). It also served an additional purpose of providing a way to confirm that initial understandings or impressions while coding could be revisited for use in the write up of the findings in Chapter 4 (Anney, 2014).

### 3.8 Ethical considerations

The topic of this research, zero percent alcohol, was considered for its potential to have ethical concerns. This is due to its link to regular alcohol, which may be uncomfortable for some people to honestly discuss, even if indirectly (Davis, 2020). Furthermore, any questions within interviews that may require the participant to elaborate on their alcohol related habits may cause them emotional or psychological harm (Oliver, 2010).

Ethical issues were minimised in multiple ways. Participants may have concerns of anonymity regarding what they say, and how what is said might reflect on them (Oliver, 2010). This was addressed through informing participants ahead of time that it is not compulsory to answer any questions, and that they could request for data collected from them to remain unused and be disposed of. This was also assured to have no repercussions on the researcher’s view of them or the reception of the gift card offered as a thank you for participating. Moreover, the use of individual interviews was undertaken, in part, due to the

desire to mitigate the concerns a participant may have if asked to share personal information on alcohol use in settings such as a focus group. The establishment of rapport was another factor considered important in making participants feel more at ease when discussing with the researcher. Finally, participants were also given phone numbers to help lines on the information sheet should they feel they need help. With these strategies in place, the plan for the current research was presented to the University of Canterbury Human Ethics Committee, who granted ethical approval for this study on the tenth of February 2023. The reference for the ethical approval of this study is 2022/102/LR.

### 3.9 Conclusion

The above chapter explained the beliefs of the researcher and the methods and strategies that have guided the current research. It has considered the researcher's epistemological beliefs of constructionism and their theoretical perspective of hermeneutics. Furthermore, this methodology has noted the primary decisions and techniques used to research the topic of zero percent alcohol, such as the use of semi-structured qualitative interviews. It was also found that, due to the epistemological beliefs and qualitative approach, that trustworthiness must be established to prove the credibility of this research. An analysis reveals that the current study has taken the proper steps to be trustworthy and therefore credible. Finally, a consideration of the ethical concerns regarding the research of zero percent alcohol similarly shows appropriate measures taken to ensure participant safety and proper treatment.

## Chapter Four- Findings

### 4.1 Introduction

This following chapter reports the findings from the 25 semi-structured interviews as outlined in the methodology chapter, for the purpose of answering the proposed research questions within section 3.2. A thematic analysis was used to analyse and then code the data, and subsequently discovered several prominent themes.

Four major themes are identified within the data analysis. These contain multiple subthemes, which elaborate upon and explain the various findings of the current research. To support these explanations, excerpts from the interview transcripts are included. To differentiate the various excerpts and still maintain anonymity, participants are identified through the number of their interview, such as Respondent 1 or Respondent 25. These findings are then considered in relation to their contribution to their respective major theme.

The four identified themes formed around the research on zero percent and regular alcohol are *knowledge*, *symbolic meaning*, *drinking motives*, and *substitutability*. *Knowledge* relates to the comprehension of what zero percent alcohol is, as well as how information sources help construct their understanding. *Symbolic meaning* considers the various descriptions of regular and zero percent alcohol in the animal association task, and interprets the various commonalities that arise. Next, *drinking motives* investigates the various motives around drinking regular alcohol, and how they affect participants' attraction towards it, and subsequently zero percent alcohol. Finally, *substitutability* refers to the various factors that facilitate or inhibit the consumption of zero percent alcohol.

#### 4.1.1 Interview demographics

For the benefit of discerning individual context of participants, several demographic questions were asked. The responses are included within the table below for comparison to respective quotes.

**Table 2.***Interview Demographics*

Participant	Gender	Age	Ethnicity	Nationality	Highest education	Income (\$ Yearly)
#1	Male	24	NZ/European	New Zealand	level 5 certificate in physical education	25,000 - 50,000
#2	Male	22	NZ/Indonesian	New Zealand	Bachelors, studying masters	< 25,000
#3	Male	22	NZ/European	New Zealand	Bachelors, studying masters	25,000 - 50,000
#4	Male	22	NZ/European	New Zealand	Bachelor of science	< 25,000
#5	Male	25	NZ/Maori	New Zealand	Bachelor of nursing	50,000 - 75,000
#6	Male	22	NZ/European	New Zealand	Bachelors	< 25,000
#7	Male	23	NZ/European	New Zealand	Bachelor of science	50,000 - 75,000
#8	Female	22	Vietnamese	New Zealand	Bachelors, studying masters	< 25,000
#9	Male	22	NZ/European	New Zealand	Bachelors	50,000 - 75,000
#10	Female	18	NZ/European	New Zealand	NCEA level 3, studying bachelors	< 25,000
#11	Male	23	NZ/European	New Zealand	Level four certificate in carpentry, currently studying	50,000 - 75,000
#12	Female	21	NZ/European	New Zealand	Bachelors	50,000 - 75,000
#13	Male	24	NZ/European	New Zealand	NCEA level 3	50,000 - 75,000
#14	Female	23	NZ/European	New Zealand	Bachelors, currently studying	50,000 - 75,000
#15	Female	25	NZ/European	New Zealand	Bachelors	25,000 - 50,000
#16	Male	22	NZ/European	New Zealand	NCEA level 3, studying bachelors with honours	25,000 - 50,000
#17	Male	22	NZ/European	New Zealand	Honours in chemical engineering	50,000 - 75,000
#18	Male	23	NZ/European	New Zealand	NCEA level 3	50,000 - 75,000
#19	Female	22	South African/European	South African	Diploma, currently studying	< 25,000
#20	Female	23	NZ/European	New Zealand	Bachelors, studying masters	< 25,000
#21	Male	22	NZ/European	New Zealand	Bachelors with honours	< 25,000
#22	Female	22	NZ/European	New Zealand	NCEA level 3, currently studying	25,000 - 50,000
#23	Female	20	Javanese/European	New Zealand	NCEA level 3, currently studying	< 25,000
#24	Male	21	NZ/European	New Zealand	Bachelors	25,000 - 50,000
#25	Female	20	NZ/European	New Zealand	NCEA level 3, currently studying	< 25,000

## 4.2 Knowledge

Prior to conducting the interviews, it was determined that it may be worth considering the current understanding of zero percent alcohol that participants had. This was due to its potential impact on their beliefs and attitudes towards it. Within the methodology, the researcher's epistemological beliefs were established as being grounded in constructionism, which views reality as something subjectively interpreted across individuals (Ward et al., 2015). Furthermore, this is cultivated from various experiences a select individual has been a part of (Young & Collin, 2004). In essence, this establishes the interwoven nature of a person's knowledge and the world view they have (Hofer, 2001). For the purpose of the current research, this means that a deeper understanding of participant perceptions, beliefs, and attitudes can be gained by investigating what personal knowledge is guiding their approach to zero percent alcohol.

In analysing the data, several slight, yet significant, variations around knowledge were observed, which formed the two subthemes that follow. The first is the definition of the zero percent alcohol, and how this is important to building knowledge. The second is information

source influence, which can shape how knowledge is developed or interpreted. These categories were created based on the answers that participants gave, which are included as supporting statements for each of these subthemes. It should be noted that while there may be a degree of overlap between these and later themes, their individual relevance to their relevant major theme will be discussed.

#### 4.2.1 Definition

Asking participants for a definition of zero percent alcohol both established the depth of their understanding, and also had the wider implication of a lack of available information. In defining the concept of zero percent alcohol, answers primarily indicated that zero percent would be an alcohol-like drink with no alcohol content, such as in the case of Respondent 15 and 22.

*Um, like, it tastes like, like a – Zero percent beer it tastes like a beer, but with no alcohol.*

(Respondent 15)

*Um, I actually don't understand the full science of it, I just know that there's just, not that chemical, or the alcohol, that - That it's like a chemical reaction in your brain - That's my understand- understanding of it - it doesn't cause that.*

(Respondent 22)

While it is a small distinction, zero percent alcohol can in fact possess minute amounts of ethanol (Sale and Supply of Alcohol Act 2012, n.d.). Respondent 15 and Respondent 22 were not unique cases with many other participants appearing unaware of this, with varying confidence in their own definition.

Alternatively, some participants would contradict themselves, appearing to be unclear on how many zero percent drinks could be consumed prior to driving. For instance, Respondent 4 appeared confused, stating: “*Probably only a couple?*” Furthermore, most definitions given were short and to the point, which while not problematic, indicated that their knowledge was either based on intuition, from a source with limited information, or they did not have much of a connection with zero percent alcohol. Respondent 14 is one such example: “*Like a lot. Any? Infinite.*” This was also supported by the apparent lack of awareness, or understanding, of other zero percent categories like wine or spirits.

*Yeah, probably zero percent beer. I don't think I've ever seen a zero percent wine, to be honest.*

(Respondent 13)

*Yeah, I always think of zero percent beer whenever anyone talks about zero percent alcohol, but then that's actually just from my experience of drinking it I suppose.*

(Respondent 17)

Responses primarily reflected a familiarity with solely zero percent beer, as seen above, or else delineated a lack of personal associations with zero percent categories. Ultimately, a proper understanding of the definition of zero percent alcohol involves more than a misplaced belief about what it is, but instead provides the knowledge that leads to educated decision making and perceptions that are unbiased and rational (Pritchard, 2006). In the current context, the former appears mainstream.

Beyond the scope of defining zero percent alcohol, an interesting discovery arose. While it was not the intention to discuss participants' understanding of it, when given the number of standard drinks considered to achieve binge drinking, several participants expressed surprise at the number provided.

*I only really drink alcohol to get drunk. And I have definitely been a binge drinker. But when I choose to drink, you know, like a glass of wine, or, you know, I get some Long Whites or something, my intention is that you know, not that I'm going to blackout, but that I'm going to have enough that I feel tipsy and I, I like to drink it for that effect.*

(Respondent 20)

*Four plus, like, hwoh, like, it sounds bad, but like I could drink four drinks sometimes and not even feel like fully drunk. Like, just a bit tipsy. Like, that could be a quiet night, which is like, I think I need to like go reflect a bit. But like when I think of like the amount of, like, drinks I've consumed on, like, some nights I go, Oh, my goodness, like that feels like my god, so much compared to what binge drinking actually is.*

(Respondent 25)

As Respondent 20 outlines, their measurement of drinking is based on the physiological effects it provides. This appeared to be a reoccurring theme for participants, in which their intoxication levels were subjectively considered a better indicator of an appropriate amount of regular alcohol to drink. Respondent 25 specifically notes this point, mentioning that due to not feeling tipsy, they would not feel concerned with their drinking level. However, when made aware of the actual definition of binge drinking, they found themselves suddenly concerned with their drinking habits. In essence, this suggests that making consumers aware of what problematic drinking looks like could decrease the attachment to such behaviour. Within the context of zero percent alcohol, this shift in attachment could be positive for consumption of said product.

#### 4.2.2 Information Source influence

One of the most influencing factors in perceived understanding of a given topic is the information source. It was often reported by participants that they would find out about zero percent alcohol, or at least become acquainted with it, through either their peers or their own personal experience. While not necessarily academic, personal sources of information around product choice or evaluation can diffuse the risk of trusting unverifiable sources of information, and are often more interactive (Gilly et al, 1998).

*Um, probably because of my partner, and with my partner, they can't drink. So therefore, I've not drunk nearly as much, and I don't want to almost exclude them or burden them with me being drunk. So I have been drinking more 0% stuff in order to not be a burden. And I do think that, you know, the social aspect has influenced me in that regard.*

(Respondent 2)

Respondent 2 depicted the use of zero percent alcohol as a result of their partner. Other participants who recounted their interactions described a more neutral encounter with zero percent alcohol that did not facilitate continuous consumption. This quote from Respondent 2 acknowledges this social influence, with their drinking decisions gravitating towards zero percent based on their partner's circumstances. Respondent 3 reinforces the importance of the source, indicating that consumption may be predicated on who suggests the behaviour.

*...And the minute I think you- I hear, “hey, have you tried this craft zero percent beer, man it tastes like the real thing.” And then I hear that on TikTok, or I hear that in a crowd – I’m, I’m someone who, I’ll try it. And if it’s, again, ticks a thing for yourself, I think that’s more powerful than a, in a marketing campaign or anything.*

(Respondent 3)

These reference groups who carry similar characteristics to a given individual can be considered an information source on the suitability of the product in question for self-identity construction, or simple consumption (Escalas & Bettman, 2005). The reason for this is either due to a desire to stay consistent with peer motivations and decisions, or because peer insight may provide perspective that was not available within the bubble of one’s own knowledge (De Dreu et al., 2008). Furthermore, groups such as peers are easier to gather information from than research studies, researching statistics, and so forth (Weiler, 2005).

Understanding of zero percent alcohol was also observed to come from personal experience, which can be an easier way to come to a conclusion about something such as alcohol than would be with peers (Weiler, 2005). This simplicity could in fact inhibit an individual from acquiring a more informed level of knowledge, namely due to confirmation bias.

*...Because I remember, my only experience, experience with [zero percent] alcohol was one time when I was on a family holiday with my dad. And he bought like a 24 pack. And we’re sharing it with some friends. And we’re all thinking, a few people said that tasted a little bit weird. But we’re just drinking it fine. And then we get halfway through the 24 pack. And then someone realizes that it’s actually a zero percent box. And so we didn’t know straightaway, but we knew that something was kind of off. But then, yeah, so like we were sort of enjoying them. And then obviously just didn’t have that alcohol there.*

(Respondent 17)

Respondent 17 mentioned later in the interview that the only reason for consumption of zero percent alcohol, even in a low-level consumption setting, “...is if they didn’t want to have alcohol.” Although a low consumption level of regular alcohol would be unlikely to produce intoxicating effects, this participant still did not consider zero percent alcohol worthwhile.



This perspective appeared to be something that had not been changed, even though they indicated their enjoyment of the product when unaware of said change. Several participants also reported problems with zero percent alcohol, such as taste or cost (explored in a section later on), yet did not appear to have experienced or educated themselves on the product beyond personal experience. In relation to confirmation bias, these individuals that prefer regular alcohol may seek positively biased information over credible information that might conflict with their enjoyment of regular alcohol (Jiwa et al., 2023; Jonas et al., 2001). Essentially, the source of knowledge possessed by participants primarily appears to be gathered on a heuristic basis, which may be at least partially responsible for the limited understanding of definitions explored earlier on.

