THE MARKETING OF SUGAR-SWEETENED BEVERAGES TO YOUNG PEOPLE ON SOCIAL MEDIA

A thesis submitted in partial fulfilment of the
HONOURS DEGREE OF BACHELOR OF HEALTH SCIENCES

In
The School of Public Health
Faculty of Health Sciences
The University of Adelaide

By
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November 2015
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I give consent to this copy of my thesis, when deposited in the University Library, being available for loan and photocopying.

Aimee Lee Brownbill
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Abstract

Sugar sweetened beverage (SSB) consumption is high in Australia, particularly among adolescents and young adults. The need to reduce added sugars in the diet, with SSBs a notable contributor, is attracting increased attention from health agencies interested in curbing obesity and associated non-communicable diseases. While the marketing of unhealthy food and beverage products to children has been a focus of research and policy interest, little attention has been focused on the marketing of such products to adolescents and young adults. The increased usage and importance of social media for young people, paired with the unique opportunity provided by social media platforms for the continuous monitoring and facilitation of social interactions, consumer engagement, and peer-to-peer relationships, makes young people vulnerable to highly personalised and targeted digital marketing campaigns by the food and beverage industry.

This study investigates the ways in which SSBs are marketed to people aged 13-25 years old on Facebook through a content analysis of the top SSB Facebook pages ranked by Australian followers. Using a social constructionist paradigm, descriptive and thematic analysis was conducted on all official company posts made to these pages during the 6 month period of 1 January to 30 June 2015.

Results found that SSB brands share highly engaging content on Facebook which seamlessly integrates their content into the lives of young people today. Further to this, brands align their products with common sociocultural values and practices such as masculinity, femininity, friendship, and leisure, which are regarded as important by young people today. In doing so, they portray their products as having a normal place within the everyday lives of young people.

This study contributes to the evidence base which shows young people are specifically targeted in the marketing of SSBs. Further to this, it adds to current literature by drawing attention to social media as a relatively new medium through which SSBs can uniquely target young people in their marketing. The findings of this research can help inform future public health policy and interventions regarding the marketing of SSBs to young people.
Acknowledgements

I would like to begin by thanking my two supervisors, Professor Annette Braunack-Mayer and Associate Professor Caroline Miller, for their immense support over this past year and for continuing to show confidence in me and my work.

Thank you to the University of Adelaide for providing me with the University of Adelaide Honours Scholarship which was tremendously useful and which I greatly appreciate. I would also like to thank the Population Health Research Group at the South Australian Health and Medical Research Institute (SAHMRI) who financially assisted me in presenting my work at the Australian New Zealand Obesity Society 2015 Annual Scientific Meeting and who have provided me with the resources required to undertake my project within their team.

I would further like to thank the amazing Population Health Research Group at SAHMRI, with whom I have spent this past year working. I am forever grateful for the continual support and encouragement that you have all shown me since taking me on board as an intern. In particular I would like to thank Joanna Dono, who always spared her time to help wherever needed and who spent many conversations discussing my research ideas over this past year, and Dr Kerry Ettridge, under whose kind and nurturing supervision as an intern I felt encouraged to undertake an honours research project. I have truly enjoyed the time I have spent within your team, you have all made this a special and particularly rewarding experience for me.

Thank you to all of the staff in the School of Public Health at the University of Adelaide who have supported and taught me throughout my entire university degree. It is under your tutorage that I discovered public health, a field in which I now feel passionate to pursue a career in. I would also like to acknowledge and thank the university’s research librarian Maureen Bell who gave me guidance and highly useful advice when undertaking my literature review.

Finally, it is important that I thank my friends and family who have always supported me no matter how big or seemingly crazy my ideas, passions, and ambitions have been. It is your endless support and praise for my success that has, and will continue to, motivate and encourage me throughout my journey.

Aimee Lee Brownbill
Chapter 1: Introduction

Introduction

The consumption of sugar-sweetened beverages (SSBs) has been increasing over time. Australian research has highlighted the increasing trend of SSBs consumption within Australian children\(^1\) and the contribution of SSBs to the increasing amount of total energy intake in children’s diets.\(^2\) International studies conducted in the United States and Great Britain have also highlighted the increasing consumption of SSBs\(^3,4\) with young people between the ages of 12 and 19 showing the largest consumption of these beverages.\(^5-7\)

With the rising levels of obesity worldwide and the negative health impacts associated with overweight and obesity,\(^8\) much research has been conducted into potential factors contributing to the obesity epidemic. Research has indicated an association between an increased intake of SSBs (and concomitant energy intake) and an increase in weight gain/obesity both in adults and children.\(^9-14\) Regular consumption of SSBs has also been associated as a risk factor in the development of non-communicable diseases such as Type II Diabetes\(^11, 15\) and cardiovascular disease.\(^16\) The overall cost of obesity (not including overweight) within Australia during 2008 was an estimated $58.2 billion.\(^17\) In 2010, non-communicable diseases caused approximately 85% of the total burden of disease within Australia\(^18\) with cardiovascular diseases costing $7.9 billion during 2009-2010.\(^19\)

Understanding the influences on SSB consumption is important as this can aid the identification of opportunities to moderate or reduce calorie intake. While individual factors such as younger age, lower education, and lower socio-economic status (SES) are associated with higher SSBs intake, environmental factors such as availability in the workplace and household are also known to influence consumption.\(^20, 21\) As marketing is a key influencer of consumer behavior,\(^22\) this study will focus on the marketing of SSBs as an environmental factor likely to influence consumption. As there is a large amount of previous literature on children and unhealthy food/beverage marketing, it will focus on how SSBs are marketed to young people aged 13-25 years old, the highest consumers of SSBs.
Chapter outline

This chapter (Chapter 1) provides an introduction to the thesis and an overview of the structure of the remaining chapters.

In Chapter 2 I present a literature review which provides an overview of the existing literature on the marketing of SSBs to young people. In this review, I include literature from health oriented journals as well as marketing journals in order to provide a broad perspective of the marketing techniques used. I then discuss the rationale for why this research was undertaken and outline the scope of this study. I conclude the chapter by stating the research aim and question.

In Chapter 3, I describe the research methodology employed in this study. This includes a description of the methodological approach and the paradigm under which I have conducted this research and provides details of the particular methods used.

Chapter 4 presents the results of the study. I discuss descriptive results and the marketing practices identified in the quantitative data collected using a coding framework. I then present the themes which were constructed from the qualitative data.

In Chapter 5 I analyse these themes from a social constructionist perspective. I incorporate theory and previous literature to support my discussion.

Chapter 6 concludes the thesis through summarising my main findings, the relevance and implications of this research, and identifying where further research is needed.
Chapter 2: Literature Review

Literature review outline

The aim of this literature review is to identify and discuss recent research which explores the marketing of SSBs to young people aged 13 to 25 years old.

The literature review is constructed in three Streams:

Stream 1: Marketing SSBs to young people.

Stream 2: Marketing techniques used in social media.

Stream 3: Marketing SSBs on social media.

Stream 1 involved a structured review of the literature focused specifically on the marketing of SSBs to young people. Stream 1 provided focus for Streams 2 and 3 by identifying where further research appeared to be needed. The Streams are further summarised in Figure 1. The results for each Stream begin by concisely introducing how articles were identified for inclusion. The main findings are then identified, noting specifically those which are most relevant to SSBs and, where available, young people. Each Stream will end with a short research gap analysis to provide focus for my research project. A table summarises the articles in each Stream including a quality rating of each article according to the appropriate critical appraisal tool. Finally, the review concludes with a summary of the findings which lead to the development of a research question presented in Chapter 3.
Marketing SSBs to young people.

**Search Technique**
Structured search of the literature
Databases: PubMed and Scopus (health journals).

**Young people and SSB marketing**
Young people are exposed to a large amount of SSB marketing which influences consumption of these beverages.

**Predominant techniques identified**
Targeted, branding, nutrition and benefit claims, and sponsorship.

**Other relevant findings**
Both traditional and newer forms of media are used for marketing and there are misleading perceptions surrounding modern SSBs as healthier alternatives to traditional soft drinks.

**Gap analysis**
This research shows that social media is becoming a large source of marketing to young people and that this is under researched.

Marketing techniques used in social media.

**Search Technique**
Scoping and backwards/forwards searching of the literature
Database: Emerald (marketing journals).

**Young people and social media**
Social media is integrated into the daily lives of young people, making them a prime target for marketing through this medium.

**Predominant techniques identified**
Highly personalised and targeted, engagement, user-generated content, peer-to-peer networking, entertainment and immersive environments.

**Other relevant findings**
The food and beverage industry have invested heavily, and often lead the way, in social media marketing.

**Gap analysis**
This research shows that social media is a prime medium for targeting young people and marketing of SSBs through

Marketing of SSBs on social media

**Search Technique**
Identified during searching the literature for Stream 1 and Stream 2.
Database: not specific.

**Young people and SSBs on social media**
Young people make up the majority of followers on SSB social media accounts and techniques often specifically target adolescents.