### 4.3 Symbolic meaning

The main intention of the current research was to investigate the symbolic meaning of zero percent alcohol, and its potential as a replacement in the face of dangerous drinking behaviours like binge drinking. To this end, it was decided to uncover participants' attributed symbolic meaning to zero percent alcohol through an animal association task. This projective technique of animal associations forced participants to project their subjective perceptions onto one of several images of animals to provide information that might not be sufficiently discussed with the use of solely direct questions (Duncombe & Hussey, 1999). These perceptions were considered both in the context of regular alcohol and zero percent alcohol and collected data that has been categorised into the following subthemes of appearance, behaviour, and personality characteristics.

#### 4.3.1 Appearance

In describing the animal that they chose, participants would subjectively describe the appearance of the animal, relating this description back to what a zero percent or regular alcohol drink would look like if personified.

*Fluffy, so like soft. It's got a friendly look about it. But obviously, it's not friendly.  
It's very aesthetic to look at.*

(Respondent 1)

*It's quite a grey cat. It's very cute. But it's grey, it's white, it's very small. And I think nat- I think if it was by itself, I'd say it's a gorgeous, cute, gorgeously cute cat. But you look at the comparison as well, I think, you put all these really cool animals in front of me, the hyena, the panda, you know, chimpanzee. Animals you don't get to see that often, but they've also got a bit of character to them.*

(Respondent 3)

*Yeah. So for me, when I think of zero percent alcohol, I obviously think of not being drunk when in a place where you maybe could be. So that sort of panda is more soft than a lot of other animals.*

(Respondent 6)

A reoccurring description made by participants is noted by Respondent 1, in which zero percent alcohol is considered to have a deceptively friendly look. This comment was perceived to relate to zero percent alcohol's separation from regular alcohol, in which at surface level they may appear similar, but in reality, the former lacks alcoholic content. This was built on by other participants, such as with Respondent 22: *"I think it just looks like the appearance with the toughness. But yeah, is, the personalities are different."* Alternatively, some participants shared a similar view to Respondent 3, in which a cat (which represented zero percent alcohol) was grey and was not as interesting to look at as other animals. This description infers that something is seen to be lacking in zero percent alcohol. Furthermore, the chosen animal was described to be less interesting than other animals, which likely represent other types of drinks within this symbolism activity, and was confirmed in later discussion with participants. Therefore, it would appear zero percent drinks do not retain the appeal that participants see in regular alcohol drinks or did not provide a desirable alternative to the drinks that participants enjoyed. Finally, Respondent 6 described their chosen animal as soft, referencing the lack of intoxication. This appeared less of a negative association, but rather denoting that *"zero percent alcohol is just, I guess, alcohol but softened. You don't get the, maybe the aggressive, things"* (Respondent 16). Based on participant comments, soft related to an appealing appearance, lacking a harsh element normally associated with regular alcohol. Overall, the appearance of zero percent alcohol was primarily depicted as less harmful but also less interesting than regular alcohol. Interestingly, descriptions of regular alcohol were more neutral or negative, despite the apparent preference for it.

*They're quite loud. And like, it's not like they're aggressive or anything but just like, very large presence. You know, and like, drunk and stuff...*

(Respondent 20)

*Yeah, I think, yeah, just the correlation between hyenas being a bit more messy, and like, wild, would definitely have, definitely correlates to having more alcohol to me.*

(Respondent 24)

As Respondent 20 indicates, the appearance of regular alcohol is large, insinuating a more obvious presence, which in turn relates to it being easy to notice someone who is drunk. In comparison, Respondent 24 describes a more negative aspect of drinking regular alcohol, in which it leads to being messy and wild, unlike zero percent alcohol which was considered tidier. It should be noted that these negative descriptions were prominently used in reference to heavier levels for drinking, however, lower levels of drinking did not receive a clear description of the appearance they were thought to have. Reflecting on the above findings, this could be due to the lack of visible indicators of intoxication at these lower levels of consumption.

#### 4.3.2 Behaviour

In their description of zero percent or regular alcohol, participants would describe the behaviour that they believed the respective products would enact when personified. Unlike with appearance, zero percent alcohol appears to be viewed less positively at this level.

*Because cats are on high alert. Cats are - As you can see, it's a very curious cat. And they're speedy and they're fast. ... They're alert but they're more timid.*

(Respondent 10)

*So the dog is pretty like happy and playful. And kind of like, so I'd probably say that zero percent alcohol isn't as like fun. People wouldn't, people wouldn't probably see it as, as fun as like normal alcohol.*

(Respondent 15)

*Yeah, I think, yeah just a rabbit is just very on edge. And I feel like that symbolizes the zero percent. Because you've got no, no alcohol in there. And you're, you're ready to go when you need to. ... A cat, I still, I feel like it could fit*

*in with the zero percenter just because again, it's quite fast. And also the fact that it's, you know, they're quite isolated, by themselves.*

(Respondent 18)

Respondent 10 describes zero percent alcohol as speedy and alert, potentially due to the ascribed timid behaviour. This linkage is likely built upon the lack of inebriation, which several participants noted made regular alcohol slow when personified. The point of being timid appears to relate to another point made by participants, in which those not consuming regular alcohol are viewed poorly by certain people. As a result of this, drinkers of zero percent alcohol may hold concerns about being caught drinking it. Respondent 15 also notes zero percent alcohol as inferior to regular alcohol, describing the correlated behaviour it produces as less fun. Participants sharing this perception considered zero percent alcohol as being less participatory, or not genuinely part of an occasion involving regular alcohol. This is built on by Respondent 18, who considered zero percent alcohol on edge and isolated, which, once again, alludes to the belief that a lack of intoxication suggests an issue with the person consuming it. However, while there was a higher disregard for zero percent alcohol, there were also favourable descriptions.

*Um, I think the tortoise, I didn't think zero alc because of how slow they are. And I think no one's, when you drink, drinking zero alc you're functioning fine. You know, you're not slow.*

(Respondent 3)

*... Maybe just like the dog, the golden retriever. Cuz it's already such a kind of happy and playful, already energetic. It doesn't really need - It's already kind of got his own buzz going. It doesn't need a buzz to kind of get into the party sort of.*

(Respondent 21)

Respondent 3 highlights zero percent alcohol as not being slow, once again expressing the difference in behaviour between said drink category and regular alcohol. They expand on this, noting a commonly mentioned use of zero percent alcohol, being its ability to provide functionality. Arguments in favour of zero percent alcohol often focused on this capacity to avoid the negative effects associated with regular alcohol, allowing one to retain their physical and mental status as it would be outside an alcohol drinking setting. Respondent 21 also offers an alternative view on the lack of fun associated with zero percent alcohol earlier,

suggesting that it might also be energetic and playful. Engaging in this behaviour is described to replace the buzz initially attributed to solely regular alcohol. This suggests that if an individual drinking zero percent alcohol makes an effort to match the behaviour of regular alcohol drinkers, they can still achieve the same level of enjoyment. This also echoes the findings of the literature review, in which self-efficacy can affect a person's perceived need to consume regular alcohol (Buyucek et al., 2019). Compared to those with drinking motives that make them think they need regular alcohol to have a good time (Palfai et al., 2011), high self-efficacy zero percent alcohol drinkers appear to see alternative ways to have fun in the same setting.

In comparison, regular alcohol was described in reflection of the physiological effects it has. Descriptions of behaviour were more varied than those of appearance, with distinctions made between binge drinking and moderate drinking.

*... Because dogs are very social, and they're quite hyper sometimes, especially when they see people and other dogs. So drinking alcohol, as you mentioned before, can make people more social and they come out of their shell ...*

(Respondent 8)

*You're just a bit of a, you're just a bit of a monkey when you're on it, just a bit all over the place. ... But, everyone, you know everyone's a bit more goofy when they're on alcohol.*

(Respondent 12)

*... I would say the rhino because it is very, extremely, like masculine, it doesn't have a very good reputation. It is extremely powerful, in the animal kingdom. And it's pretty ugly. And it just looks like it can cause a lot of damage, because it can, and I feel like alcohol is just such an, like a terrible drug really.*

(Respondent 14)

Taking a more positive approach, Respondent 8 explains that regular alcohol is very social and hyper. This alludes to regular alcohol's ability to change behaviour in such a way that the person consuming it will not feel as uncomfortable as they might without the substance (Buckner & Shah, 2015). This further allows them to interact with others better than they feel they would sober. In turn, Respondent 12 describes regular alcohol as monkey-like, and goofy, which is linked to the actions of someone who is inebriated, showing clear (external) signs of being drunk. This behaviour is one that appears difficult to replicate when drinking

zero percent alcohol, and potentially even creates in-groups and out-groups. However, regular alcohol was also often described in relation to the negative behaviours it brought out. Respondent 14 describes how the rhino represents regular alcohol due to lacking a good reputation, being powerful, and causing damage. In other words, it causes harmful behaviour, that is frowned upon. This description was common among participants, primarily in the context of binge drinking or those predisposed to those behaviours. Overall, regular alcohol appeared to be recognised for its dangerous qualities, but the positively perceived effects they also bestowed ultimately superseded the negative ones. Furthermore, participants rarely considered or discussed whether they would engage in such behaviour in the same situation, or otherwise suggested they would not act out. Comparing this rationale to participant perceptions of zero percent alcohol, it would appear the consumption of zero percent alcohol is subjectively correlated with behaviours contrary to those participants wish to exhibit.

#### 4.3.3 Personality characteristics

Personality characteristics involved perhaps the most in-depth depiction of both zero percent and regular alcohol in relation to the symbolic meaning they held for participants. For both product categories, they outlined positive and negative personality traits that they perceived to reflect the relevant product's image.

*I associate hyenas with aggression, and antisocial behaviour. And I don't think you'd be drinking a zero percent alcohol beverage if you're an antisocial, aggressive person, I don't think you'd be with anyone.*

(Respondent 10)

*The chimp squatting, looks like how I'd feel watching my mates all drinking and I'm drinking 0% beer. ... I'm a lower ape hominid, and I'm just sort of chilling there like, man, he looks kind of sad. He's just like, oh, man, everyone else is having fun. ... I'm just, I'm just there. I'm just existing while everyone else is enjoying.*

(Respondent 13)

*Yeah, the chimpanzee. I think that because it's kind of like, I feel like they're quite social as well. And like, you know, just he looks like he's chilling as well. ... Whereas I feel like, you know, monkey, or like, a dog's got a bit more energy.*

(Respondent 20)

In the quote from Respondent 10, they differentiate zero percent alcohol through contrasting its personality with an antisocial and aggressive person. For zero percent alcohol, this delineated a more social person, who is less prone to aggression. Other participants would commonly agree regarding the aggressive nature of a regular alcohol drinker, describing someone who drinks zero percent alcohol who is lacking hostility. However, a more mixed response was received concerning sociability, as Respondent 13 outlines. Their quote describes zero percent alcohol drinkers as sad and “just existing”. This implies that zero percent alcohol drinkers are anxious or introverted, essentially an outsider to a regular alcohol drinking environment. In other words, drinking zero percent alcohol is seen to culminate in the antisocial characteristics that Respondent 10 considered separate. Despite this, participants such as Respondent 20 suggested sociability in relation to having more energy. Respondent 25 presented this point more directly, stating “... *I don't think of people who drink zero percent alcohol as being these like socially awkward, or like outcasts, or like, you know, needing a reason to feel anxious or kind of out of place or anything.*” Comparing participant responses, it appeared that they perceived zero percent alcohol drinkers to be either introverted and attempting to conform with regular alcohol drinkers, or extroverted and able to enjoy themselves in a regular alcohol environment.

As the above conclusions imply, regular alcohol was seen to involve more outgoing traits, and reflect the intention to interact with others. Negative aspects were also mentioned, however, once again, they were attributed to a predisposition to such characteristics.

*... Chimpanzees I often see as being like semi childish but also acting a fool, kind of under a bit mean and scary but also playful and that's very much for me what I would associate with alcohol ...*

(Respondent 6)

Respondent 6 gives a quote that describes regular alcohol as mean and scary, but also playful. This was a reoccurring dichotomy within regular alcohol. Similar to behaviour, the degree to which one is intoxicated brings different characteristics to surface. However, an important distinction was made regarding being mean and scary, or playful and foolish, in which one's personality before drinking regular alcohol was held responsible for whichever traits surfaced. As explored above, zero percent alcohol was similar, with its consumption having

little effect on their personality. However, the main finding was that with zero percent alcohol, the effects of one's personality can be attenuated more reliably than when inhibited by the physiological effects of regular alcohol.

#### 4.4 Drinking motives

As the product zero percent alcohol is primarily compared against, regular alcohol is considered for the primary influences in its consumption. In interviewing participants, there was evidence for all four drinking motives outlined by Cooper (1994). These are further described to deviate into external and internal categories (Kuntsche & Cooper, 2010). In relation to the internal categories, physiological motives provided regular alcohol with a greater value than zero percent alcohol. This subtheme encompassed the motives of enhancement and coping motives. It should also be noted that this did not always mean it was the better choice, but simply a variable that provided regular alcohol with more appeal. Following this, the two remaining subthemes outline the external motives of social and conformity motives respectively. For social motives, setting socialisation was highlighted by participants as shaping what drinking patterns felt comfortable. On the other hand, the peer pressure in a given drinking environment reflected the conformity motive.

##### 4.4.1 Physiological motives

Commonly discussed with participants, physiological motives involved either enhancement or coping motives for drinking. In discussing reasons why regular alcohol might be preferred or why zero percent alcohol may be avoided, being able to become inebriated was primarily referenced as the defining factor.

*Yeah, yeah. Like, if I'm drinking alcohol, I'm drinking it to feel drunk, or, you know, not, not necessarily write myself off, but at least have something there.*

(Respondent 13)

*Yeah, I'd definitely be going for regular alcohol because it's just like, I enjoy getting drunk.*

(Respondent 17)

*People, do it [binge drinking] to have fun, or relax from their week, celebrations. Or, on the other hand, if people are feeling, you know, bit depressed, sort of drowns out that feeling.*



(Respondent 22)

Both Respondent 13 and Respondent 17 establish their preference to be intoxicated, establishing it as the most prominent reason for drinking regular alcohol. Respondent 22 fixates on binge drinking and associates this stage of consumption with drinking for enjoyment or escape through said intoxication. This further alludes to the enhancement and conformity motives that are contained within physiological motives of drinking, which were expanded upon by other participants. Enhancement motives were somewhat pervasive, with participants briefly outlining how the positive affect it provides encourages the consumption of the alcoholic drinks that provide it.