**Predominant techniques identified**
Branding, multi-media, engagement, user-generated content, competitions, and product associations.

**Other relevant findings**
Despite self-regulatory codes, the food and beverage industry still advertise to children through social media and to adolescents who are not encapsulated in these codes.

**Gap analysis**
Despite these two studies, no identified studies specifically look at SSB marketing towards young people on social media.
Stream 1: Marketing SSBs to young people

Stream 1 of this literature review aimed to identify recent research into the ways in which SSBs are marketed to young people (aged 13-25 years) and to identify where research is needed. A structured search was conducted using PubMed and Scopus with search terms relevant to ‘sugar-sweetened beverages’, ‘marketing’, and ‘young people’ (see Appendix A and Appendix B for detailed logic grids). After duplicates were removed and exclusion criteria were applied to the remaining 110 articles, 13 articles remained for inclusion (see Appendix C for exclusion criteria). An additional article was identified through the reference list of an included study, resulting in a total of 14 articles within Stream 1 (see Appendix C for search yield summary). The majority of included articles were classified as either high or medium quality research articles using a variety of research methodologies (Table 1). Content focusing on the marketing of SSBs was analysed and common themes are discussed below with a summary of included studies illustrated in Table 1.

Young people are exposed to a large amount of SSB marketing which may influence consumption behaviours.

A survey by Kumar et al\(^2\) of adolescents aged 12-17 years revealed that 42-54% of participants recalled seeing and/or hearing advertisements for SSBs at least daily. There was disproportionate representation by SES, with a higher proportion of lower SES groups recalling SSB advertisements compared to those from higher SES groups.\(^2\) Probart et al\(^2\) found a large presence of soft drink manufacturer owned vending machines within American schools which exposed students in grades 9 through 12 to SSB advertising. Similarly, soft drink advertisements were also found to vary by SES with more advertisements occurring in the lowest SES schools than in highest SES schools.\(^2\)

In a qualitative study of the determinants of soft drink consumption in young adults aged 18 to 30 years, Hattersley et al\(^2\) found that heavy marketing of soft drinks in environments frequently visited by young people can significantly influence their consumption behaviour. Similarly, a study by Koordeman et al\(^2\) with young women aged 18 to 29 years living within the Netherlands showed that women were more likely to consume soft drinks when they were exposed to television advertisements containing soft drinks than when exposed to water advertisements.
The marketing of SSBs is highly targeted at young people through both old and new forms of media.

In a content analysis of food and beverage advertisement and brand appearances during prime television viewing hours, Speers et al\textsuperscript{28} identified that soft drinks, energy drinks, and sports drinks contributed significantly to the total amount of advertisements viewed by young people aged 12 to 17 years in the US. The appearance of SSB brands within television shows was 4 to 7 times higher than traditional television advertisement of soft drinks.\textsuperscript{28} Although these results were mostly in response to the appearance of Coca-Cola during the program American Idol, this program is known for having a large adolescent/young adult audience.\textsuperscript{28} Pomeranz et al\textsuperscript{29} also found that adolescents within the US viewed approximately one television advertisement of energy drinks every three days predominantly though youth-targeted channels (9-16\% more than for adults). Similarly, Emond et al\textsuperscript{30} found that energy drink manufacturers predominantly advertise their products on channels with a base audience of adolescents, in particular channels which are music, sports, and male lifestyle related.

Although the 2012 study by Kumar et al\textsuperscript{23} indicated that adolescents 12 to 17 years of age most commonly recalled SSB advertisements which appeared on television, media such as internet/mobile phone advertising and advertising within schools were also recalled. Costa et al\textsuperscript{31} also reported that adolescents 12 to 15 years of age recalled advertising of energy drinks on media other than television such as advertising via the internet, food/game stores, video games, and sports sponsorships. Harris et al\textsuperscript{32} found that the exposure of adolescents to SSB advertisements on television decreased by 30\% during the period of 2010 to 2013 while SSB brands appearing on social media websites exponentially increased during the period of 2011 to 2014.

Several techniques are commonly used in the marketing of SSBs to young people.

Branding

In a qualitative study with young people (16 to 21 years) Bunting et al\textsuperscript{33} reported that brand loyalty largely influenced their purchasing behaviour of energy drinks. This study suggested that purchasing behaviour of such beverages may be influenced by sub-conscious cognitive decisions associated with beverage branding.\textsuperscript{33} An experimental study by Burger & Stice\textsuperscript{34}
found that non-habitual drinkers of Coca-Cola had higher oral somatosensory and brain reward pathway responses to advertisements which displayed a Coca-Cola beverage whereas habitual drinkers had higher responses to advertisements which displayed only the Coca-Cola branded logo. The authors of this study infer that logo branding plays a role in influencing SSB consumption in regular SSB consumers.34

Claims on the effects/benefits of SSB consumption and nutrition related messages

Harris et al32 found that 9 out of 10 SSB packages contained ‘nutrition-related messages’. These included the promotion of specific ingredients such as vitamins, antioxidants, and electrolytes, as well as statements of ‘natural’ or ‘real’ ingredients.32 A review by Reissig et al35 on energy drinks reported similar marketing techniques with energy drinks marketed as having particular stimulant effects and claims of benefits associated with consumption such as providing rapid energy and aiding weight loss.

Some of the articles identified also explored consumer perceptions of SSBs with results from these studies appearing to align with this marketing technique. In a study by Costa et al31 participants aged 12 to 15 years reported consuming energy drinks when they were feeling tired and during or after sport. Participants expressed the perception that energy drinks would provide stimulant effects and the belief that such beverages provide a quick fix to their problem of tiredness.31 Bunting et al33 similarly reported that participants aged 16 to 21 years discussed consuming energy drinks for a ‘kick’ or ‘hit’. In contrast, older participants were more aware of the marketing techniques used by energy drink companies.33 This theme appears to apply to other SSBs, with Hattersley et al26 reporting the perception among males that sports drinks are a required source of energy and a performance aid during exercise.

Sponsorship

A study of SSBs within American secondary schools (grades 8 through to 12) found the most common form of soft drink advertising was through sponsorship of school events.25 Similarly, a review on energy drinks29 highlights the sponsorship of extreme sports by energy drink manufacturers. As discussed by Reissig et al,35 the marketing of energy drinks is targeted at young males through the use of particular brand names and imagery identifying with ‘masculinity’ and risky behaviours. The sponsorship of events such as extreme sports may
therefore further reinforce this brand association within this target group. Costa et al\textsuperscript{31} found that young participants (aged 12 to 15 years) recalled advertising of energy drinks through sports sponsorships and many reported receiving free energy drinks through promotional vans or groups at events sponsored by energy drink companies. Further to this, Harris et al\textsuperscript{32} found that SSB companies such as Coca-Cola and Red Bull have expanded their marketing online through creating social media accounts for music, sports, and arts activities which they sponsor.

There are misleading perceptions surrounding modern SSBs as healthier alternatives to traditional soft drinks.

During the period of 2010 to 2013, soft drink sales declined while the sales of SSBs excluding soft drinks (for example sports drinks, energy drinks, and flavoured water) increased.\textsuperscript{32} Adachi-Mejia et al\textsuperscript{36} also reported these trends in their cross-sectional observational study of vending machines within US schools teaching grades 9 through 12. They observed that soft drinks were rarely sold in these schools with only 3 out of 113 vending machines selling soft drinks; however, other SSBs such as flavoured water were commonly sold, suggesting that there may be misconceptions about the healthiness of certain SSBs.\textsuperscript{36} In further support of this, Hattersley et al\textsuperscript{26} also found that, while 18 to 30 year olds reported being aware of the health consequences associated with regular consumption of SSBs, female participants commonly portrayed the belief that they were ‘health-conscious’ in their decision to choose fruit juice over other SSBs, suggesting that they may not perceive fruit juice to be a SSB.

Research gap analysis

Stream 1 of this literature review has shown that young people are exposed to substantial SSB marketing. It has identified a range of traditional techniques used to market SSBs to young people and provided some evidence for how this may influence consumption behaviour, highlighting the importance of research that focuses on this age group. The literature predominantly focused on soft drinks and energy drinks, while some studies drew attention to the misleading perceptions around modern SSBs such as sports drinks. Future research should therefore also include how these modern beverages are marketed. Further to this, despite noting that SSBs are increasingly utilising newer media such as social media to market their products, the literature focused on exploring marketing through traditional
media with no studies looking at SSB marketing on social media in detail. As SSB manufacturers appear to be increasing their investment in social media and research in this area is limited, this research project will focus on social media as tool to market SSBs.
Table 1. Summary of studies included in Stream 1

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Country</th>
<th>Title</th>
<th>Study design</th>
<th>Main findings</th>
<th>Quality*</th>
</tr>
</thead>
</table>
| Emond J, Sargent J,       | 2015 | United States.| Pattern of energy drink advertising over US television networks.      | Secondary analysis of energy drink advertising from US network and cable television channels collected from an advertising monitoring company. Targeted audience base of selected advertisements were 12-17 year olds. | - Common channels which aired a large proportion of the energy drink advertisements were music, sports, and male lifestyle related.  
- Energy drink manufacturers mostly advertised on channels of which the base audience are adolescents.                                                                                 | Medium   |
| Gilbert-Diamond D.        |      |               |                                                                      |                                                                               |                                                                                                                                                                                                            |          |
| Costa B, Hayley A, Miller P. | 2014 | Australia.    | Young adolescents’ perceptions, patterns, and contexts of energy drink use. A focus group study. | A qualitative study using focus groups with semi-structured questions focusing on energy drink consumption and perceptions. Male and female participants (N=40) aged 12-15 years old. | - It was common that participants were given free energy drinks through promotional vans/groups at sponsored events and were motivated to drink these because they were free.  
- A range of advertising was recalled including television, internet, food and game stores, video games, and sports sponsorships.                                | High     |
| Burger K, Stice E.        | 2014 | United States.| Neural responsivity during soft drink intake, anticipation, and advertisement exposure in habitually consuming youth. | Experimental non-randomized, non-blinded study. Male and female participants (N=27) aged 15-16 years old, 13 Coca-Cola consumers (who drank >5 glasses of Coca-Cola per week) and 12 non-soft drink consumers (who drank <2 SSB a month), 2 neither of the above. | - Being exposed to Coca-Cola advertisements resulted in the activation of oral somatosensory and brain reward pathways.  
- There was a higher response to advertisements which displayed only the logo in habitual drinkers, suggesting that the logo is a conditional cue for consumption. | Medium   |
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<tr>
<th>Author</th>
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<th>Title</th>
<th>Study design</th>
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<tbody>
<tr>
<td>Harris J, Schwartz M, LoDolce M, Munsell C, Fleming-Milici F, Elsey J, Liu S, Hyary M, Gross R, Hazen C, Dembek C.</td>
<td>2014</td>
<td>United States.</td>
<td>Sugary drink FACTS 2014: Some progress but much room for improvement in marketing to youth.</td>
<td>Analysis, report, review of Publicly available data, company websites, business monitoring, and visits to retail establishments and calls to beverage company consumer helplines.</td>
<td>- Although soft drink sales appear to have declined over the past few years (2010-2013), other SSB have increased in sales for example sports drinks, energy drinks, and flavoured water. - Most (9 out of 10) SSB packages contained nutrition-related messages. - Soda and energy drinks are increasingly using social media marketing to advertise their products.</td>
<td>Medium</td>
</tr>
<tr>
<td>Kumar G, Onufrak S, Zytnick D, Kingsley B, Park S.</td>
<td>2014</td>
<td>United States.</td>
<td>Self-reported advertising exposure to sugar-sweetened beverages among US youth.</td>
<td>Descriptive study using Porter Novelli’s 2012 Summer Consumer Styles and Youth Styles surveys. Survey results were obtained by male and female participants between the ages of 12 and 17 years (N=847).</td>
<td>- Approximately 42-54% of adolescents recalled seeing and/or hearing SSB advertisements at least once daily. - The frequency of adolescents being exposed to SSB advertising differed by socio-economic characteristics.</td>
<td>Medium</td>
</tr>
<tr>
<td>Adachi-Mejia A, Longacre M, Skaturd-Mickelson M, Li Z, Purvis L, Titus L, Beach M, Dalton M.</td>
<td>2013</td>
<td>United States.</td>
<td>Variation in access to sugar-sweetened beverages in vending machines across rural, town and urban high schools.</td>
<td>Cross-sectional observational study looking at vending machine content in schools. Schools included in this study (N=26) were limited to those which included grades 9 to 12.</td>
<td>- The most common beverages found were flavoured water (34.8%), SSB (not inclusive of flavoured waters; 23.6%) and plain water (21.8%). - Only 3 vending machines (from 113 identified in study) had soda.</td>
<td>High</td>
</tr>
<tr>
<td>Author</td>
<td>Year</td>
<td>Country</td>
<td>Title</td>
<td>Study design</td>
<td>Main findings</td>
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| Bunting h, Baggett A, Grigor, J. | 2013 | New Zealand.     | Adolescent and young adult perceptions of caffeinated energy drinks. A qualitative approach. | Qualitative study using 6 focus groups (N=36). Participants were males and females aged between 16 and 35 years old and consumed energy drinks at least twice per month. The two key questions posed were regarding the factors which influenced purchasing energy drinks, and perceptions on caffeine levels within these drinks. | - Those 16-21 associated energy drinks with having a social function more so than considering efficacy of functionality of these drinks; suggesting they are more influenced by marketing.  
- Brand loyalty was discussed by all participants as influencing purchasing behaviour.                                                                 | High     |
| Pomeranz J, Munsell C, Harris J. | 2013 | United States.   | Energy drinks: An emerging public health hazard for youth            | A review (non-systematic) of previous research on the health effects, labelling, and marketing of energy drinks to adolescents. | - Adolescents during 2010 viewed one television advertisement of energy drinks every three days mostly through youth-targeted networks.  
- Energy drink manufacturers sponsor extreme sports.                                                                                                                                               | Medium   |
| Speers S, Harris J, Schwartz M. | 2011 | United States.   | Child and adolescent exposure to food and beverage appearances during prime-time television programming. | Content analysis on food and beverage advertisements and brand appearances during prime-time viewing on television purchased from a media monitoring company. Data used to determine advertisements viewed by children (2-11 years), adolescents (12-17 years), and adults (18-49 years). | - Soft drink, energy/sports drinks made a large proportion of promotional appearances.  
- All age groups viewed between 4-7 times as many brand appearances than traditional television advertisements of soft drinks. A large proportion of these were made up of Coca-Cola appearances on the program American Idol. | Medium   |
<table>
<thead>
<tr>
<th>Author</th>
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<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Koordeman R, Anschutz D, Baaren R, Engels R</td>
<td>2010</td>
<td>Netherlands</td>
<td>Exposure to soda commercials affects sugar-sweetened soda consumption in young women. An observational experimental study.</td>
<td>Randomised between-subject experimental design. Female participants (N=51) attending college and aged between 18 and 29 years old.</td>
<td>- Young women were more likely to consume soft-drink when exposed to soft-drink television commercials then when exposed to water commercials.</td>
<td>Low</td>
</tr>
</tbody>
</table>
| Hattersley L, Irwin M, King L, Allam-Farinelli M | 2009 | Australia | Determinants and patterns of soft drink consumption in young adults: a qualitative analysis | A qualitative study with 8 semi-structured focus groups. Male and female participants aged between 18 and 30 years old enrolled at the University of Sydney (N=35). Key topics around soft-drinks: beverage consumption patterns, beverage knowledge/awareness/attitudes, scope for change and self-efficacy/barriers and facilitators of change. | - The consumption of soft drinks are largely influenced by advertising and promotion within the settings frequently visited by young adults aged 18-30 years.  
- Females were more influenced by the marketing of ‘healthier’ beverages.  
- Male participants perceived sports drinks as a source of ‘energy’ and as a performance aid during and after exercise. | High    |
| Reissig C, Strain E, Griffiths R            | 2009 | N/A       | Caffeinated energy drinks- A growing problem.                         | A review (non-systematic).                                                    | - Energy drinks are promoted for their stimulant effects and claim benefits such as increased attention, endurance and performance, and weight loss.  
- Advertising of energy drinks is highly targeted at young males through brand names and images which identify with ‘masculinity’ and risky behaviours. | Medium  |
<table>
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<th>Author</th>
<th>Year</th>
<th>Country</th>
<th>Title</th>
<th>Study design</th>
<th>Main findings</th>
<th>Quality</th>
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</table>
| Johnston L, Delva J, O’Malley P. | 2007 | United States.| Soft drink availability, contracts, and revenues in American secondary schools. | Data from the YES study and Monitoring the Future study were used. Male and female participants (N=37,543) were from grades 8 to 12. | - 21% of high school students attend a school that display soft drink advertisements in school. Of these, there is a higher amount in schools from areas of the lowest socio-economic status (29%) in comparison to highest socio-economic status (13%).  
- Sponsorship of school events is the most common means by which soft drinks are promoted within schools (23% high school, 15% middle school). | Medium |
| Probart C, McDonnell E, Bailey-Davis L, Weirich E. | 2006 | Unites States.| Existence and predictors of soft drink advertisements in Pennsylvania high schools. | Survey data obtained by school foodservice director survey. Random selection of 50% of public high schools teaching grades 9 to 12 in Pennsylvania (271) of which 228 surveys were collected for analysis. | - A large amount of schools (94%) reported vending machines on campus with 63.4% reporting soft drink machines owned by soft drink manufacturers.  
- Soft drink advertisements were mostly located on vending machines. | Medium |