*...As sad as it is to say that, a lot of people drink because you love that feeling of being drunk and getting to that good point. And that's just not going to happen with zero percent. There's no ways of getting around it.*

(Respondent 9)

*Some people just love the feeling of getting smashed, and love the carefree lack of control that they have. They like that feeling. For a lot of people that's that.*

(Respondent 10)

*I think it's, it's a bit fun, you know, depending how far you go with it, you go, sort of, the five or six, you know like, sweet, I'm feeling way more glonky than I was before. And then I think, you know, if you can stop at that level, then you know, you're gonna have a good time.*

(Respondent 13)

Respondent 9 and Respondent 10 described enhancement motives as using alcohol to heighten an experience and reduce inhibitions beyond what would be possible in a setting without it. Respondent 13 also establishes a third category, where the enjoyment of drinking is gamified, and an individual tries to drink as much as they can while still feeling pleasant. Respondent 9 further touches on these physiological effects in relation to zero percent alcohol, confidently claiming a clear discrepancy between it and regular alcohol. This was a reoccurring view, with most participants describing zero percent alcohol's ability to be a replacement as limited as a result of this.

*Um, well, I feel like when you go out and have, say, a full box of beers, you're really only drinking the first, say like maybe four, for the taste of the beer itself. And so then the rest of it, you're drinking for the alcohol, for me personally. And so if you were to go out to a party drinking non-alcoholic beers, then I feel like you're not going to want to have more than like six or something like that.*

(Respondent 17)

Participants primarily concurred with Respondent 17's view, appearing to see zero percent alcohol as a replacement for only moderate drinking. Interestingly, few participants considered this as a way to reconstruct drinking motives, and instead most participants linked its limited substitutability to reasons why they would continue to drink regular alcohol.

The other side to physiological motives, coping motives, was more prevalent for participants when they described why people would drink regular alcohol. Participants who indicated coping motives often outlined an awareness of the problematic side of drinking. Furthermore, the mention of coping motives was more prominent in discussion of the motives for binge drinking (Rather than regular or moderate drinking).

*Yeah, that's, they probably seek those physiological aspects because they, they're, they're not - they want to escape, they don't want to, they're, they want to almost lose control a bit, not feel responsible for - and just be themselves whether that be like perhaps they have depression or sadness, or they might - Or maybe it's just because some people drink because they have, it helps with their anxieties and their ability to socialize.*

(Respondent 2)

*...Some people may just love drinking, because they love getting pissed as, but I feel like a lot of people, especially in New Zealand, and that is part of the, so ingrained in the culture, I think a lot of people will just choose that over actually dealing with the problems firsthand, 'cause it's a very quick way of sorting things out internally.*

(Respondent 5)

For the most part, coping motives are negative, however there is still a slight mix in perceptions between participants, as represented by the quotes above. Respondent 2 describes

the physiological motives as a way to help an individual ease undesired feelings and subsequently feel better. In contrast, Respondent 5 describes it as a heuristic method of addressing problems, albeit ineffectively. From this perspective, coping motives are an improper way of trying to deal with internal issues. In relation to this problem, Respondent 20 considers their personal use of alcohol.

*Like having something in my hand, to like fidget with really helps me to kind of like - It's almost like it's distracted one part of my brain, so the other part can focus, you know. So I feel like with the, like having, you know, a beer in your hand, and just kind of like, you can take a step in between pauses or like it gives you something to do and just kind of, you're not just sat there with your hands like not doing anything.*

(Respondent 20)

The quote above suggests that the simple act of holding a beverage of any variety eases negative feelings to a degree. If this is the case, it suggests that a drink such as zero percent alcohol could indeed be used as an alternative method of addressing coping motives. That said, as coping motives contain multiple variables that cause it to become prominent, it is uncertain as to whether it would be a pervasive solution. Regardless, whether it pertains to enhancement or conformity related reasons for drinking, the analysis of these psychological motives ultimately provides a greater understanding of the current perceptions of regular alcohol, and by association, zero percent alcohol.

#### 4.4.2 Setting socialisation

When asking participants about what affects their consumption of regular alcohol or zero percent alcohol products, beyond the physiological effects, discussion often explored the setting in which the act takes place. Relating to both zero percent and regular alcohol, conversation around setting ranged from the type of setting participants would be in, to people in the setting. This exploration of setting provided the equivalent of social motives for drinking, wherein both the setting of importance and objective of social motives is related to interacting with others.

*When I think about binge drinking, I think I'm in a space where there's lots of, y'know, lots of people that I know. And I like binge drinking, because they're also binge drinking.*

(Respondent 7)

*- I guess it [binge drinking] can help you, depending on the situation that you're in or... Where that, it can help you to have a better time. If you're kinda in that, space - I feel like that'd be the main, yeah. Lots of music and stuff. Late into the night.*

(Respondent 21)

*...Reason why people binge drink from my experience as a student, as a young guy, I think, is for the fun and the social setting. And I think if my friends weren't doing it, if it was even just me and one other, even like one other friend, you'd still do it. But I think, yeah, if you didn't have, if you didn't have a group of friends doing it, I will struggle to justify it.*

(Respondent 3)

A regular alcohol setting typically consisted of a livelier atmosphere or one that aimed for social interaction. As the above participants appeared to insinuate, an individual's level of consumption, in this case binge drinking, is significantly influenced by the setting. As Respondent 7 explains, their preference to binge drink is predicated on being in a space with people they know, who are also binge drinking. Respondent 21 discusses this further, indicating that binge drinking is a given within a party-like environment, improving the experience overall. In turn, Respondent 3 directly places importance in the social element of drinking regular alcohol, asserting that higher levels of drinking are difficult to justify without the support of friends. Building further on these points, Respondent 6 considers that activities that take place in certain drinking settings.

*We talked about drinking games. So that's a big thing. And also just drinking as sort of a catalyst for a conversation or catalyst for things to happen. Because I think without drinking, it's hard to have, especially people 18 to 25, it's hard to just get people together for a whole day to do nothing and sit around and talk without having drinks, I think.*

(Respondent 6)

The quote above makes an importance distinction, outlining a view that socialisation with peers is difficult without the involvement of drinking regular alcohol, or at least the games or events that are associated with drinking behaviour. Overall, it appears that participants view the consumption of regular alcohol as integral to certain settings if they desire to effectively interact with others. This apparent importance in socialisation influencing regular alcohol use was further made clear by several statements from participants, such as *“I don't think the alcohol by itself is fun. I think you've gotta have people around you, to, you know, yeah, perhaps an enabler, I guess.”* Here, Respondent 24 inadvertently challenges the importance of physiological motives for drinking regular alcohol, suggesting that it is secondary to social motives. While this is not confirmable as a population wide truth, it does imply that while drinking regular alcohol is independently viewed positively, it is, to some extent, consumed for the purpose of creating a more pleasant setting.

When describing a zero percent setting, participants would indicate its overlap with an environment with a focus on socialising and relaxing. The insinuation here was that zero percent alcohol can replace regular alcohol consumption in a setting that does not have physiological motives for drinking, and instead serves as a medium by which individuals can interact.

*Yeah, I'd say that zero percent is definitely like more of like a social thing. Like, I feel like you're more likely to have that zero percent when you've got some people around for a barbeque or something, rather than just having it with your dinner, sort of thing.*

(Respondent 17)

*...In terms of conversation and dancing, and that a lot of people including myself, are slightly reserved in terms of being social and environments when sober. I think just about everybody is except for those, especially older people you see, like Burning Man and stuff that are just high on life. Yeah, they're just having a good time, not because of any substances or anything, they're just happy to be themselves. And I think that because that, not, it's not discouraged, but it's not very prevalent because of everybody's got insecurities and whatnot, especially when they're in social environments.*

(Respondent 6)

As is indicated by Respondent 17, the use of zero percent alcohol was commonly associated with a social setting such as having a barbeque, rather than a setting focused on being more active, such as a club. While this appears to reassert the supposed need for regular alcohol, at least in party-like settings, Respondent 6 outlines an example in which a change to one's physiological state is not compulsory to enjoy oneself. In their example, they suggest that the perceived need for regular alcohol stems from a lack of self-efficacy. As found in the literature review, this further suggests that a higher level of self-efficacy could lead to an individual consuming less regular alcohol, or at least address their misperceptions about its necessity in creating a positive experience. It is unclear if this would increase positive perceptions or usage of zero percent alcohol, however, it appears apparent that social motives for drinking are the most favourable for enabling zero percent alcohol consumption.

#### 4.4.3 Peer pressure

For some, zero percent can be an ill-advised drink of choice due to how others may perceive them, or at least are presumed to. Instead, it may often be preferred to drink regular alcohol to conform to drinking expectations. While few participants indicated being pressured into drinking, instead enjoying the activity, they often acknowledged that there was certainly potential for someone with less self-efficacy to be pressured.

*Um, definitely, like peer pressure. Like lots of drinking games and stuff makes people drink a lot. Like peer pressure in general, like, non-drinking, non - Like, if you don't have a drink in your hand, someone is always around you is always like, "oh, do you want me to get you another one?" And yeah, just like, to fit in.*  
(Respondent 15)

*At the moment, I'm actually wanting to drink a little bit less because I want to focus on my masters and everything. So I've actually been thinking about like, oh, what do I do when I get invited to drinks at a friend's or something, like, am I just gonna sit there with nothing or like, you know, do I just drink a couple of like, normal percent alcohol, alcoholic drinks.*

(Respondent 20)

*There's, there's a, there's a whole thing of like, status, of, "I can drink more than you, I'm, I'm a heavy, I'm a hard, like, I'm harder than you are". That whole thing, led to it. There's also just like, the effects. And there's also, I dunno. There's, there is the status thing - This is, like, ropes into the actual alcohol, like*

*non-alcoholic thing. Like, you want to look like you're drinking, you're gonna look like you're having fun. If you drink lots, you look like you're having a fun time.*

(Respondent 23)

The above quotes describe multiple instances in which peer pressure exists. Respondent 15 denotes the expectation of drinking, in which an individual is inadvertently coerced into drinking more regular alcohol than they wished. This example does not indicate malicious intent, but rather appears the product of a perceived social norm to be drinking regular alcohol, and therefore absence of such a behaviour is considered unusual. While offering another beverage is perceived by the relevant party as considerate, the receiving party interprets anything other than acceptance as harmful to their social standing. Respondent 20 shows the social norm aspect of peer pressure. In their quote, they point out that they want to drink less, yet also reveal that the thought has caused an internal debate in relation to drinking with others. In other words, while they would like to drink less regular alcohol, there is a perception of negative affect arising from not drinking with their friends. Finally, Respondent 23 highlights the connection between regular alcohol consumption and status. It is related to showing off how much you can drink, and how much fun you are having, indicated by how much you can drink. This once again insinuates that to not drink regular alcohol would endanger perceived social norms.

The three respondents above give examples of peer pressure that were commonly shared across participants. In comparing these quotes, they appear to show a pattern of unintentional peer pressure. Within the interviews with participants, it appeared that they were able to exercise a degree of self-efficacy and stop drinking when they wish, however it was apparent that there was some level of perceived social expectation. This is reminiscent of perceived descriptive or injunctive norms, which influence the degree to which someone feels they need to be drinking to fit in (Neighbors et al., 2007). However, despite this focus on unintentional peer pressure, there were still examples that extended to more intentional or negative scenarios.

*And I think that, and that is always going to be a lot of pressure to drink alcohol and to drink too much alcohol. And I feel like that, unless someone's actually got those reasons to not drink, so they have a reason to be sober, like driving, I don't*

*know what other environments, but there's certainly other things that I've wanted to be sober for before. Unless there is that requirement, there's a lot of pressure, to drink alcohol.*

(Respondent 6)

*And then if you're the sober person at a party, sometimes you're seen as being like, no fun, and it's like, oh, they're the downer at the party, because they're not at the same level as all the rest of us. Just terrible.*

(Respondent 25)

In the case of Respondent 6, they reference a more subtle pressure of drinking more regular alcohol than one is willing. As several other participants reiterated, when drinking with others there was an expectation that a large quantity of regular alcohol should be drunk to fit in, even if it is an uncomfortable amount. They also bring up a commonly mentioned view that the decision not to drink requires a valid reason, as a lack thereof would not be accepted by those who are still drinking regular alcohol. Respondent 25 directly outlines the response of peers in relation to people not drinking, in which they view them poorly. It is this fear of invoking such contempt that can lead to peers' opinions and behaviours becoming idealised, potentially taking precedence over one's own beliefs (Borsari & Carey, 2001) and thereby creating the unintentional peer pressure explored earlier. With this in mind, it becomes apparent that zero percent alcohol holds a unique position within the alcohol sphere.

*... But because you don't want to feel left out of the group, and the social stigma surrounding alcohol, particularly in a place like New Zealand or Australia, where alcohol was a big part of our culture, and drinking is a huge part of our culture, particularly in sort of like our age range. You want to drink zero percent alcohol just so that you're not left out.*

(Respondent 9)

*I guess there's a bit of a stigma. If you see someone drinking a zero percent, probably, the younger you are the worse it is like, if you're 18/19 you see someone drinking a zero percent, you're like, "what are you up to?" Like, c'mon, like we're young.*

(Respondent 13)



Zero percent alcohol has the potential to address peer pressure, in that it attempts to replicate the look of and taste of regular alcohol so that external and internal sources of judgment are satisfied. As Respondent 9 indicates, zero percent alcohol can provide a way to remain part of the culture around drinking alcohol in New Zealand, and not be ostracised for such reasons as not drinking anything at all. While this appears to still relate to some peer pressure due to the inability to feel comfortable not drinking, zero percent alcohol was presented by participants as a compromise that minimises physical and social harm. This said, not all participants felt this way. Respondent 13 outlines the problem, reasoning that there is still stigma around drinking zero percent alcohol. Referencing the earlier quote from Respondent 25, they specify that any act of not getting intoxicated, not matter the drink, can be viewed negatively. Ultimately, zero percent alcohol consumption can be significantly affected by conformity motives for drinking, in which an individual either consumes the alcohol alternative as a compromise, or refuses it to avoid disappointing others.