*Quality ratings were in accordance with the framework outlined by CASP for qualitative studies and reviews and by Glynn for quantitative studies. Studies were classified as high quality if they were rated above 75%, medium if they rated between 50% and 75% (inclusive), and low if they were rated below 50% (Appendix D: Stream 1).
Stream 2: Marketing techniques used in social media

As identified in Stream 1, newer forms of media such as social media are increasingly being used to market SSBs. In response to these findings, the Emerald database was selected to identify market based research articles that discussed the marketing techniques used by SSB manufacturers on social media. The limitation of using this database was that it did not allow for the highly structured and sophisticated search strategies used in Stream 1. Because of this, a scoping search of the literature was conducted using search terms relevant to ‘sugar-sweetened beverage’, ‘social media’, ‘marketing’ and ‘young people’ along with backwards/forwards searching in order to identify relevant articles. This search yielded 15 relevant articles with only two articles focused on the marketing of food and beverages on social media. These two articles are discussed separately in Stream 3 of this literature review. Stream 2 therefore consisted of 13 articles and aimed to identify recent research which explored the marketing techniques used on social media and, where available, specific techniques used to market to young people. The articles varied in quality, with noticeably more articles of low quality than in Stream 1. This may be due to different requirements for articles submitted to marketing journals compared to health journals. Despite differences in quality ratings, the articles included in Stream 2 provide a different and complementary perspective on the topic, namely a marketing perspective rather than a health research perspective. Content from the 13 articles focusing on the specific marketing techniques used on social media were analysed. I discuss the common themes below. Table 2 summarises the studies included.

Social media is integrated into the daily lives of young people making them a prime target of marketing through this medium.

Most young Australians access the internet regularly and consider it an important element of everyday life. Many children aged 8 years and above access the internet and usage increases with age. One of the most predominant forms of internet usage is social networking websites (SNS), with an approximated 92% of Australian adolescents (aged 16 to 17 years) using SNS. Access to SNS and frequency of access increase with age from 36% of 12 to 13 year olds to 71% of 16 to 17 year olds accessing SNS daily. While a range of SNS are accessed by young Australians, the most popular among young people 12 to 17 years of age is Facebook with the majority of young people accessing Facebook at least daily, if not...
several times daily.40 Similar trends have been identified internationally, with Chu & Kim41 reporting an average frequency of accessing SNS among US college students of 5 times daily with an average of 1.7 hours of use per day. Although participants within this study ranged from 18 to 46 years of age, the mean age of participants was 21.41

A range of industries are incorporating social media into their marketing strategy to target young people.42 The food and beverage industry is playing a leading role in conducting and implementing market research on social media.43 A qualitative study by Tsimonis & Dimitriadis44 with marketing managers from a range of industries, including the food and beverage industry, indicated that the most popular reasons for a brand to use social media was in response to the growth and popularity of social media and the viral nature of social media which allowed for a brand’s message and name to become quickly known.

Social media allows for marketing techniques to be uniquely implemented in a way not possible through traditional marketing media.

Personalised and highly targeted

Young people use social media in a highly personalised way which can be tracked and used by marketers to personalise their marketing strategies targeting specific wants, needs, and behaviours.42 Marketing managers in the study by Tsimonis & Dimitriadis44 discussed the use of tools available on social media platforms which allow them to access the demographics of their followers to gain targeted access to new audiences. Lipsman et al46 illustrate the way in which such demographics have influenced the social media strategy of companies to create highly targeted marketing strategies. In this study, it was found that the demographic profile of people following the coffee company Starbucks on Facebook differed from the demographic profile of in-store customers, with Facebook followers being younger than in-store customers.46 Social media was therefore suggested as a useful tool for specifically marketing to the younger audience of Facebook followers.46

Brands use a variety of data collection methods on social media, some of which are active (require users to actively provide private information such as phone numbers through means such as competitions) whereas others are passive (occurring without the users’ knowledge through collecting data such as cookies and IP addresses).47 While young people may be aware that active data collection methods provide a way for companies to market to
them in the future, they may be unaware of passive data collection methods. In a study by Barcelos & Rossi,48 Brazilian adolescents expressed that, although they like to be able to access the private information of others through social media, they often do not want their own private information to be accessible by others through social media.

Engagement

While traditional marketing is largely passive, marketing via social media allows and encourages engagement between brands and consumers.42 This aligns with the usage patterns of young people who have adopted social media as a tool for engagement.42 Brand marketing managers actively seek to foster ongoing engagement with young people as a means of developing subconscious links between their brand’s messaging and the daily associations which are personally relevant to the lives of their consumers.42 Marketing managers who were responsible for their company’s social media activity reported, in Tsimonis & Dimitriadis’ study,44 that the most important benefit from using social media was engagement with their followers. They expected that the sense of engagement between followers and the brand would increase brand loyalty, sales, encourage new customers and help them understand the needs of their consumers.44 All managers within this study stated that competitions with prizes as well as communicating on a daily basis with their followers, even with messages as simple as wishing them a good week, were the most common and important engagement activities for them on social media.44 This is reiterated in other findings46 which suggest that highly engaging content and regular posting on social media is an important marketing strategy on social media as it increases the amount of content which appears in brand followers’ newsfeeds.

User-generated content

The sharing of any materials such as comments or videos on social media websites by non-media professionals is known as user-generated content (UGC) and has become an increasingly utilised feature of social media.42 Companies realise the potential of (UGC) in their marketing strategy and research has begun to indicate the ways in which UGC can complement the use of brand-generated content (BGC) in a brand’s social media marketing strategy.49 A study by Bruhn et al49 indicates that, while BGC on social media positively influences brand awareness and functional brand image (related to the usefulness of a
product), it does not influence hedonic brand image (related to multisensory and emotional associations with a product). On the other hand, UGC influences hedonic brand image although not functional brand image or brand awareness.49 Further to this, the results indicated that all three of these factors (brand awareness, functional brand image, and hedonic brand image) positively influence brand attitude and purchase intention.49 Similarly, in a study by Schivinski & Dabrowski,50 BGC on non-alcoholic beverage Facebook pages was shown to influence brand awareness and associations, but not brand loyalty, while UGC on these pages was shown to influence brand loyalty.

Christodoulides et al51 found that consumer involvement with UGC also positively impacted brand perception and that user engagement with UGC was more likely when brands gave users the tools to creatively identify and express themselves. This technique particularly resonates with the way in which young people use social media, as discussed by Barcelos & Rossi48 who found young people use social media as a way to promote self-expression and for social identity construction. A particular technique which falls under the broad category of UGC and allows people to do this is co-creation.51 The use of co-creation along with its perceived value was shown by Brodie et al52 to influence consumer loyalty, satisfaction, empowerment, connection, emotional bonding, trust, and commitment.

Peer-to-peer networking

While marketing through traditional media uses a one-to-many approach, social media easily allows for a many-to-many approach and allows marketers to develop insight into the nature of social relationships and tailor their strategies to promote their brands accordingly.42 Brand marketing managers suggest that, apart from financial benefits such as prizes, their followers benefit from engaging with their brand’s social media page through social interactions with other users.44 This aligns with how young people reportedly use social media as highlighted in the study by Barcelos & Rossi48 in which adolescents expressed that social media was a way for them to be closer to others, and their choice of social media is heavily influenced by their friends’ use of social media. Other findings support this, with consumers expressing that they often engage with social media to socialise.52 Peer-to-peer networking on social media is important to brands as their marketing not only reaches their fans but also many of their fans’ online friends, regardless of those friends direct
engagement with the brand’s online content. Brands therefore often use techniques which encourage their younger users to spread the message of their brand to their online friends and, in doing so, endorse the brand throughout social networks.

Entertainment and immersive online environments

The use of high quality multi-media creates an immersive and highly entertaining environment which is particularly appealing to young people and in which brand messaging can seamlessly be integrated with entertainment in the daily lives of these young people. Through these entertaining and interactive environments, brands can now create relationships with their users which were not possible through traditional marketing media. Adolescents in the study by Barcelos & Rossi highlighted entertainment as one of the leading factors which influenced choice of social media. Conversely, Hutter et al showed that annoyance by consumers on Facebook negatively impacts user engagement with brand pages as well as having a negative impact on word of mouth. Further to this, brand marketing managers have also suggested that a common technique used on social media is to provide entertaining content as well as providing followers with advice or useful information/content as a means of portraying their brand’s messaging in a way which can avoid annoyance in their followers.

Gap analysis

Stream 2 of this literature review has identified a range of techniques which are specific to marketing on social media and the ways in which some of these techniques target, and/or resonate with young people. While there was a large amount of research discussing the broad marketing techniques used on social media, some of which discussed these techniques in the context of young people, specific research identifying the marketing of sugar-sweetened beverages on social media is limited.
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<tr>
<th>Author</th>
<th>Year</th>
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<th>Title</th>
<th>Study design</th>
<th>Main findings</th>
<th>Quality*</th>
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| Schivinski B, Dabrowski D. | 2015 | Poland. | The impact of brand communication on brand equity through Facebook. | A standardized online survey of Polish male and female participants (n=302) aged 15-46 years regarding 60 brands on Facebook from non-alcoholic beverages, clothing, and mobile network provider industries. | ▪ Analysis of the non-alcoholic industry showed UGC to significantly influence brand loyalty and posts by brand administrators to influence brand awareness/associations.  
▪ Brand awareness/associations significantly influence perceived quality.  
▪ Consumers continuously differentiate between firm created and user created content and rely heavily on the opinions of people they know/other social media users regarding products. | Low      |
| Barcelos RH, Rossi CAV.  | 2014 | Brazil. | Paradoxes and strategies of social media consumption among adolescents. | Exploratory design with focus groups (n=30) and interviews (n=20) with Brazilian adolescents aged between 13 and 17 years. | ▪ Positive outcomes of social media consumption: aids face-to-face communication, bring young people “closer” to acquaintances, facilitates the maintenance and growth of personal relationships and promotes self-expression and social identity construction.  
▪ Negative outcome: risk of personal content published online.  
▪ The use of social media platforms by friends and the level of entertainment provided was the most dominant factors which influenced social media use by participants. | High     |
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<th>Title</th>
<th>Study design</th>
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<tr>
<td>Tsimonis G, Dimitriadis S.44</td>
<td>2014</td>
<td>Greece</td>
<td>Brand strategies in social media.</td>
<td>A qualitative study using 14 interviews with marketing managers within Greece from a range of industries including the food and beverage industry who are responsible for their company’s social media activity. Questions related to the company’s use of social media, the reasons and expectations of using social media, and customer usage and benefits of their brands fan page.</td>
<td>▪ Brands used social media because of growth and popularity, viral nature and ability to make the brands message and name quickly known on social media.</td>
<td>High</td>
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<td>Brodie RJ, Ilic A, Juric B, Hollebeek L.52</td>
<td>2013</td>
<td>New Zealand</td>
<td>Engagement in virtual brand community: and exploratory analysis.</td>
<td>A qualitative netnography study (ethnographic research techniques to study online communities) of the online community Vibra-Train Ltd, a healthy/fitness company which sells whole of body vibration machines, utilising online observations and interviews.</td>
<td>▪ Consumers often engaged with online content for the purposes of learning, sharing of personal or relevant information/knowledge or experience, advocating, socialising and co-developing. ▪ Perceived value in co-creation through the use of specific consumer engagement processes resulted in outcomes such as consumer loyalty, satisfaction, consumer empowerment, connection, emotional bonding, trust, and commitment.</td>
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<td>Hutter K, Hautz J, Dennhardt S, Füller J.</td>
<td>2013</td>
<td>Austria &amp; Germany.</td>
<td>The impact of user interactions in social media on brand awareness and purchase intention: the case of MINI on Facebook.</td>
<td>Online questionnaire of visitors aged 14 and above to the German speaking MINI (cars) Facebook brand page (n=311).</td>
<td>▪ Annoyance negatively impacts brand page commitment and word of mouth. ▪ There was a significant relationship between brand awareness and word of mouth. ▪ Brand page commitment and brand awareness positively impacted purchase intention.</td>
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<td>Montgomery KC, Grier SA, Chester J, Dorfman L.</td>
<td>2013</td>
<td>United States.</td>
<td>The digital food marketing landscape: challenges for researchers.</td>
<td>Analysis, report and review of publicly available data, marketing campaigns, and scientific literature.</td>
<td>▪ There is relatively few studies on adolescent exposure to food and beverage advertising than there is compared to children. ▪ Concepts identified as unique to social media: ubiquitous connectivity, engagement, user generated content, personalisation, social graph, and immersive environments.</td>
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<td>Bruhn M, Schoenmueller V, Schäfer DB.</td>
<td>2012</td>
<td>Switzerland.</td>
<td>Are social media replacing traditional media in terms of brand equity creation?</td>
<td>Standardized online survey of social media users (n=393) regarding the tourism, telecommunications, and pharmaceutical industries presence on social media platforms.</td>
<td>▪ Firm-created social media posts positively influenced brand awareness and functional brand image while user-generated content impacted hedonic brand image. ▪ Brand awareness and functional and hedonic brand image positively influence brand attitude and purchase intention.</td>
<td>Low</td>
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| Lipsman A, Mudd G, Rich M, Bruich S. | 2012 | United States | The power of “like”. How brands reach (and influence) fans through social-media marketing. | Mixed methods design using quantitative data from comScore Social Essentials and Facebook’s internal analytics platform as well as observational data from 3 brand Facebook pages (Starbucks, Southwest, Bing). | - Highly engaging content and regular publishing can increase the amount of content which appears in a user’s newsfeed.  
- There is large potential for brands to reach friends of fans which do not follow or engage with the brands content.  
- Social media marketing can be tailored according to the demographics of followers. These may differ from the typical demographics of in-store customer. For example a higher amount of young people were following Starbucks on social media while the typical customers comprised more of older customers. | Low     |
| Christodoulides G, Jevons C, Bonhomme J. | 2012 | United States | Memo to marketers: quantitative evidence for change. How user-generated content really affects brand. | Quantitative survey of online participants (n=202) with questions derived from semi-structured interviews with 5 industry experts with experience in branding, marketing, and advertising. | - Consumers’ involvement with user generated content has a significantly positive impact on brand perception.  
- Consumers are more likely to be involved in user generated content for brands which allow them to define who they are and which give them creative tools to express themselves in a creative manner. | Medium  |
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- Digital marketing is integrated into the daily lives, experiences, and relationships of young people.  
- The use of web analytics and other forms of digital surveillance allows marketers to track individuals and analyse their social relationships. | Medium |
| Chester J, Cheyne A, Dorfman L. | 2011 | United States. | Peeking behind the curtain: Food and marketing industry research supporting digital media marketing to children and adolescents. | Analysis, report and review of publicly available data and scientific literature from the food and beverage industry and firms which are hired by these companies to undertake specialised research. | - Food and beverage advertisers play a leading role in supporting and conducting research in the field of digital marketing.  
- The food and beverage industry are aware of the increased connectivity of young people with digital media and therefore employ methods to specifically target young people in their online marketing techniques. | High |
| Chu SC, Kim Y. | 2011 | United States. | Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networking sites. | Online surveys from college students aged between 18-46 years old (n=363) regarding the relationship between online word of mouth and social networking websites. | - The average frequency of use among participants was 5 times per day with an average of 1.7 hours per day on social networking websites.  
- Strong social ties within their networks resulted positively impacted opinion seeking and opinion passing behaviour.  
- Trust had a significant positive impact on opinion seeking, passing and giving. | Medium |
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| Montgomery KC, Chester J. | 2009 | United States. | Interactive food and beverage marketing: Targeting adolescents in the digital age. | Non-systematic review of scientific literature and industry market research focused on digital marketing strategies to 13-17 year olds. | ▪ Marketing agencies have invested largely in tracking the ways in which adolescents integrate digital media into their lives and have developed marketing strategies accordingly.  
▪ Key features which define the digital media environment and marketing strategies: ubiquitous connectivity, personalisation, peer-to-peer networking, engagement, immersion, and content creation. | High    |

*Quality ratings were in accordance with the framework outlined by CASP for qualitative studies and reviews and by Glynn for quantitative studies. Studies were classified as high quality if they were rated above 75%, medium if they rated between 50% and 75% (inclusive), and low if they were rated below 50% (Appendix D: Stream 2).
Stream 3: Marketing SSBs on social media

The literature search for Stream 2 identified an additional two research papers which specifically discussed food and beverage marketing, with the inclusion of SSBs, on social media. The most recent is an audit on digital media marketing strategies of the highest selling fast-food, confectionary, and soft drink brands within Australia by Boelsen-Robinson et al. The second study is a content analysis by Freeman et al. analysing posts made by food and beverage brands to their Facebook pages. Both of these studies show similar marketing techniques discussed in Streams 1 and 2; however, they also provide insight into some of the specific techniques used by the food and beverage industry, including those used to market SSBs on social media. Both articles included in Stream 3 were rated as high quality. Content focusing on the marketing of SSBs on social media from the two identified articles were analysed and the main findings and common themes are discussed below with a summary of the two studies illustrated in Table 3.

Young people and SSBs on social media

All of the top food and beverage pages identified by Freeman et al were from nutrient-poor energy-dense dietary choices with 4 of the 27 pages for SSBs and an additional 3 separately classified as energy drinks. In total there were over 13 million Australian followers and over 277 million global followers on these 27 Facebook pages. The brand page activity volume varied between brands, with some brand administrators posting content multiple times daily and others making no posts over a month long period.