#### 4.5 Substitutability

In the analysis of consumers' thoughts on zero percent alcohol, the investigation of the category itself is of course of strong interest. With a lack of relevant literature to effectively discuss specific topics of importance with participants, prominent interests or concerns individuals had around zero percent alcohol had to be discovered as recurring themes across interviews. To this end, three points were identified as most prominent in influencing a participant's perception of whether zero percent alcohol could replace regular alcohol. These were usability, taste, and cost, which are expanded upon below. Usability is considered a culmination of all the participants' cognitive and emotional thoughts, directly expressed as their outspoken interest, aversion, or ambivalence towards zero percent alcohol. Taste and cost outline the most significant internal features reported by participants as influencing their likelihood to consume zero percent alcohol. It is these three subthemes together that focus on what exactly is the divide between regular and zero percent alcohol, and to what degree.

##### 4.5.1 Usability

Participants had a range of different ideas about the application of zero percent alcohol, however their ability to theorise the potential situations zero percent alcohol could be used did not indicate their personal preference. In exploring this with participants, a significant

majority expressed their perception of zero percent alcohol as a substitute over a complete replacement, preferring regular alcohol over the ethanol-lacking alternative.

*I don't think it's a select occasion. And I don't think it would replace drinking alcohol, except in situations where I couldn't drink alcohol? So in situations where I'm driving, or I want to be sober for whatever reason, then I would definitely consider it. So perhaps if I was drinking, if I had an occasion where I plan to drink alcohol, it's because it's got alcohol in it, not because it's the taste or anything like that.*

(Respondent 6)

*I think it's probably a good replacement for those who want to maybe wean themselves off alcohol. Say you find yourself drinking too much. So you think, "Oh, I have a 0% Steinlager for every normal Steinlager I have."*

(Respondent 4)

*I think that if I decided that I wanted to stop drinking alcohol, then, yeah, zero percents could potentially substitute in there, because it's just always nice having a beer on a nice Saturday afternoon or something. And so if I decided to cut alcohol out, then yeah, I definitely think that zero percent is good substitute in there.*

(Respondent 17)

*I think I can go without drinking alcohol, say for the rest of my life, and have zero percent alcohol. But occasionally, I probably would have an alcoholic drink. But yes, I can live without the alcohol and have zero percent alcohol drinks.*

(Respondent 8)

The three quotes above echo the varying responses participants gave regarding zero percent alcohol as a regular alcohol replacement. Respondent 6 denotes the commonly shared view of using zero percent alcohol as a substitute, primarily in circumstances where regular alcohol cannot be drunk, and therefore they are forced to choose another option. They also further point out their preference for regular alcohol based on the previously considered physiological motives of drinking. Expanding upon the inability to drink regular alcohol, Respondent 4 mentions a commonly suggested use of seeking to address their consumption levels of regular alcohol by either alternating or replacing it with zero percent alcohol drinks.

Respondent 17 considers the use of zero percent alcohol to a slight lesser degree, reinforcing that its use would be tied to ceasing the consumption of regular alcohol, only in this case to a more permanent degree. In comparison, Respondent 8 represents a more open consideration of zero percent alcohol, speculating upon whether they could switch from regular alcohol, and answer favourably. However, they appear to also possess an inability to completely part with regular alcohol consumption, or at least perceive some regret arising if they were to do so. Among those more open to zero percent alcohol as a replacement, concerns such as this were prevalent. It is noted, however, that the interview sample was based on people who do not currently consume primarily zero percent alcohol, so it would be unlikely to encounter a completely favourable response. To this end, Respondent 3, who was among those least opposed to consuming zero percent alcohol, provided the following quote that reinforces the nature of the chosen sample:

*...And so I think for that, you know you said that there's - that's the place and time where it's sort of essential, but I think yeah for me it's more a problem of, not the problem of not drinking it, it's a problem of why drink zero percent.*

(Respondent 3)

In comparing the various quotes from participants, it becomes apparent that a majority of participants expressed a willingness to consume more zero percent alcohol in the future. However, this of course is juxtaposed with their ambivalence towards drinking zero percent alcohol presently. Beyond these individuals, a small number of participants also denoted negative elements of zero percent alcohol, or a general dislike for it.

*In the distant, distant future, if I was ever to give up alcohol, in the beginning stages of that I wouldn't mind zero percent because then it conceals the fact that I'm not actually drinking alcohol. So that would be the only, probably purpose why, if I was with others, and wanted to look like I was still drinking alcohol. Other than that, no.*

(Respondent 10)

*...However, I think that there is - You can also like, just cut down on your drinking, slowly, and then decide one day "actually, I don't want to drink". Cuz like, I dunno, I did that. I went, like 20 standards in a night, and then down to like, 10, and then then to five and then like, one, and then I just, now I'm too poor,*

*which is kind of like both on me, but also because I don't really like alcohol that much anymore. So, so I don't drink it much.*

(Respondent 23)

Focusing on respondent 10, they mention that consumption of zero percent alcohol would be to hide that they are not drinking regular alcohol. This alludes to a fear of social rejection, which would potentially mean consuming zero percent alcohol would not be a (mentally) healthy behaviour, due to not addressing the main problem. Further along, Respondent 23 expressed discontent with zero percent alcohol, suggesting that a desire to not drink regular alcohol should focus on decreasing consumption levels, rather than seeking a similar alternative. In the provided quote and in other sections of the interview with them, they elaborated on zero percent alcohol as an unnecessary drink, and that non-alcoholic drinks were a better solution, or otherwise, “*you also could just like, have no, you could have water.*”

Overall, this section suggests that current perceptions are not favourable for zero percent alcohol to become a complete replacement any time soon. There appears to be a strong consideration among regular alcohol drinkers of zero percent alcohol as a substitute, but it is also unclear to what degree this exists. That said, there were several factors identified as influencing perceptions around substitutability. Building upon this finding, the following sections on taste and cost explore the most prominent factors and consequentially allude to the idea that these current views are not static or could potentially be changed.

#### 4.5.2 Taste

A varying degree of views on zero percent alcohol were collected. The most common element identified, other than the lack of physiological effects, related to taste. In fact, participants would often indicate that after removing the alcoholic content from a beverage, the decision to consume the drink predicates on whether it is an enjoyable enough taste.

*I guess it depends on the taste of it. If I start drinking alcohol more for the taste, then maybe, but I'd probably see myself not drinking alcohol before I just substitute all my alcohol consumption for zero percent – zero percent beers, or sorry, alcohol just in general. Yeah, I'd say with beer specifically, I guess, there's different categories of alcohol, I guess, beer specifically I'd drink it more as like*

*an enjoyable, like, for the taste, while the other methods of alcohol of, you know, the RTDs, spirits and all that, that I don't - That's more like trying to become intoxicated. So I wouldn't switch to zero percent for that aspect. But for beer, maybe potentially.*

(Respondent 16)

As is reflected by Respondent 16, a number of participants pointed out that certain consumption decisions around regular alcohol were solely predicated upon intoxicating oneself, and in the process forgoing any consideration of taste – particularly with categories such as spirits. This alludes further to the idea that taste, while a significant factor for a wide range of individuals, is not population-wide motive in drinking. Respondent 13 reinforces this finding, stating “*Yeah, because I mean, all alcohol, I mean, especially beer, beer tastes like sh\*t anyway. The only reason I'm drinking it is 'cause it's got alcohol in it.*” However, despite this apparent disregard for zero percent alcohol, in an alternative light it suggests that when taste is unimportant to an individual, zero percent alcohol is less appealing. Beyond this, Respondent 3 provided insight into a more feasible method of zero percent alcohol consumption for those disliking the taste of alcohol.

*...But I'm very familiar with alcohol free beer. I think I struggled to find one, as most people will probably say, that I'd love, you know, that I've drunk a beer and been like "that's, that's good. I really like that for the taste."*

*...Have to say though, the best one I've had is zero percent Export Citrus and that is good. That is actually, now that I'm thinking about it, that is one that I'd actually have - I have had, and do have for my own enjoyment. It's like a really nice lemonade.*

(Respondent 3)

In the interview with Respondent 3, they mentioned the validity of zero percent alcohol as a straightforward replication of regular alcohol flavour, however they emphasized the desire to improve the taste of zero percent alcohol drinks to justify drinking it over regular alcohol or non-alcoholic drinks. Taste of non-alcoholic drinks in particular were primarily referenced as more desirable for those entertaining regular alcohol alternatives. Respondent 6 provides an example of this, stating “*I like zero percent alcohol. I don't drink very much of it. Generally, because I prefer the taste of other non-alcoholic drinks - fizzy drinks, or water or ginger beer*

*or that sort of thing. But I like it.*” Despite this apparent preference for better taste, there were still a significant proportion of participants who mentioned a contradicting desire for zero percent alcohol to focus on precisely emulating the taste of a regular alcohol drink.

*Yeah, and I'm like, that, I would be miffed if I was someone who picked it up thinking "Oh, great, it's kind of gonna taste like a Corona or something, have this like citrus taste to it". And then I pop it open and it just tastes like I'm drinking straight up lemonade.*

*... Because, yeah, I think sometimes they forget that people who drink non-alcohol, or zero percent alcohol, actually still like the taste of alcohol. And then they try and go too far from that.*

(Respondent 25)

This perspective was further reinforced by participants who perceived a limited number of zero percent alcohol variants, which decreased the likelihood of them choosing a zero percent alcohol drink. Respondent 9 provides an instance of this below.

*So obviously, from the limited number that is available, so there are certain drinks that you'll love and enjoy, that aren't offered in zero percent. I still love having, but I still love having like whiskey. And there's this Irish one that I sometimes drink and it's really good. And you can, you don't have that full range of like zero percent alcohol.*

(Respondent 9)

Here, it appears that the participant has an openness to a whiskey without alcohol, describing an interest beyond purely alcohol content. This quote appears to suggest that the unavailability of their desired drink flavour negatively impacts their desire to consume zero percent alcohol drinks. In sum, it is clear that taste is a factor that can strongly impact perceptions of zero percent alcohol, with its potential to be a regular alcohol alternative having significant ties to its ability to meet the varying taste criteria individuals have.

#### 4.5.3 Cost

Alongside taste, cost was another prominent variable that participants would reference in their consideration of whether to drink zero percent alcohol or not. Some participants were

more concerned with price than others, but ultimately there was a common finding of price sensitivity. For those more concerned with the pricing of zero percent alcohol, they would compare it to regular alcohol, and perceive some amount of opportunity cost.

*I mean, maybe also, because people don't want to spend like money or like similar prices for something that they've - They're used to having those physiological effects and like they associate the price that they pay for the beverage to include those physiological effects, when they - and then when they see a zero percent beer or whatever, they'll think, I don't really want to buy that it's not worth it. It's practically juice.*

(Respondent 2)

*...And it's, the price difference between a 12-pack zero percent and a 12-pack normal - Like, honestly, most of the time the normal stuff's cheaper than your zero percent. Which, yeah, definitely affects that, because who wants to pay more money for something where you're not even getting an effect out of it? So yeah, I do, I do think that is a problem in itself. And it just doesn't make sense to me why it is more expensive.*

(Respondent 18)

Both Respondent 2 and Respondent 18 outline a prevalent issue with the regular alcohol alternative. Both participants perceive the lack of physiological effects as something that should decrease the product cost, but does not. Respondent 18 in particular appears confused at the perceived discrepancy, suggesting either a lack of knowledge available on why zero percent alcohol is priced as it is (such as production costs), or that zero percent alcohol is alienating its potential consumers by pricing based off of regular alcohol prices. This view, that was replicated among several participants, suggests that regardless of the reason, cost is indeed a factor of zero percent alcohol products that is currently problematic for possible consumers. Respondent 2 also pokes at another facet of zero percent alcohol cost that is considered problematic by participants in this study, which is how it compares to non-alcoholic drink costs.

*If I was like - the, one of the reasons that I drink Coke is because it's cheap. Well, not because it's cheap compared to alcohol, but as - if I'm not going to drink, then why would I spend 20 dollars on a box of non-alcoholic [zero percent]*

*beverages? I might as well buy a box of coke cans for five dollars rather than spend 25 on a non-alcoholic [zero percent] beverage.*

(Respondent 6)

As Respondent 6 explains in greater detail, non-alcoholic drinks such as soft drinks can be considered preferable due to their considerably lower pricing, in what is perceived to be a similar product category (An alternative to regular alcohol drinks). In other words, this significant discrepancy in price is shown to be problematic for zero percent alcohol consumption when the two product types are grouped together. Nevertheless, a significant number of participants challenged this view, positing that, to them, cost was not a static barrier to zero percent alcohol consumption.

*I think it would definitely serve as a replacement for people that, I feel like people that could afford it, would buy them more in the bars.*

(Respondent 15)

*... Probably like the cost of going out in total, not just the drinking, like, per drink.*

*... Yeah, you're buying, like you end up only buying a few drinks as opposed to, heaps. And like, like I said, Uber, food later, hangover food the next day, it becomes a big cost.*

(Respondent 15)

Similar to Respondent 15, a theme appeared to be that being financially secure or having cheaper zero percent alcohol drinks would make participants more likely to consume it. This openness suggests that, for some, cost is the primary factor in their decision making around zero percent alcohol consumption. The second excerpt from participant 15 points out the significant factor of external costs that can build up as a result of choosing to drink regular alcohol. While it is unclear whether there would be a significant difference within the population, this still shines a light on a positive feature that could be attached to the image of zero percent alcohol in the future.

Ultimately, cost did not seem to be as strong a factor in determining perceptions of zero percent alcohol as areas like taste, but nonetheless, it appeared to still carry weight. Furthermore, it illuminated the value proposition of zero percent alcohol in comparison to a



non-alcoholic drink. Beyond this, the most significant finding in relation to cost is that participants primarily felt that it was too high, either in general, or in relation to their current stage in life.

#### 4.6 Chapter summary

In the current chapter on research findings, four major themes found within the collected data were explored. The themes were an individual's *knowledge*, the *symbolic meaning* alcohol holds for them, their *drinking motives*, and the *substitutability* of zero percent alcohol for regular alcohol. It was determined that these themes, and their relevant subthemes, were the most important individual areas in understanding the current symbolic meaning and general perceptions of zero percent alcohol to participants.