Young people make up a large proportion of the users who view and who are targeted by SSB brand content on social media. Freeman et al identified that the majority of food and beverage pages, including most SSB and energy drink pages, were followed by those between 18 and 24 years of age, with two Australian specific pages (Coca-Cola and Slurpee Australia) most commonly followed by users between 13 and 17 years of age. Alongside this, Boelsen-Robinson et al have identified that the majority of marketing activities on digital media by food and beverage brands are primarily targeted at adolescents with 92% of digital marketing by SSB brand Coca-Cola being identified as primarily targeted at adolescents and the remaining 8% targeted at children. These findings also show that, although the food and beverage industry are, for the most part, technically abiding by self-regulatory codes on
advertising to children, this is primarily due to age restrictions set by the use of such media itself (for example Facebook have restrictions that users must be 13 years of age or above to have an account). This study shows that, despite this, children are still exposed to a large amount of unhealthy food and beverage marketing as are adolescents who are not included within the self-regulatory advertising codes and are specifically targeted through digital media.

Food and beverage specific marketing techniques used on social media

The specific techniques used by the food and beverage industry on social media are similar to those previously discussed. Across Facebook pages identified by Freeman et al, all brands used branding elements and photos with the following most used marketing techniques including user-generated content (92.6%) and competitions, prizes and giveaways (88.9%). Other commonly used marketing techniques were videos, conversations, links, celebrities, and sponsorships.

Engagement and user-generated content

Boelsen-Robinson et al found that almost all marketing activities used by the food and beverage industry targeting adolescents on social media incorporated engagement techniques. Of the engagement techniques used, Boelsen-Robinson et al found viral marketing (in which the brand’s message is shared and spread throughout the social networks of its followers) to be the most commonly used engagement technique when targeting adolescents. Freeman et al also identified the widespread use of engagement as a marketing technique on social media with all SSB pages featuring UGC as well as many competitions requiring followers to engage in creating UGC. While Freeman et al found the overall percentage of followers engaging with brand pages to be low across all food and beverage pages, Coca-Cola had the highest engagement with 2.4% of its total followers (which during the week of data collection was equal to 1,430,168 followers) talking about their page. While this only represents a small fraction of the total followers, there were still over 1 million people who actively engaged with Coca-Cola and further spread Coca-Cola’s messaging throughout their social networks.
Product associations

Boelsen-Robinson et al\textsuperscript{54} identified that the majority of food and beverage marketing activities on digital media utilised indirect product associations and that brands targeting adolescents were predominantly associated with fun, sports, and “cool”. Freeman et al\textsuperscript{55} discussed the use of celebrities and endorsements as one common marketing technique by food and beverage brands. These associations were shown to be from both formal associations, for example some brands having a formal sponsorship with the Olympic Games, as well as informal associations, for example by showing images of celebrities and asking followers which one better represents their brand.\textsuperscript{55} Further to this, popular dates and events were also used to make brand associations; for example, all Australian brands analysed by Freeman et al\textsuperscript{55} posted an Australia Day message on Facebook which associated the consumption of their product with the qualities of being Australian.

Gap analysis

Stream 3 of this literature review has identified some of the techniques used by the food and beverage industry to market their products on social media and has provided specific examples of techniques used by SSB manufacturers towards young people on social media. Despite these studies providing some insight into this topic, no identified studies specifically assess SSB marketing towards young people on social media. Research which specifically focuses on the marketing of SSBs is likely to yield an additional understanding of how these beverages are being marketed to young people.
Table 3. Summary of articles included in Stream 3

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<th>Author</th>
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<th>Study design</th>
<th>Main findings</th>
<th>Quality*</th>
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| Boelsen-Robinson T, Backholer K, Peeters A. | 2015 | Australia. | Digital marketing of unhealthy foods to Australian children and adolescents. | Audit of a number of new digital media marketing strategies of the highest selling fast food, confectionary and soft drink brands within Australia between 1st of June to 31st of July 2013. | • The majority of marketing activities were targeted at adolescents with 92% of Coca-Cola activities primary targeted at adolescents.  
• Almost all marketing activities used indirect product associations and engagement techniques with fun, sports, and “cool” being the most predominant associations and viral marketing being the most common engagement technique used toward adolescents.  
• Although the food and beverage industry mostly met self-regulatory advertising codes, this was primarily due to age restrictions of the use of certain types of media which are not strictly enforced and therefore children are still being largely exposed to their marketing along with adolescents who are not covered in these regulation codes and who are specifically targeted through social media. | High     |
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| Freeman B, Kelly B, Baur L,   | 2014 | Australia.    | Digital Junk: Food and Beverage Marketing on Facebook. | Content analysis of all posts made on the top 13 international and 14 Australian based food and beverage | ▪ SSB pages were most commonly liked by those aged between 18-24 years, with 2 Australian specific pages (Coca-Cola Australia and Slurpee Australia) most commonly being liked by users 13-17 years of age.  
▪ Overall there was only a small percentage of followers actively engaged with the pages. Coca-Cola had the most engagement with 2.4% of its total followers (1,430,168) talking about the page during the week of data collection.  
▪ A large range of marketing techniques were identified with all pages using branding elements and photos, 92.6% using user-generated content, 88.9% using competitions, prizes and giveaways. Other techniques commonly used included videos, conversations, links, celebrities, and sponsorships.  
▪ Engagement techniques were widespread across the pages with all but 2 featuring user-generated content.  
▪ There was a variety of page activity among pages with some making posts multiple times per day and others posting no content for over a month. | High    |
| Chapman K, Chapman S, Gill T, |      |               |                                                         |                                                                                                         |                                                                                                     |         |
| King L.                       |      |               |                                                         |                                                                                                         |                                                                                                     |         |

*Quality ratings were in accordance with the framework outlined by CASP for qualitative studies and reviews and by Glynn for quantitative studies. Studies were classified as high quality if they were rated above 75%, medium if they rated between 50% and 75% (inclusive), and low if they were rated below 50% (Appendix D: Stream 3).
Literature review conclusions

This literature review has demonstrated that young people are prime targets of food and beverage marketing. The research findings discussed in this review have shown that a large proportion of marketing is disseminated through media which have a large adolescent audience and in ways that are particularly appealing to young people. One such example that was considered in further detail is social media which has shown to be largely integrated into the daily lives of young people today. Through conducting highly personalised market research, food and beverage manufacturers are able to identify which techniques most successfully resonate with young people. As a result, food and beverage marketers have created highly engaging and entertaining content that utilises the extensive peer-to-peer network accessible on social media to integrate their product branding into the daily lives of young people. While previous research and policy has focused on marketing towards children, albeit with questionable success, marketing of these products to young people has received little attention in both fields of research and policy despite their vulnerability consequential of many marketing strategies specifically targeted towards them.

Research Question

Rational

Consumption of SSBs is high in Australia, particularly among adolescents and young adults. The need to reduce added sugars in the diet, with SSBs a notable contributor, is attracting increased attention from health agencies interested in curbing obesity and associated non-communicable diseases. While the marketing of unhealthy food and beverage products to children has been a focus of research and policy interest, little attention has been focused on the marketing of such products to adolescents and young adults. The increased access to, usage of, and importance of social media for young people, paired with the unique opportunity provided by social media platforms for the continuous monitoring and facilitation of social interactions, consumer engagement, and peer-to-peer relationships, makes young people vulnerable to highly personalised and targeted digital marketing campaigns by the food and beverage industry. As marketing has been shown to encourage the consumption of SSBs, research on the ways in which these beverages are marketed to
young people will aid the development and implementation of future public health measures that aim to target SSB consumption in young people.

**Aim**

The aim of this study is to develop an understanding of the way in which SSBs are marketed to young people through social media. I will identify and compare specific techniques used by different SSB products and to analyse the unique role social media plays in achieving this. I will also explore the messaging used by these brands and identify messaging which is likely to specifically target, and resonate with, young people.

**Scope**

This project analyses the content which SSB brands post to their pages on the social media website Facebook. Due to time constraints, the scope of the project was restricted to analysing content from the one website. Facebook was selected as it is the most used social networking website in the world. A 6 month period of content posted by 6 SSB brands was analysed and Australian Facebook pages were used when available in order to keep the findings relevant to the Australian context. Only pages representing the full sugar-sweetened brands were included as it is these beverages which are the focus of this study due to their role in overweight, obesity, and chronic illnesses. Lastly, it was not within the scope of this project to attempt to determine the reach of the content posted by these brands; rather, the intent was to analyse the type of content they were sharing.

**Question**

The research question which this study addresses is: How are sugar-sweetened beverages marketed to people aged 13-25 years old on Facebook within Australia?
Chapter 3: Methodology

Ethics

This research project did not require approval by a Human Research Ethics Committee as it met the requirements for exemption as stated in section 5.1.22 of the *National Statement on Ethical Conduct in Human Research*. These requirements are that the research is of negligible risk, as defined in section 2.1.7, and that it involves the use of existing collections of data. This project used existing data publically accessible online and did not pose any foreseeable risk of harm or discomfort.