The *knowledge* a participant possessed related to the understanding they had of zero percent alcohol, which consequently would influence their perceptions of it. This was made up of the subthemes of definition and source influence. These different elements considered how knowledge was gained, interpreted, and influenced, which appear as foundation for constructing symbolic meaning of zero percent alcohol, and from which other themes appear to stem from to some degree. Next, *symbolic meaning* compared and contrasted participant descriptions regarding the animal association task, outlining the positive and negative perceptions they had towards the respective product categories. Three subthemes were constructed, these being appearance, behaviour, and personality characteristics. Throughout this theme, zero percent alcohol was primarily differentiated based on the indicators normally associated with being intoxicated, to both positive and negative affect. Following this, *drinking motives* established the different reasons regular alcohol was viewed favourably or unfavourably. These reasons were categorised into physiological motives, setting socialisation, and peer pressure. Through these subthemes, regular alcohol was often construed as a necessity to enjoy themselves or avoid exclusion. Lastly, *substitutability* gathered what participants actually felt towards zero percent alcohol. This involved the three subthemes of usability, taste, and cost. All three areas researched likes and dislikes of zero percent alcohol (and regular alcohol by comparison), to better understand values around drinking, and issues that may be addressed to facilitate certain consumption behaviours.

Overall, participants did not seem entirely receptive to zero percent alcohol as a replacement for regular alcohol, with any interest being limited or conceptual. The four major themes and their respective subthemes analysed in this chapter reveal the various elements at work to form this present view. In the following chapter, this is further unravelled in relation to the research objective and relevant questions.

## Chapter Five – Discussion and Conclusion

### 5.1 Introduction

The current chapter builds on the previous chapter and its findings regarding this thesis's research. These findings are applied to the research questions posed as a response to the literature gap identified in Chapter two. Following this, the academic and managerial implications of this research are outlined. Next, the limitations within this thesis and directions for future research are addressed. Lastly, this chapter concludes the journey of the current thesis in some final reflective remarks.

### 5.2 Interpretation and Discussion of Findings

The literature review in this thesis considered zero percent alcohol, both indirectly and directly. To begin, regular alcohol was researched, investigating what advantages or disadvantages it has for problematic drinkers. Through this, the arguments for or against zero percent alcohol could begin to take shape. To further the overall understanding of consumer perceptions of zero percent alcohol, its symbolic meaning was also researched. Motives of drinking were identified as potentially being subconscious in nature, and thereby required the consideration of symbolic meaning to uncover a deeper understanding. Researching symbolic meaning for zero percent alcohol provided a medium through which it could be most efficiently compared to regular alcohol in the context of being a potential replacement. This was particularly important when perceptions of zero percent alcohol were not clear at surface level. Next, an analysis of (primarily) reduced alcohol was conducted due to the lack of research on zero percent alcohol. In light of this, research on reduced alcohol offered a substitute that could help inform what conclusions could potentially arise out of researching zero percent alcohol.

Regardless of the conclusions that arose from researching other alcohol alternatives, this previous research should not be used as a proxy of consumer perceptions of zero percent alcohol. Therefore, a major gap had been identified, which led to the formation of two research questions, and the collection of the data exemplified in the previous chapter. Within the current chapter, these questions are answered, and are as follows:

- What are perceptions of using zero percent alcohol as a replacement for binge drinking?
- How do the symbolic meanings of zero percent alcohol/regular alcohol influence their consumption?

### 5.2.1 Research Question One

The first research question focuses on directly investigating the different traits that regular alcohol binge drinkers see in zero percent alcohol. When participants were asked about their perceptions of zero percent alcohol, certain descriptions were more assertive or concrete. An alternative classification is that research question one denotes participant's perceived functionality of zero percent alcohol in achieving personal goals within the setting they would normally be drinking regular alcohol. This was considered one aspect of a whole picture, with research question two providing its counterpart. Within the following section, several themes and their findings from Chapter Four help answer the current research question.

### 5.2.2 Key Findings of Research Question One

The first research question focuses on identifying whether zero percent alcohol can replace regular alcohol. More specifically, it is considered within the context of people who binge drink, with this being a more concerning drinking behaviour to address than that of people who only drink moderate amounts of regular alcohol (Palmer, 2010). Further details on these various concerns with binge drinking are explored in more depth in section 2.2.1. This aside, the current question will now be discussed through reference to zero percent alcohol's definition as understood by consumers, the physiological motives consumers have, and zero percent alcohol's replaceability for regular alcohol.

Before the consideration of perceptions of zero percent alcohol, consumers' understanding of the product must first be considered. To this end, the importance of this particular point appears to be consistent over both literature and the current study's findings. The literature review touches upon the importance of providing sufficient knowledge to consumers on labels, for beverages such as reduced alcohol or zero percent alcohol (Shemilt et al., 2017). Furthermore, how a broader importance of the terminology could affect perceived quality of these drink categories is also outlined by Bucher et al. (2018). The findings of section 4.2.1 build on this literature and discovered a limited understanding of zero percent alcohol's

definition. When asked for definitions of zero percent alcohol, participants either delineated a lack of knowledge, or focused on specifically zero percent beer. As has been previously noted in this study, possessing appropriate knowledge allows one to make educated decisions in consumption (Pritchard, 2006). In this context, it appears that participants may not be making educated decisions. As a result, this reinforces a view that participants had a limited understanding of zero percent alcohol and thereby limited their likelihood of consuming it. It should be noted that this particular point has symbolic meaning connotations, which will be further outlined in research question two. Nevertheless, participants' definitions of zero percent alcohol were not completely off track, suggesting that a lack of understanding of what zero percent alcohol is was not a prominent reason for the lack of consumption. However, investigating this particular point led to a coincidental, important finding, as elaborated on below.

Within this topic, a similar finding was found in the context of the definition of binge drinking. As section 4.2.1 also outlines, it appeared that participants of this study did not have a proper understanding of what exactly constitutes binge drinking, instead measuring it through physical indicators like being intoxicated. Such a view is concerning, particularly when literature indicates that tolerance can be raised with frequent consumption, requiring a larger amount to be drunk to continue feeling the physiological effects of regular alcohol (Bresen & Mekawi, 2021). Nevertheless, this findings section indicates that a significant number of participants were surprised to learn the academic definition of binge drinking, with some even reflecting on their own drinking habits. The findings show that when reflecting upon binge drinking with more objective information, it appears that it is less desirable for study participants. It is this discovery that reinforces the prior conclusion that knowledge (through definition) holds importance in alcohol related consumption. Therefore, rather than a limited understanding of zero percent alcohol, it appears that instead a limited understanding of the definition of problematic drinking is more prominent. For the moment it would appear that, among this study's participants, understanding what zero percent alcohol is does not increase the potential it has to replace regular alcohol (as literature might suggest), however, this may not be the case for problematic drinking.

This research also directly sought information on how participants viewed zero percent alcohol as a replacement. Within previous studies, a small but growing interest in alcohol alternatives has been observed (Anderson et al., 2020). The primary interest in such products

is also associated with avoiding inebriation, or taking care of ones' health (VicHealth, 2010). The main takeaway from this literature is that reduced alcohol is only consumed for an active goal of preserving an ideal physical state. This point was reflected in findings section 4.5.1, where study participants were noted as considering zero percent alcohol as a substitute, or contingent on being able to still drink regular alcohol on occasion. Furthermore, zero percent alcohol was clear in being a solution to more serious drinking problems, whether they be a commitment like sober driving, or for addressing excessive consumption of alcohol.

For reduced alcohol, there was limited information that could differentiate motives around its consumption from those of zero percent alcohol in previous literature, however, the current study's findings suggest that the answer may lie in physiological motives. Regular alcohol has been described to have four motives that influence its consumption (Cooper, 1994). In relation to physiological motives, the motives of enhancement and coping are the relevant categories. Through these particular motives, alcohol provides a subjectively better experience, or avoids negative feelings (Kuntsche & Cooper, 2010). Within the context of zero percent alcohol, there is an obvious lack of alcoholic content, which would surely eliminate the chance of achieving the desired physiological state regular alcohol provides. Indeed, this assumption was echoed by participants in the current study, as outlined in section 4.4.1. For them, alcohol was drunk for the purpose of getting drunk, and being able to discern a change in their behaviour as a result. It appeared that there were certain experiences that would be hindered by having a more functional state of mind, which could only be rectified through use of an external modifier like regular alcohol. This also meant binge drinking was considered hard to replace due to its direct objective of achieving such a state. Participants made clear that this made it even more difficult for zero percent alcohol to be considered a replacement due to the obvious lack of intoxication.

A connection also arose between the earlier point on high quantity consumed due to wanting to get drunk, and potentially being even higher due to high tolerance. Due to zero percent alcohol having no alcoholic content, there is no point to drinking a higher quantity of drinks. For several participants in this study, this was a significant discrepancy, in which the drinking behaviour of someone drinking regular alcohol versus that of a zero percent drinker would be noticeably different. In the context of being a regular alcohol replacement, this asymmetry does not favour use of zero percent alcohol. Despite this, an apparent placebo effect has been found in previous literature on reduced alcohol consumption, in which consumers would

perceive symptoms of regular alcohol consumption, despite none being present (Bodnár et al., 2021). For zero percent alcohol, this could potentially suggest that certain effects of alcoholic content that are more psychosomatic in nature could still be achieved given the right conditions, or the right person. That said, it cannot be confirmed whether this would hold true for zero percent alcohol, especially when considering the fact that reduced alcohol drinks still contain a margin of alcoholic content, which may affect its placebo effect capacity.

While this may infer that regular alcohol cannot be replaced by zero percent alcohol, current research participants did not unanimously relate their interest to enhancing how they feel. In the case of coping motives, it was suggested that such causes like anxiety did not have to be exclusively addressed through inebriation. One such view within the findings described using zero percent alcohol as a tool to partially distract oneself while in a social setting, thereby lessening the likelihood of negative feelings arising. This intoxication-lacking solution is an ideal alternative, particularly when previous literature indicates that regular alcohol may not be as effective as one might think in relieving stress and other negative feelings (Anthenelli, 2012). Either way, when considering the findings of participant perceptions of zero percent alcohol's usability, several people thought there was no point to drinking it, instead preferring to drink nothing at all, or a non-alcoholic drink in place of regular alcohol. With this discovery, it appears that consumption of zero percent alcohol still encounters resistance and is once again person or situation dependent.

Beyond physiological motives, two other prominent features were identified in the findings as impacting the likelihood of zero percent alcohol consumption, these being taste and cost. Previous research on the taste of reduced alcohol found that there were clear views that denoted a disdain or enjoyment of this product category. Exemplifying this, some consumers enjoyed reduced alcohol's healthier nature, whereas others often cited its lacking flavour in comparison to similar regular alcohol drinks (Chrysochou, 2014). These areas of interest were mirrored by participant responses in the current research, particularly so the element of flavour, or otherwise taste. As was indicated earlier, there were a number of participants who drank regular alcohol solely to get drunk – these people also specified their disinterest in taste. For these people, zero percent alcohol was not as appealing.

Conversely, a large number of participants in this study also noted that taste was important to them, and that they would even be open to a similar tasting zero percent alcohol drink. Within this dichotomy, once again there is evidence of conditional zero percent alcohol consumption, in which those not interested in taste appear to not be the right target audience for said drink. That said, interest could potentially be sparked through the provision of a health-related product, which was commonly, albeit briefly, mentioned when participants described reasons someone might drink zero percent alcohol. However, another counterpoint appears, in that this was often ascribed to zero percent alcohol being used as a substitute when physical health was a concern. This constitutes a bigger issue, in which abstinence from regular alcohol is perceived to need justification, a wider-reaching problem with alcohol consumption in general (Supski & Lindsay, 2017). Nevertheless, one final observation regarding taste was that several participants in the current study expressed a desire to see more variety, or higher quality in zero percent alcohol drinks. From this it can be surmised that while zero percent alcohol does not currently appear to be a likely replacement for regular alcohol so far, addressing these concerns with taste may change this.

Although not as prominent, cost was a noticeable factor affecting interest in zero percent alcohol, as denoted in section 4.5.3 of the findings. Interestingly, no previous literature could be found regarding perceptions of reduced alcohol costs. This could either be due to lack of research, or simply that it is not a concern for this particular alcohol alternative. If the latter is the case, it suggests a discernible difference between reduced and zero percent alcohol in consumers' eyes. The most obvious difference this could be is the alcohol content, which while small, is still present in reduced alcohol. This conclusion appears reinforced by the findings in section 4.5.3, in which lack of alcoholic content caused issue for participants regarding cost. More specifically, participants found issue with zero percent alcohol being of similar price to regular alcohol, despite the absence of the alcoholic content. It was thought that this missing ingredient should lead to a lower price, yet this was not the case. Another issue was how the price compared to non-alcoholic drinks. For many, both zero percent alcohol and non-alcoholic drinks were quite similar in use, except the latter held more appeal in its significantly lower cost.

While this appears to alienate the consumption of zero percent alcohol, participants also expressed an openness to zero percent alcohol regarding price. One perspective taken was that rather than being unreasonably expensive, zero percent alcohol was more for someone of



a more secure financial position. This particular finding suggests that the initial ambivalence towards zero percent alcohol's cost was potentially influenced by a lower financial position, which is more common of their age bracket of 18 to 25 (Statistics New Zealand, 2023). Another perspective offered by a participant of this current study suggested that regular alcohol was significantly more expensive due to external factors, such as foolish purchases while drunk, amenities to help with hangovers, and so forth. This is further supported when considering the earlier point on the lower quantity of zero percent alcohol drinks usually drunk, in comparison to the higher amount of regular alcohol drinks bought to get intoxicated. Overall, this appears to be similar to the earlier findings on knowledge, in which being more informed may change more negative views towards zero percent alcohol. Nonetheless, the majority of participants in this study did not consider zero percent alcohol a regular alcohol replacement purely based on cost, at least at present.

The goal of research question one was to investigate whether zero percent alcohol could become a replacement for regular alcohol. This was done for the purpose of understanding current perceptions of zero percent alcohol in general, a field in which no literature could be found when researched for this thesis. Considering its ability to replace regular alcohol was necessary due to this being its main purpose as an alcohol alternative. Furthermore, if such a finding could be confirmed, it would suggest an ability to be used to resolve problematic drinking. Unfortunately, as this section appears to demonstrate, zero percent alcohol cannot currently serve as a replacement for regular alcohol.

The first point of significance is that not only is zero percent alcohol underdeveloped in academic fields, but also in participants' minds. Their knowledge was found to be lacking, particularly around definitions of binge drinking. This meant that the use of zero percent alcohol did not seem as important, or as useful to them, thereby not being viewed as a replacement. Furthermore, some participants were adamant regular alcohol advocates, certain that they would always want to drink some amount of regular alcohol, or otherwise drink nothing related to the category. Beyond this, only certain occasions were seen as useful for drinking zero percent alcohol, such as needing to sober drive. In such a circumstance, this drink was simply a temporary substitute. There were also better replacements indicated, with reduced alcohol or non-alcoholic drinks being preferred by participants. However, there was also evidence to suggest that this inability to be a replacement is static. For instance, addressing lacking knowledge of certain definitions, such as binge drinking, hinted at being

able to attenuate ambivalence towards zero percent alcohol. Similarly, bringing attention to lowered costs of drinking zero percent alcohol on a more holistic scale could also increase positive perceptions of choosing such drinks. Nevertheless, such developments are not in place currently, and within the scope of the current research zero percent alcohol could not be called a replacement for regular alcohol binge drinking.

### 5.2.3 Research Question Two

The second research question recognised the limited nature of a direct approach to an unfamiliar field (both to the researcher and participants), and thereby sought to investigate details on a deeper level. Within the literature review it was indicated that there was a deeper level to alcohol consumption than just physical attributes. This opened up the consideration of symbolic meaning, which related to beliefs and attitudes, and what forms them. Research question two had the intent of investigating this symbolic meaning in the context of zero percent alcohol, providing the other half of the picture from research question one. The following section answers this question with reference once again to relevant findings from Chapter Four.

### 5.2.4 Key Findings of Research Question Two

Within the context of the current research question, it would seem that participants' limited understanding of zero percent alcohol means it would be less likely to be a replacement for regular alcohol, their current drink of choice. This core conclusion is cemented further by Inman and Zeelenberg (2002), who denote the preference to maintain current behaviour rather than change to something unfamiliar, which carries risk of an undesirable outcome. Within the literature review, this risk perception is attributed to the concept of attachment, which in turn is considered a facet of symbolic meaning. For participants, this manifested less as a disdain for zero percent alcohol, but rather as there being no subjective reason for them to be consuming it in the first place. As will be elaborated on within this section, several preconceptions and inhibiting factors have led to this view, which appear to not be in favour of zero percent alcohol.

Section 4.3 showcases the findings of a projective technique – a way perceived to effectively uncover symbolic meaning of a given topic (Hussey & Duncombe, 1999). Through this method, several categories were formed based on participant responses. The first was appearance, in which the visual components of zero percent alcohol were described. These

descriptions primarily depicted zero percent alcohol as softer and tidier, compared to regular alcohol which looked aggressive, messier, and large. This distinction appeared to relate to the intoxication regular alcohol has, which can change one's state of mind. Zero percent alcohol was further described as looking similar to regular alcohol, but ultimately possessing underlying differences, reflecting its identity as a replacement. For regular alcohol, the words used were of a more negative nature, reflecting the unsophisticated actions commonly associated with being drunk (Heath & Hardy-Vallée, 2015). In contrast to this, zero percent alcohol's more refined appearance was likely owed to the absence of alcoholic content perceived to cause such unfavourable actions.

Intriguingly, while this appears to suggest that zero percent alcohol would ultimately be more appealing, this was not the case. The reasoning appears to arise due to the description of regular alcohol specifically relating to problematic drinking. Since more intoxication means less control of oneself (Kuntsche et al., 2017), it becomes more likely that an individual will show visible symptoms due to lack of rationality. Due to this connection between visibility and drunkenness, this may have influenced descriptions of what regular alcohol drinking looks like. That said, another finding was that participants did not connect such behaviour to themselves, or otherwise to a low degree. As a result, participants believed their consumption did not require change. While this may indeed be the case, it should be noted that part of the selection criteria was that participants engaged in binge drinking – A behaviour linked to problematic drinking. With this in mind, it may be that a change in consumption habits is ideal. However, while changing to zero percent consumption might be a healthier practice, it also risks going against social norms (Wills, 2005), such as consuming regular alcohol over alcohol alternatives. In other words, even if there was a negative personal view of regular alcohol consumption in general, interpersonal beliefs would supersede them. This was proven through certain participants expressing that they would feel uncomfortable if they were to exhibit the dishevelled appearance linked with problematic drinking, calling it embarrassing, yet not showing any intention to change their consumption habits. Essentially, while the appearance of regular alcohol is unpleasant, social norms dissuade participants from letting this affect their consumption decisions.

Building on the above points, behaviour was also discussed with participants. More specifically, they were asked what sort of behaviour they would link with both regular and zero percent alcohol. Zero percent alcohol behaviour was described as excessively alert, fast,

and less fun. It appeared that zero percent alcohol was seen for its high functionality, a state that at face value appears beneficial, ultimately meant that one was overthinking things, and not really in the moment. This was more the case for regular alcohol, which was slow, social and goofy. For regular alcohol, the associated behaviour was more relaxed and not taking things so seriously. Comparing the two, participants saw the behaviour correlated with regular alcohol as preferential, and zero percent alcohol behaviour as unappealing.

On the other hand, there were also alternative behaviours described for each of these categories. For zero percent alcohol, its functional aspect was also viewed positively. More importantly, it was suggested by participants that if an individual had high enough self-efficacy, they would be able to drink zero percent alcohol and still have an equivalent experience to those subjectively associated with regular alcohol. This particular finding aligns with previous literature, in which higher self-efficacy attenuates the perceived necessity to consume regular alcohol to have a good time (McAndrew et al., 2019). Within regular alcohol consumption, this good time is achieved through placating social norms, so avoiding this process altogether with zero percent alcohol appears ideal. Furthermore, regular alcohol behaviour is also described in a way that reflects its appearance, causing damage to its surroundings, and possessing a poor reputation. However, once again, such a description was linked to higher drinking levels, like binge drinking. Additionally, when comparing the behaviours that are exhibited through regular alcohol consumption, participants weighted the positive behaviours higher than the negative ones, making said consumption worthwhile.

Another explanation for participants' continued regular alcohol consumption, despite their negative framing of it, was found in descriptions of personality characteristics. In this category, zero percent alcohol had mixed responses, but also had stronger negative connotations. Zero percent alcohol was described as introverted, or slightly lacking in energy in a social setting compared to regular alcohol. In turn, more positive possessed the aforementioned self-efficacy, in which someone who had a confident personality would not feel a need to "fit in" with regular alcohol drinkers. Regular alcohol also possessed a similar dichotomy, either being described as scary, or otherwise foolish. As noted earlier, these varying perspectives were allocated to different types of drinking. However, in discussion of personality with participants, they indicated that this unappealing behaviour was, to a degree, predicated on one's core personality. In this explanation, regular alcohol only brought

existing personality traits to the surface, rather than creating new ones. Such a claim is not completely unfounded, with previous research supporting this finding (Room, 2001).

Nevertheless, two issues arise out of these conclusions. Firstly, even if this poor behaviour is only exhibited by certain people drinking higher amounts of regular alcohol, this does not make it the cause of unhealthy consumption levels. Therefore, this is more relevant to societal wellbeing, in which personality needs to be addressed separately from alcohol, so that such behaviour is removed from current drinking environments, irrespective of how much is drunk. Regardless, such measures do not appear linked to changing regular alcohol consumption levels – the main interest of this research. This leads to the second issue, in which it appears that participants are inadvertently connecting dangerous levels of drinking with dangerous behaviour. Since the latter does not apply to them, they may be assuming that the former does not either. Once again, the reoccurring conclusion is that the binge drinkers within this study do not currently perceive their drinking to be problematic, meaning that any negative associations they have with regular alcohol is disconnected from themselves. It is acknowledged that participant binge drinking may have been infrequent enough to not be a lasting health concern, however, the danger it possesses should not be underestimated. To this end, future research may wish to investigate how these views change based on binge drinking frequency.

Beyond personal perceptions of zero percent alcohol, other people's views influenced how one's own views formed. One such influence was information source, which related to where a participant learned of zero percent alcohol from. Upon discussing this topic with participants, it was elaborated that the degree to which a given information source was able to influence an individual was based on the worth they held in a relevant individual's eyes. As prior literature states, a source's suitability was based on how similar they were to the person receiving the information (Escalas & Bettman, 2005). That is, an opinion of a close friend or family member typically had an underlying symbolic meaning not present in an arbitrary advertisement on television. This was further linked to constructing self-identity, in which someone similar to oneself was considered best due to a higher likelihood of a subjectively better outcome (Escalas & Bettman, 2005). Within the context of regular or zero percent alcohol, participants explained that their consumption was often based off what they learned from valued sources, and further chose to drink with similar patterns to them. This further extended to certain views that would normally be associated with personal experience, such

as having a disdain for the taste of zero percent alcohol despite limited or no interaction with it. Additionally, participants showed limited efforts to learn about zero percent alcohol, trusting information that came from these trusted information sources, and that affirmed their continued consumption of regular alcohol.

Participants also revealed that zero percent alcohol was not commonly consumed or talked about within their relevant reference groups, instead primarily learning about it through seeing advertisements or other more removed information sources. This was not favourable, with participants wanting to learn what is good and bad for themselves, through personal efforts. This finding was reinforced by established literature, which stated that when authoritative figures advocate for less harmful alcohol consumption, people may view this as being told how to consume (Harrison et al., 2011). Furthermore, even though it would be objectively safer to not consume regular alcohol and risk encountering its negative side effects, participants indicated that they would only be motivated to do so if they personally encountered these problems. Overall, participants were more reliant on an information source that they had more affinity with, or was otherwise themselves. In comparison, more removed information sources advocating for zero percent alcohol did not appear to hold any symbolic meaning, thus lacking the value or connection that was associated with a “trustworthy” opinion.

Within the above discussions, it was hinted that there was a reason for participant attachment to regular alcohol, beyond just enjoyment of the product. This appears to be explained through referencing the subthemes of setting socialisation and peer pressure within section 4.4. Setting socialisation related to participants’ perceived need for intoxication to better interact with other, or otherwise saw regular alcohol as the drink of choice when with others. Those who brought this up said that regular alcohol facilitated anything from partying with others, to casual socialising at a bar. In such a situation regular alcohol was a way to connect with peers, and therefore held strong symbolic meaning within such settings. In comparison, zero percent alcohol was seen as a limited form of regular alcohol. Some participants described occasions such as a barbecue, which did not necessitate getting intoxicated to participate, as the ideal place for zero percent alcohol. There was mention of the possibility to participate without being intoxicated on any occasion, but this was limited. For the most part, participants believed that certain social settings were fundamentally lacking without regular alcohol.

In contrast to the social motives for drinking associated with setting socialisation, peer pressure related to conformity motives. While drinking regular alcohol is often considered fun, neglecting to do so is seen as unusual, and can invite scrutiny (Supski, 2017). Sometimes unintentional, participants recounted being offered a drink, and feeling like they had to accept to fit in. Sometimes it was also intentional, with participants noting how people not drinking are sometimes seen as no fun. It is this pressure that ends up leading to such behaviours as binge drinking, due to fears of being ostracised (Bresin & Mekawi, 2021). There is even personal pressure, in which consuming more is seen as a mark of social standing, with a low tolerance being looked down on. As symbolic meaning literature states, this behaviour relates to status, in which it subjectively boosts one's image and expresses identity (Liu et al., 2021). The source for this peer pressure that is unconsciously used and received is social norms and general culture around drinking (Bagozzi et al., 2021), something just as relevant for setting socialisation as well.

Culture, and social norms, can be a crucial part of everyday life, dictating a persons' behaviour, thoughts, and feelings, and even how they present themselves to the external world (Spencer-Oatey, 2012). This can be to both positive and negative affect, and potentially be uncontested in its rationality. With alcohol consumption this is no exception. Drinking culture is shown to encourage drinking, especially in large quantities, and also construes drinking itself as both a bonding activity and a way to inhibit or facilitate certain emotions (Savic et al., 2016). Within this explanation, the link can be seen to the previous few paragraphs on setting socialisation and peer pressure. More specifically, these manifested as occasionally expressing concern with ceasing alcohol consumption, or not consuming enough. That said, it was also found that participants often asserted a disdain for being expected to drink in large quantities, primarily attributed to a problematic New Zealand drinking culture. This aversion to certain regular alcohol expectations did not necessarily suggest a preference for drinking zero percent alcohol, but it did indicate a reframing of alcohol culture, which may further indicate a shift towards the healthier alcohol consumption that zero percent alcohol supports. Either way, participants were seen to be influenced by a culture of regular alcohol drinking, that discourages zero percent alcohol consumption for them at present.

The goal of research question two was to investigate how the symbolic meaning of zero percent and regular alcohol affects their consumption. This was done for the purpose of gaining a deeper understanding of the subconscious perceptions of participants, or otherwise delve into topics they could not articulate by themselves. This was with the intention of building upon research question one, and further understanding how appropriate or inappropriate zero percent alcohol is as a regular alcohol alternative. Understanding the underlying symbolic meaning was further thought to illuminate the factors that might influence its consumption positively or negatively. Throughout this section it is clear that regular alcohol consumption is facilitated by multiple factors, such as cultural background, that zero percent alcohol simply does not have. As a newer beverage that attempts to take some of regular alcohol's market share, zero percent alcohol is viewed less favourably, even though it is viewed as a healthier drink physically and spiritually.

Appearance, behaviour, and personality characteristics associated with either regular or zero percent alcohol do not hold much influence on consumption due to no issue being perceived with binge drinking practices. Most participants did not consider themselves to be engaging in problematic drinking, and therefore did not consider change necessary. Upon analysing the other facets of symbolic meaning, it is suggested that external influence and social norms may be encouraging such responses from participants. The information source from which zero percent alcohol was learnt about was found to link trustworthiness to the connection and subjective value the source itself had in the participant's eyes. Since most sources for learning about zero percent alcohol were authoritative or impersonal, it appeared that participants were inclined to be less receptive to any information given. Additionally, culture and social norms were found to be strongly in favour of regular alcohol, creating both disinterest and fear around choosing anything else to consume. Nonetheless, there is suggestion of a change in such beliefs. Within descriptions of zero percent alcohol and people who might drink it, perceptions of a better lifestyle and culture were associated with the product. Through this it appears that the participants of this study recognised the symbolic meaning of zero percent alcohol to be that of healthier consumption both personally and for society.

### 5.3 Implications of the Current Research

Following the analysis and discussion of the research carried out for this thesis, it becomes pertinent to put it in context. The following section delves into wider implications of current



research. Firstly, the theoretical implications are discussed, noting what and how this study has contributed to the relevant academic field. Managerial implications are also considered, delineating the more practical outcomes and recommendations of this research.