Although the research was exempt from ethical review, ethical consideration was still given to how the data were presented. There is debate surrounding the issue of privacy regarding data which is accessible through social media websites as, although these are publicly accessible, they may actually be considered of private nature by those posting the data. In relation to research, the issue of anonymity is of most concern when using data accessible online. In response to such concerns, careful consideration has been given to the use of user-generated content throughout this thesis as the users who created such content may not have been aware, or considered, how wide spread such content could become and the possibility of its use within research. A conscious effort has therefore been made to ensure that users’ names and social media account names are not displayed in this thesis and that images of individuals within user generated content are not easily identifiable.

Methodological approach

This research is situated within a social constructionism paradigm which presumes that reality is relative to an individual’s location within a shared set of social norms. The paradigm of social constructionism challenges the notion that knowledge is built upon objective and unbiased world views and consequently aims to expose the underlying power relations which influence what is often claimed to be objective knowledge. At the centre of social constructionist research methodologies is the analysis of language and other symbolic forms of communication, with macro-social constructionism specifically focusing attention on how such forms of communication are influenced by social structures, social relationships, and institutionalised practices. This research is well suited to the social constructionist paradigm as it examines how societal values influence the ways in which SSB
brands communicate with youth in their audiences and the likely ways in which young people make sense of such communication.

I approached the research question through conducting a content analysis of posts made by SSB brands on the social media website Facebook. A mixed methods approach has been used during data collection in order to collect both quantitative data, which provide frequency statistics on descriptive information, and qualitative data which explore the deeper meanings behind the content posted by these brands. The qualitative data have been analysed at both the semantic and latent level. Semantic analysis identifies the surface meanings of data while latent analysis identifies the underlying meanings which are theorised as shaping the semantic observations.60

Semantic themes have first been presented within the results section in order to describe surface level observations and trends of content posted by these brands. However, as this research is being conducted within a social constructionist paradigm, it aims to go beyond presenting descriptive data in order to theorise sociocultural influences on the content posted by these brands.60 Latent themes have therefore been explored within the discussion section in order to examine the underlying ideas, assumptions, and conceptualisations which underpin the data within semantic themes60 presented within the results. That is, it aims to explore the meanings behind content posted by these brands, how this content is shaped by the values held by Australian youth, and how young people are likely to make sense of them.

Methods

The following methods have been developed with guidance from the coding framework developed by Carah61 and Facebook content analysis methods used by Freeman et al.55

Sample selection

On the 6th of June 2015, the top 20 SSB pages were ranked using the social media monitoring website Socialbakers according to the total number of Australian Facebook users who had liked the pages (Appendix E). Pages were excluded if they were for artificially sweetened beverages as the scope of this research is specifically focused on beverages which are sweetened with sugar. Pages were also excluded if they were global pages when an Australian specific page also appeared in the top 20 ranking. This measure was taken in
order to capture marketing that is most specific to the Australian population. The top two pages from each category of soft, sports, and energy drinks were then selected, giving a total of 6 pages for analysis. The selected pages were: Coca-Cola Australia, Pepsi (Australia), Powerade Australia, Gatorade Australia, Red Bull (global), and Monster Energy (global). All official posts made by these pages to their page timeline between the 6 month period of 1 January 2015 and 30 June 2015 (inclusive) were collected for analysis. A 6 month sample was selected due to time constraints for coding data, with the particular 6 month period being the most recent. This resulted in a total of 446 posts included for analysis. Data were then collected on 17 August 2015 using NCapture for Nvivo.

Coding framework

A content analysis tool developed by Carah for the analysis of Facebook posts made by alcoholic beverage brands was initially adapted for relevance to SSBs and an additional code was added to collect information regarding hashtags and other methods of tagging. A small pilot of 4 randomly selected posts from each of the 6 pages were then coded to this framework and additional modifications were made. This process was then repeated once over. The coding framework was further adjusted and refined and each post was then coded in an excel spreadsheet to this framework. The final coding framework along with a detailed description of codes is provided in Appendix F. In brief, posts were coded for: call to action, hashtags/tags, advertisements, user-generated content, and popular culture. Other descriptive data which was also collected for each post included: post type (Status, Image, Video, Share, Link, Other), the product type which appeared in the post (SSB, low sugar, no sugar, multiple, or not specified), and the total number of likes, shares, and comments to date. The total number of likes for each page on the date of data collection was also recorded.

Data analysis

After each post was coded to the framework, the data was quantitatively analysed in Excel to provide an overview of the descriptive data and techniques used by SSB brands. Inductive thematic analysis was then conducted on posts. This is a form of analysis in which data are coded without the use of a pre-determined coding framework, resulting in data driven results. Each post was coded and analysed in a systematic manner which was in
accordance with the guidelines suggested by Braun & Clarke.\textsuperscript{60} In brief, each post was viewed again and initial codes were generated. Reoccurring patterns in the data were noted and then codes and patterns began to be sorted into potential themes. As a result, semantic themes were identified to present within the results. These semantic themes were then further analysed and latent themes were identified which described the broader conceptualisations which underpinned the semantic themes.

Not all categories which were coded for using the coding framework are presented within the results. Despite constructing clear definitions of codes and piloting of the coding framework, it became apparent during the collation and analysis of these results that the coding framework did not adequately capture what was being observed in the data. This was predominantly due to content often not explicitly exhibiting the characteristics being coded for, but often implicitly exhibiting them. As strict definitions were being used in order to achieve systematic coding of the data, such implicit displays of characteristics were not coded for. This suggested that these characteristics were better suited to a qualitative approach of data analysis.

Reflectivity

It is important to note that despite conducting an inductive thematic analysis, a researcher is unable to “free themselves of their theoretical and epistemological commitments”, as stated by Braun & Clarke.\textsuperscript{60} Therefore the themes which I have identified as important are likely to have been influenced by the social constructionist paradigm in which this research was being conducted. Further to this, as a young female who falls within the age category being researched, it was important that I remained reflexive about how my background and interests may have affected the way in which I viewed and interpreted the data, and the potential for these factors to shape my analysis. In particular, I noticed that I was inherently entertained by posts from Coca-Cola due to its colourful and fun content and was bored by posts from the remaining beverages due to their predominant focus on sport, in which I have no interest in. These observations particularly led me to question the role of my gender in my response to this content which became one focus of my analysis. Additionally, this also brought to my attention that I needed to ensure that my natural interest in some content over others did not affect how much attention I provided to each post, by each brand.
Chapter 4: Results

This chapter will commence by presenting the quantitative results collected through the coding framework. Specifically, I will present descriptive statistics on the types of posts, engagement rate, techniques encouraging engagement, and branding. I will then progress to present the qualitative results. These are divided into people, settings, and actions, which describe the semantic themes that have been constructed to reflect the content present within posts.

Quantitative results

Content posted by SSB brands receive a high level of engagement. Over the 6 month period, there was a total of almost 1.9 million engagements across all 6 pages by Facebook users through likes, comments, and shares on posts (Table 4). Sports drinks had the highest rate of engagement by followers across beverage types, with Gatorade having 333.9 per 1,000 followers engaging with their posts over the 6 month period and Powerade having an engagement rate of 286.4 per 1,000 followers over this period. Coca-Cola was also notable for its high engagement rate of 222.6 per 1,000 followers when compared with Pepsi which only received 4.5 per 1,000 followers engaging with posts over this 6 month period. These trends were consistent across all levels of engagement (likes, comments, and shares; Table 4).

Posts made by SSB brands were most often visual and were made in relation to sugar-sweetened products. Across all brands, posts were predominantly of photos and videos (62% and 34% respectively; Table 4). Four percent of posts consisted of just a web link to another page and only one posts from the total sample was a written status without the inclusion of any visuals. Sugar-sweetened beverages were the most frequently occurring product type within posts across pages, with below five percent of posts containing low and/or no sugar products. Posts made by Pepsi were an exception to this, with the brands no-sugar product Pepsi Max most frequently appearing in posts (87%; Table 4).

---

*Beverages which had reduced added sugar replaced with alternative non-sugar sweeteners were classified as ‘low sugar beverages’ opposed to ‘sugar-sweetened beverages’ to illustrate different beverage types.*
### Table 4. Descriptive characteristics of SSB posts over 6 months.