### 5.3.1 Theoretical Implications

This research has contributed to alcohol related literature, by picking out zero percent alcohol and exploring it in a qualitative sense. Upon finding the literature on zero percent alcohol to be non-existent, the researcher has sought to illuminate this field within the academic space by discussing perceptions around it. Within literature there were several other alcohol alternatives, such as reduced alcohol, that provided findings that could potentially be applied to zero percent alcohol, however this was not definite. Therefore, the current research was deemed necessary.

Previous literature on reduced alcohol, does share quantitative analysis with zero percent alcohol regarding levels of interest in said drinks (Anderson et al., 2020), however this does not consider zero percent alcohol for its individual interest, nor any detailed perceptions consumers may have towards it. Other literature on reduced alcohol finds health and taste to be two factors influencing perceptions towards it (Chrysochou, 2014). The research of this study found these two points corroborated in the context of zero percent alcohol by interview participants. For health, participants denoted zero percent alcohol as a method of stopping problematic drinking, or to temporarily avoid intoxication due to other commitments. This said, as well as a temporary measure, zero percent alcohol was also viewed as a permanent measure. Those who held this view indicated that drinking this beverage was a decision to remove oneself from getting intoxicated, and environments that facilitated such behaviour. No literature on reduced alcohol seemed to reflect this, instead seeming to be viewed as a healthier way to get drunk (e.g., Serafini et al., 1998). Nevertheless, participants suggested that regular alcohol, reduced alcohol, or even non-alcoholic drinks were preferable over zero percent alcohol.

As well as being able to compare to and build on reduced alcohol literature, regular alcohol was also relevant within the findings of this research. The literature of regular alcohol suggested several drinking motives that subsequently implied the importance of symbolic meaning in an alcohol drinking context. Further research into symbolic meaning found a deep cultural background to this context, which created social norms around regular alcohol

(Berends et al., 2016; Charters, 2022; Fennis & Pruyn, 2007). Exploring this symbolic meaning with interview participants revealed that these norms were subconsciously influencing perceptions towards zero percent alcohol. This related to such reasons as fear of social exclusion, or simply believing intoxication to be an integral part of certain settings. Furthermore, due to their preference for regular alcohol, participants did not seem very open to learning about or trying zero percent alcohol. Ultimately, participants' attachment to regular alcohol, whether enthusiastic or reluctant, was found to be negatively affecting perceptions of zero percent alcohol. However, within a projective technique activity, participants were found to primarily describe zero percent alcohol more positively than regular alcohol. The reason this did not result in favourability towards personal consumption of zero percent alcohol appeared to be due to a lack of connection between their own drinking habits and problematic drinking. From this it was also discerned that zero percent alcohol is primarily perceived to be a replacement in face of problematic drinking.

An alternative factor that participants reported would encourage zero percent alcohol consumption was taste, as mentioned earlier in the context of reduced alcohol. Taste was the most favoured reason for zero percent alcohol consumption, stated to be an enjoyable aspect of regular alcohol that was potentially nice to have without alcoholic content. Despite this, taste was also found to be lacking for some, or not of interest. Furthermore, several participants stated that zero percent alcohol lacked a range of options, something that was not found within reduced alcohol literature.

Another contrasting finding from reduced alcohol literature was around cost. It was found that zero percent alcohol invoked more sensitivity around price, something that the researcher could not find discussed in any literature on reduced alcohol. This was explained to be due to the absence of alcoholic content which participants argued should lower its price – yet they had not observed an instance of this happening. With zero percent alcohol costing similar to regular alcohol, but being without this ingredient, other alcohol alternative were more preferable.

In summary, this research built upon previous research in multiple avenues, and uncovered new findings. Firstly, it built on alcohol alternative literature, specifically beginning the research upon the unresearched category of zero percent alcohol. In its efforts to do so, it also compared and contrasted these findings with reduced alcohol, to bolster the understanding of

both drink categories. For zero percent alcohol, it was found to be less appealing than reduced alcohol and other alcohol alternatives, due to such factors as no alcohol content. Secondly, it analysed zero percent alcohol within the context of regular alcohol, constructing an understanding of how appropriate a replacement it is perceived to be. This was done in part through analysis of symbolic meaning of zero percent alcohol, which revealed deep rooted participant perceptions that discourage positive views of zero percent alcohol. That said, zero percent alcohol was not viewed as harshly as regular alcohol, which had more negative connotations. Finally, the individual properties that inhibit or encourage zero percent alcohol were outlined. To inhibit, cost appeared to be most prominent, and taste respectively encouraged zero percent alcohol consumption. Through these discoveries, zero percent alcohol literature has begun to take shape in a previously empty section of academia. Reflecting on these findings, zero percent alcohol has been found to be of low personal importance, but with multiple factors that could be subject to change, and thereby cause variance in zero percent alcohol consumption.

### 5.3.2 Managerial Implications

While marketing is often seen to have the intention of selling people products they may not need or want, there is also alternative marketing that exists to improve society in some way. Social marketing involves such an approach and has even been used extensively in addressing alcohol misuse (Gordon et al., 2006; Kubacki et al., 2015). It is with this same intention that zero percent alcohol was researched, seeking to discover the viability of zero percent alcohol as a way to address problematic drinking. More specifically, this study wished to know whether zero percent alcohol could replace regular alcohol for those who binge drink. As a result of the current research, participants revealed that they were not particularly open to consuming zero percent alcohol. However, while this suggested zero percent alcohol was not a useful solution to problematic drinking, participants indicated that they did have positive associations with zero percent alcohol, and were not completely averse to consuming it. From a managerial perspective, this indicated that with the use of certain measures, this consumption could be further encouraged.

One way social marketing helps drive such change is through upstream and macro-level policy changes (Wood, 2012). Based on the findings of this research, using such a method was deemed appropriate to deal with several different causes of participant ambivalence towards zero percent alcohol. The first policy suggested is to do with the cost of zero percent

alcohol products. From participant comments, it became clear that, to them, the price tag on zero percent drinks was illogical. Due to the lack of alcoholic content, they expressed that they would be unlikely to consume it while it was the same price as regular alcohol. Due to this, it is proposed that, through policy, this difference is subsidised. Zero percent alcohol is a way to experience the same taste of regular alcohol without endangering oneself, and therefore should be made more accessible as a result. This subsidy would serve to lessen the barriers around safer drinking behaviour. It should be noted that further research would need to take place before implementing such efforts, due to potential side effects. For instance, a gateway effect may occur if the alcohol replacement is too cheap. Nevertheless, this is considered a particularly useful solution to address the current ambivalence towards zero percent alcohol.

Another policy change that would be useful would be implementing a universal standard for labelling and descriptions of zero percent alcohol. Current labelling laws around zero percent alcohol in New Zealand - from where participants were found - are limited, or do not provide strong guidelines (Ministry for Primary Industries, 2022). Furthermore, research findings indicated that participants' knowledge was limited, and communication of relevant information was lacklustre. Participants also reported occasionally mixing up regular and zero percent alcohol, ultimately leading to worse perceptions of zero percent alcohol. With this in mind, making policy that helps organise information efficiently would help address these problems. This should also be universal, as individual companies with various definitions and descriptions would only serve to confuse consumers further.

Beyond the use of policy, this research also provides general information that can in turn be used to advise social marketers in their efforts to address problematic drinking. The first point of interest is that zero percent alcohol is perceived to be more relevant to an older demographic. It was found that the study participants of 18 to 25 considered zero percent alcohol something more affordable for someone older than them, and thereby (subjectively) financially stable. Additionally, they indicated that they would likely only consider consuming zero percent alcohol when they were older and felt the need to be healthier with their consumption habits. Based on these points, social marketing efforts should focus on reframing this view.

Social norms were an additional point of concern, with participants indicating that their preference for regular alcohol was partially due to cultural influence and pressure. To address this zero percent alcohol needs to be reframed in such a way that consumers realise that they can achieve similar or equal satisfaction through zero percent alcohol to that of regular alcohol. One suggestion of such a way is through more informal social marketing campaigns. This suggestion is based on the findings on information source influence, in which participants inferred that they disliked being told by authoritative figures how to consume, and instead preferred sources that they had an affinity for. Another suggestion relates to one of the statements from a participant, in which zero percent alcohol was used to distract oneself and lessen anxiety. This was mentioned in juxtaposition to an apparent misconception that regular alcohol is effective at relieving stress and other negative feelings, when it is merely a temporary solution (Anthenelli, 2012). This study found participants agreeing with this sentiment, and further indicating that such behaviour was a social norm. Contrasting these two findings suggests a new approach for social marketers, in which zero percent alcohol consumption is encouraged as a means of reflecting on the true effectiveness of regular alcohol in dealing with negative feelings. More specifically, by drinking zero percent alcohol, consumers could discover a more effective way to improve their mental health, that does not cost them their physical health.

Despite zero percent alcohol's apparent inability to be a replacement for regular alcohol, it was not to be written off completely. Participants provided evidence that they still see value in zero percent alcohol, and as a result, the above resolutions were constructed. It is hoped that these suggestions can give some direction for social marketing efforts that address problematic drinking with zero percent alcohol. Overall, the main takeaway for this section is that zero percent alcohol can be one of several tools used to try and improve society. In an effort to accomplish this, the current section suggests several ways in which zero percent alcohol could be further facilitated, either through making it more accessible, or rebranding the image of zero percent alcohol.

#### 5.4 Limitations and Future Research

As is the case with all research, this thesis had its share of limitations. Therefore, this section addresses the methodological and contextual limitations that arose within this research, and how they were either mitigated or could be researched in the future by other interested

academics. Additional avenues for research in the future are also mentioned, with the intent of providing insight into how the field of zero percent alcohol could be further developed.

The first few limitations may be interpreted from the methodology choice. Projective techniques have been subject to critique due to their potential ambiguity (Steinman, 2009). However, this technique was chosen due to its ability to accurately depict beliefs, attitudes, and perceptions of consumers, but it must be acknowledged that it is not a synonymously accepted method. That said, the findings of the current research appeared to assure that this was an appropriate approach. This technique also served to address another limitation, this being social desirability bias. Due to the negative connotations of certain drinking behaviours, participants may have given responses that are socially desirable, rather than ones that could reflect on them negatively (Jones et al., 2015). The use of a projective technique was utilised to avoid this, due to creating an indirect connection to regular alcohol that would be less likely to elicit said social desirability bias (Haire, 1950). Beyond this, another limitation was found within the sampling method. Using a snowball sampling method may mean that the sample members are too alike to be representative of the population (Parker et al., 2020). Within the current context, this sampling method meant that all participants were from Christchurch, New Zealand. As a result, it is not clear whether there is bias within a shared culture in this one city. However, given the constructivist epistemological beliefs of the researcher, instead of generalisability, transferability is sought. This was delivered by providing thick descriptions, which provide rich information on such contents as the methodology used and findings (Anney, 2014). Provided within Chapters 3, 4, and 5 to the best of the researcher's abilities, this intended to provide an ease of transferability from the current research into another context in any future research (Lincoln & Guba, 1985).

Another avenue of future research that could be useful would be around physical experiments regarding zero percent alcohol and regular alcohol. This study collected data through interviews, using purely dialogue to explore participants' perceptions of zero percent alcohol. Due to being seen as too extensive for the purpose of this thesis, the researcher was not able to investigate how perceptions might change when actually interacting with zero percent alcohol drinks. Additionally, this was not considered appropriate based on the researcher's epistemology. In further research, this would be worth examining to see if there exists a difference between experiential and theoretical views of zero percent alcohol. The final limitation the researcher noticed was that personal influences, such as cultural background,

were not looked at for how they might have influenced response variations. The reasoning for this was due to it being a variable seen as beyond the scope of this study. Nevertheless, as there are noticeable differences in views on regular alcohol based on demographics (e.g., Chan et al., 2012; Lever & Fischer, 2018), it would be worth finding out how these might affect views towards zero percent alcohol in the future.

Outside of addressing limitations of the current study, there are additional paths that the researcher believes are also worth investigating in future research. Within the findings of this thesis, it was found that there were several similarities and differences between reduced and zero percent alcohol. Furthermore, it was also suggested that reduced alcohol was preferable to zero percent alcohol for consumers, however it was not confirmed. This suggests that it may be worth researching exactly how these categories compare in greater depth, and find which is actually more preferred, or even more effective as a social marketing tool. Other than this, another major interest related to advertising. As established earlier, there is potential for zero percent alcohol to be actively promoted as an alternative to regular alcohol.

However, there is no guarantee that it can be promoted the same way as regular alcohol, or other tools of social marketing. This future research could investigate how is the best way to advertise zero percent alcohol, for the purpose of helping as many people as possible. Beyond this and the other suggestions of future research, it is the wish of the researcher that this field of zero percent alcohol can further be developed, to better understand and help the wider population.

## 5.5 Conclusion

This thesis has recognised that zero percent alcohol was a unresearched field of literature and sought to fill this gap. Within its findings, it was discovered that zero percent alcohol is not hated, but it is not loved either. Currently, it appears that that zero percent alcohol is lacking as a product in binge drinkers' eyes, both due to physical and symbolic related issues.

Nevertheless, these issues were considered possible to attenuate based on further discussions with the same binge drinkers. Several ways to address this have been noted as part of the implications of this study. Future research also has been explored, suggesting alternatives that will build both the field of zero percent alcohol, and the possibility of developing a reliable and safe alternative to problematic drinking.

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## Appendices

### **Appendix A: Interview Guide**

#### **Beginning of interview:**

*Begin by exchanging formalities, and a general but brief conversation to help the participant settle in and adjust for the interview. This would involve greetings and asking questions such as how their day is going.*

#### **Demographic questions:**

- What is your current gender identity?
- What is your age in years?
- What is your ethnicity?
- What is your nationality?
- What is your highest educational qualification?
  - No formal qualification
  - NCEA level (specify whether level 1-3)
  - Trade qualification
  - Bachelors
  - Masters
  - PhD
  - Other (Specify)
- What is your annual salary?
  - Less than \$25,000
  - \$25,001 - \$50,000
  - \$50,001 – \$75,000
  - \$75,001 - \$100,000
  - \$100,001 – \$125,000
  - \$125,001 - \$150,000
  - \$150,001 - \$175,000
  - \$175,001 - \$200,000
  - \$200,001+

*Ethnicity, country of origin, and income bracket are deemed factors that would affect perceptions of alcohol, and thus deemed appropriate demographic questions.*

### Interview outline for participants

Okay, let us get started. Before we go into asking you anything, I'll just go over the research so that you have it front of mind, if that's okay with you?

*After confirmation, continue – else, address concerns.*

So, the research I am conducting here is on zero percent alcohol, and how people perceive it. More specifically, I wish to investigate whether people who have previously engaged in binge drinking behaviour would perceive zero percent alcohol as a suitable replacement for regular alcohol.

**Binge drinking** is defined as five or more standard drinks (or 15+ per week) for men, and four or more standard drinks (8+ per week) for women. It is described to have the potential to lead to alcohol dependence, which in turn can incur a variety of different alcohol related problems.

In this interview, I intend to explore this with you, discussing the symbolic meaning of both zero percent and regular alcohol to you, and also your beliefs and attitudes around the subject.

*Pause to break up points of emphasis, and allow interjection from participant If they so desire.*

I also want to outline zero percent alcohol. Before I do though,

[What is your understanding of what this concept means?] **[Follow up question]** (how many do you think you can drink in one session and still drive?)

*Acknowledge participant definitions, and compare to the academic definitions:*

**Zero percent alcohol** doesn't have a strict definition within the literature, but the legal definition in New Zealand is a beer, wine, or spirit that is under 1.15% ethanol by volume. Some examples of zero percent drinks are Heineken 0.0%, Stienlager Zero, Seedlip Gin, Giesen Estate 0%, and so on.

- What are your thoughts on zero percent alcohol?
  - o **[Follow up question]** What is your personal preference? How come?
- Do you think zero percent alcohol can replace drinking regular alcohol for you?
  - o **[Follow up question]** Could it on any occasion/some select occasions?

### Picture association:

Okay, now we can start the important part of the interview. I am now going to show you photos of seven different animals, and I want you to choose an animal to represent zero percent alcohol. When you've done so, we will discuss why you've chosen that animal. There are no right answers here, and you can be as creative or imaginative as you like.

*[Animal pictures are shown: Cat, Dog, Chimp, Hyena, Rhino, Turtle, Panda, and Rabbit.*

*Participant chooses one and discussion begins]*

### **Questions/Prompts:**

- Could you explain how you think this animal represents zero percent alcohol?
  - **[Prompt]** What kind of associations do you see between the two?
  - *Main question – to find out potentially unconscious/hard to articulate perception of zero percent alcohol*
- How would you describe the animal you have chosen?
  - **[Prompt]** If you had to pick some words to describe the animal, what would they be?
  - *Intending to find out what symbolic meaning the animal has to the participant*
- Is there any particular type of zero percent alcohol you are associating this animal with? How so?
  - **[Follow up question]** If you had to make a link with a specific/different type of zero percent alcohol, would your chosen animal change? Could you explain that to me?
  - *To find out if there is difference in perceptions/symbolic meaning among different types of zero percent alcohol*
- Would you use this animal to describe regular alcohol? Can you elaborate?
  - **[Follow up question]** Were you thinking of a specific type of alcohol? Would your answer change for specific/different types of alcohol?
  - **[Follow up question]** What animal would you choose to represent regular alcohol? What is your reasoning for that?
  - *Looking to find how alcohol is perceived by/its symbolic meaning for the participant for comparison*
- Could you tell me the reason you did not pick one of the other animals?
  - **[Prompt]** What characteristics do these animals possess that maybe don't fit with zero percent alcohol as well?

- *Trying to build a fuller picture of how they perceive zero percent alcohol not only through what it is to the participant, but also what it isn't*

*Moving on from association technique, ask a few direct questions in case some information has not been gathered*

**Direct interview questions:**

- Why do you think someone would drink zero percent alcohol?
  - [Follow up question] Why do you think someone would not?
  - [Follow up question] Why do you think someone would drink regular alcohol?
- Why do you think you think that way about zero percent alcohol?
- What do people get from binge drinking? What's in it for them or what is their motivation?
  - [Follow up question] Would this same thing or motivation be possible with zero percent alcohol? What makes you say that?

**Concluding:**

*Inform participant that the interview is finished, thank them for their time, and go over any final remarks and relevant information regarding getting study results, reviewing their data, etc.*



**Appendix B: Animal Images for Picture Association**

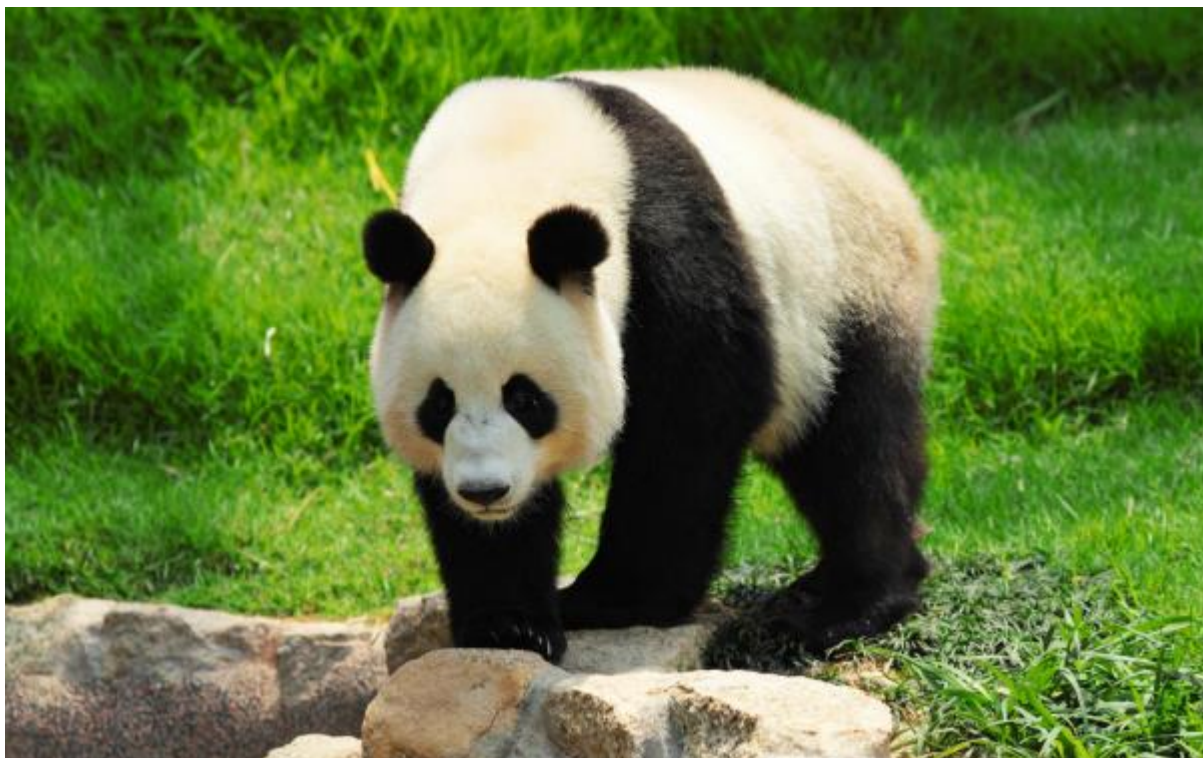












## **Appendix C: Participant Information Sheet and Consent Form**



Department of Marketing  
 Phone: 6433694602 (to contact Ann-Marie Kennedy)  
 Email: jcl157@uclive.ac.nz  
 15/09/2022  
 HREC Ref: 2022/102/LR

### **Perceptions of Zero Percent Alcohol Information Sheet for participants**

Kia ora,

You are invited to participate in a research study on zero percent alcohol beverages. This study is being conducted by Jack Clark from the University of Canterbury | Te Whare Wānanga o Waitaha (UC). Other research team members include Associate Professor Ann-Marie Kennedy and Professor Girish Prayag. The study is being carried out as a requirement for a master's thesis in Marketing.

#### **What is the purpose of this research?**

This research aims to determine current perceptions about zero percent alcohol beverages compared with alcoholic beverages. I am interested in finding out about whether zero percent alcohol beverages can become a replacement to alcoholic beverages. The information from this study will inform interventions on a potential method of addressing potentially harmful drinking practices such as binge drinking.

#### **Why have you received this invitation?**

You are invited to participate in this research because you have responded to a request for participants, or other people shared information with you about this study because they thought you may be interested in it, and you have undertaken binge drinking in the past.

Your participation is voluntary (your choice). If you decide not to participate, there are no consequences. Your decision will not affect your relationship with me, the University of Canterbury, or any member of the research team.

#### **What is involved in participating?**

If you choose to take part in this research, you will participate in an interview. This interview will take place face-to-face or online via Zoom. I will contact you to arrange a suitable time and location. The interview will involve me introducing myself, answering any questions you have, and confirming your consent to participate. Then, I will begin the interview and will ask you questions about zero percent alcohol beverages and alcoholic beverage symbolic meanings for you through an association-based projective technique and several direct questions. Binge drinking will not be the focus of our interview, however it has relevance and will be discussed briefly. I estimate the interview will take around 60 minutes.

#### **Will the interview be recorded?**

With your permission, the interview will be audio-recorded using a portable recorder. The recording will be used to create a written transcript of the interview, which I will analyse as part of the research.

### **Are there any benefits from taking part in this research?**

We do not expect any direct benefits to you personally from participating in this interview. However, the information gathered will potentially benefit others if the findings are incorporated into campaigns and interventions to reduce harmful drinking practices.

At the conclusion of the interview, I will provide you with a \$20 Westfield voucher.

### **Are there any risks involved in this research?**

Some questions or topics discussed may involve sensitive information about alcohol and its use. This may cause some participants to become upset or distressed. If you become upset or distressed you will be offered time to consider if you wish to continue or withdraw from the study. You may also wish to not answer the question which is causing you distress. I will also suggest you consider contacting the support agencies listed below:

**Mental Health Crisis phone numbers for your region:** <https://www.health.govt.nz/your-health/services-and-support/health-care-services/mental-health-services/crisis-assessment-teams>

**Alcohol and Drug Abuse services:** <https://www.health.govt.nz/your-health/services-and-support/health-care-services/help-alcohol-and-drug-problems>

#### **Support Agency**

#### **Contact Information**

Alcohol Drug Helpline

<https://alcoholdrughelp.org.nz/>

General Helpline

**Phone: 0800 787 797,  
Text: 868**

Māori Helpline – Kaupapa Māori support services

**Phone: 0800 787 798,  
Text: 8681**

Pasifika Helpline – Pacific support services

**Phone: 0800 787 799,  
Text: 8681**

Youth Helpline – Support for working through issues affecting young people

**Phone: 0800 787 984,  
Text: 8681**

Urgent Care Helplines

<https://1737.org.nz/>  
**Call or text 1737**

### **What if you change your mind during or after the study?**

You are free to withdraw at any time. To do this, please let me know either during the interview or after the interview has finished. I will remove any information you have provided up to that point from the data set if it is still possible. Once data analysis has commenced on 31st March 2023, removal of your data may not be possible.

**What will happen to the information you provide?**

I will transfer the audio recording to a password-protected file on the University of Canterbury computer network and then delete this from the recording device as soon as practical. All data will be confidential. Your signed consent form will be scanned to secure its storage on the University of Canterbury server, while the physical copy will be securely destroyed. To ensure your identity is not known to anyone outside the research team, we will keep your signed consent form in a file separate from your interview transcript. Your name will be changed to a pseudonym (a fake name) whenever it appears in the transcript and anywhere else. We will store the file that links your real name and your pseudonym individually on a password-protected, secure device.

All study data will be stored in password-protected files on the University of Canterbury's computer network.

All data will be destroyed five years after completion of the study/publication of study findings. I will be responsible for making sure that only members of the research team use your data for the purposes mentioned in this information sheet.

**Will the results of the study be published?**

The results of this research will be published in a Master's thesis. This thesis will be available to the general public through the University of Canterbury library. Results may be published in peer-reviewed, academic journals presented at an academic conference/seminar and the results of this study may be received by Health New Zealand, however, they will not have access to any information that could identify you. You will not be identifiable in any publication. A summary of results will be sent to all participants who request a copy.

**Who can you contact if you have any questions or concerns?**

If you have any questions about the research, please contact: Jack Clark: [jcl157@uclive.ac.nz](mailto:jcl157@uclive.ac.nz)

If you have any concerns about the research, please contact: Ann-Marie Kennedy: [ann-marie.kennedy@canterbury.ac.nz](mailto:ann-marie.kennedy@canterbury.ac.nz)

This study has been reviewed and approved by the University of Canterbury Human Research Ethics Committee (HREC). If you have a complaint about this research, please contact the Chair of the HREC at [human-ethics@canterbury.ac.nz](mailto:human-ethics@canterbury.ac.nz).

**What happens next?**

Please review the consent form. If you would like to participate, please sign, scan/take a photo of, and return the consent form by email, or by hand at the interview.

Thank you for your time,  
Jack Clark



Department of Marketing  
 Phone: 6433694602 (to contact Ann-Marie Kennedy)  
 Email: jcl157@uclive.ac.nz  
 15/09/2022  
 HREC Ref: 2022/102/LR

### Perceptions of Zero Percent Alcohol Consent Form for Participants

- ☐ I have been given a full explanation of this project and have had the opportunity to ask questions.
- ☐ I understand what is required of me if I agree to take part in the research.
- ☐ I understand that participation is voluntary and I may withdraw at any time without consequences. Withdrawal of participation will also include the withdrawal of any information I have provided should this remain possible.
- ☐ I understand that any information or opinions I provide will be kept confidential to the researcher. I understand that any published or reported results will not identify me.
- ☐ I understand that a thesis is a public document and will be available through the UC Library.
- ☐ I understand that all data collected for the study will be kept in locked and secure facilities and/or in password protected electronic form. I understand the data will be destroyed after five years.
- ☐ I understand the risks associated with taking part and how they will be managed.
- ☐ I agree to being audio recorded. I understand how this recording will be stored and used.
- ☐ I understand that I can contact the researcher [Jack Clark: jcl157@uclive.ac.nz] or supervisor [Ann-Marie Kennedy: ann-marie.kennedy@canterbury.ac.nz] for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Human Research Ethics Committee, Private Bag 4800, Christchurch (email: [human-ethics@canterbury.ac.nz](mailto:human-ethics@canterbury.ac.nz)).
- ☐ I would like a summary of the results of the project.
- ☐ By signing below, I agree to participate in this research project.

Name: \_\_\_\_\_ Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Email address (for report of findings, if applicable): \_\_\_\_\_

If you would like to participate, please sign, scan/take a photo of, and return the consent form by email, or by handing it in at the interview.