<table>
<thead>
<tr>
<th></th>
<th>Coca-Cola</th>
<th>Pepsi</th>
<th>Gatorade</th>
<th>Powerade</th>
<th>Red Bull</th>
<th>Monster Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td><strong>Sample</strong></td>
<td>75 -</td>
<td>147 -</td>
<td>79 -</td>
<td>21 -</td>
<td>14 -</td>
<td>110 -</td>
</tr>
<tr>
<td><strong>Page followers</strong></td>
<td>953,189</td>
<td>33,542,474</td>
<td>113,003</td>
<td>154,846</td>
<td>43,659,681</td>
<td>23,713,034</td>
</tr>
</tbody>
</table>
| **Engagement**
|                      | Likes     | Comments   | Shares   | Total    | Likes     | Comments   |
|                      | 196,537   | 131,785    | 31,680   | 212,159  | 1,115,681 | 12,219    |
|                      | 11,621    | 9,945      | 4,580    | 149,382  | 96,000    | 12,199    |
|                      | 4,001     | 7,652      | 1,474    | 37,734   | 61,352    | 55,140    |
|                      | 212,159   | 149,382    | 37,734   | 255,033  | 1,183,040 | 1,183,040 |
| **Post type**        | Photo     | Video      | Link     | Status   | Photo     | Video      |
|                      | 49 (65)   | 26 (35)    | 0 (0)    | 0 (0)    | 65 (59)   | 45 (41)    |
|                      | 106 (72)  | 34 (23)    | 6 (4)    | 1 (1)    | 0 (0)     | 0 (0)      |
|                      | 36 (46)   | 32 (41)    | 11 (14)  | 0 (0)    | 0 (0)     | 0 (0)      |
|                      | 19 (90)   | 2 (10)     | 0 (0)    | 0 (0)    | 0 (0)     | 0 (0)      |
| **Product type**     | SSB       | Low Sugar  | No Sugar | Multiple | Non Specific |
|                      | 64 (85)   | 3 (4)      | 0 (0)    | 1 (1)    | 7 (9)     |
|                      | 26 (18)   | 19 (13)    | 87 (59)  | 1 (1)    | 14 (10)   |
|                      | 51 (65)   | 0 (0)      | 0 (0)    | 1 (1)    | 27 (34)   |
|                      | 18 (86)   | 0 (0)      | 0 (0)    | 0 (0)    | 3 (14)    |
|                      | 12 (86)   | 0 (0)      | 0 (0)    | 0 (0)    | 2 (14)    |
|                      | 84 (76)   | 0 (0)      | 1 (1)    | 1 (1)    | 24 (22)   |

b Values displayed within percentage column are expressed as engagement rate per 1,000 followers of Facebook page.
Marketing techniques

Call to action

It was common for posts to include one or more call to action in which the brands were encouraging their followers to do something. Across all pages, between 62% and 93% of posts contained at least one call to action (Table 5). No brands directly asked their followers to like or share their posts and relatively few posts across brands directly asked followers to comment on posts (4%). Alternatively, posts across all brand pages were most likely to pose a question to users (28%-71%), encourage users to follow a web link (14%-71%), and/or promote a competition for users to enter (3%-39%; table 1). Further to this, sports and soft drink pages also directly encouraged users to create and share their own content (known as user-generated content) in a number of their posts (8%-18%; Table 5).

Tagging

Brands used a range of hashtags and Facebook tags (tagging) in order to link their posts to other content shared on social media. Hashtags allow Facebook users to create a link between their post and all other posts on Facebook which contain the same hashtag. Hashtags were regularly used by sports and soft drink pages with 60% to 78% of posts to these pages containing one or more hashtag (Table 5). The most frequently used hashtags were most commonly used in association to specific marketing campaigns (for example #colouryoursummer; Coca-Cola), competitions (for example #gchallenges; Gatorade), or sporting events (for example #cwc15; Pepsi and Gatorade). Monster Energy also utilised hashtags within 63% of posts although the brand used a wide variety of hashtags across posts opposed to the consistency of hashtags used by sports and soft drink pages. Red Bull on the other hand did not feature hashtags within any of the posts included within this sample.

Facebook tags allow Facebook users to create a link between their posts and other Facebook pages of people, places, and/or events. Facebook tags were most notably used by Monster Energy with 84% of the brands posts containing a Facebook tag (Table 5). Monster Energy often used multiple tags per post, with a total of 212 tags across the 110 posts made by this page over the 6 month period. Tagging was used by pages to link users to additional brand
created Facebook pages, for example Monster Energy Girls or the Pepsi Max Crew Facebook pages, as well as pages which did not appear to be created by the brand.

**Branding**

Branding was strongly present in content posted across pages however the techniques were notably different between beverage types. Between 66% to 92% of posts across all pages featured branding (Table 5). Energy drinks were the most likely to post content which contained brand logos alone, with only four branded posts made by energy drinks featuring images of their products. Within these posts, brand logos most commonly appeared on extreme sporting equipment. Sports drinks, on the other hand, often used a combination of brand logo with product image (28%-71%) or the use of brand logo alone (35% of Gatorade posts), with a small proportion of posts containing product images without a brand logo (3%-14%). In contrast to energy drinks, brand logos most commonly appeared as an overlay on images. Posts by Coca-Cola differed again, with images of products alone being the most predominant form of branding within posts (68%) opposed to brand logo alone (4%). Although Pepsi most frequently used their brand logo alone in posts (40%), overall posts showed a high variance between techniques.
Table 5. Marketing techniques of SSB posts over 6 months.

<table>
<thead>
<tr>
<th></th>
<th>Coca-Cola</th>
<th>Pepsi</th>
<th>Gatorade</th>
<th>Powerade</th>
<th>Red Bull</th>
<th>Monster Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Sample</td>
<td>75</td>
<td>147</td>
<td>79</td>
<td>21</td>
<td>14</td>
<td>110</td>
</tr>
<tr>
<td>Call to action</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTA</td>
<td>50 (67)</td>
<td>104 (71)</td>
<td>49 (62)</td>
<td>18 (86)</td>
<td>13 (93)</td>
<td>78 (71)</td>
</tr>
<tr>
<td>Passive</td>
<td>25 (33)</td>
<td>43 (29)</td>
<td>30 (38)</td>
<td>3 (14)</td>
<td>1 (7)</td>
<td>32 (29)</td>
</tr>
<tr>
<td>Like</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Comment</td>
<td>6 (8)</td>
<td>7 (5)</td>
<td>0 (0)</td>
<td>5 (24)</td>
<td>0 (0)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Share</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Tag</td>
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<td>8 (5)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Link</td>
<td>18 (24)</td>
<td>73 (50)</td>
<td>40 (51)</td>
<td>3 (14)</td>
<td>10 (71)</td>
<td>59 (54)</td>
</tr>
<tr>
<td>Event</td>
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<td>6 (4)</td>
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<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Competition</td>
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<td>57 (39)</td>
<td>31 (39)</td>
<td>3 (14)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>UGC</td>
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<td>26 (18)</td>
<td>14 (18)</td>
<td>3 (14)</td>
<td>0 (0)</td>
<td>0 (0)</td>
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<td>23 (29)</td>
<td>15 (71)</td>
<td>6 (43)</td>
<td>30 (27)</td>
</tr>
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<td>Hashtags</td>
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<td>114 (78)</td>
<td>58 (73)</td>
<td>14 (67)</td>
<td>0 (0)</td>
<td>69 (63)</td>
</tr>
<tr>
<td>Tags</td>
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<td>1 (1)</td>
<td>19 (24)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>92 (84)</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product image</td>
<td>51 (68)</td>
<td>34 (23)</td>
<td>2 (3)</td>
<td>3 (14)</td>
<td>0 (0)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Brand logo</td>
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<td>60 (41)</td>
<td>28 (35)</td>
<td>0 (0)</td>
<td>11 (79)</td>
<td>80 (73)</td>
</tr>
<tr>
<td>Both</td>
<td>15 (20)</td>
<td>26 (18)</td>
<td>22 (28)</td>
<td>15 (71)</td>
<td>0 (0)</td>
<td>3 (3)</td>
</tr>
<tr>
<td>None</td>
<td>6 (8)</td>
<td>27 (18)</td>
<td>27 (34)</td>
<td>3 (14)</td>
<td>3 (21)</td>
<td>26 (24)</td>
</tr>
</tbody>
</table>
Qualitative results

The following section presents the semantic themes which have been identified qualitatively. These themes revolve around people, settings, and actions, and they describe the surface level characteristics of the data. The themes ‘people’ and ‘settings’ describe the characteristics of the people and locations commonly illustrated within posts while the theme ‘action’ describes the predominant techniques and messages within posts.

People

Gender

The use of male characters was prominent in content shared by sports and energy drinks. These brands sponsored male sporting leagues and, as a consequence, the majority of content posted by these brands featured male athletes. Sports drinks shared images which illustrated males with an athletic and muscular appearance, and further portrayed them as strong and tough through sports endurance (Figure 2). Male athletes presented in energy drink brands similarly achieved this through displaying external characteristics such as tattoos and beards (Figure 3). Pepsi also showed more males than females. This was most common among sport related posts, which were highly prevalent in posts by Pepsi. Coca-Cola was the exception to SSB brands, with a higher representation of females within posts, and overall a more balanced use of gender in comparison to other SSBs. Both males and females within Coca-Cola posts appeared thin and stylish.

Figure 2. Men in sports drinks (Powerade, 18-06-15).

Figure 3. Men in energy drinks (Monster Energy, 07-05-15).
Women were rarely displayed in content posted by sports and energy drink brands and when they were, they were used in specific, and limited, ways. In the limited occasions when women were illustrated within posts made by sports drinks, unlike many posts featuring men, the focus was not on the women themselves. For example, Figure 4 illustrates an unidentified women participating in everyday physical activity. This was the only image of a woman shared by the sports drink brand Gatorade. Female athletes featured as the focus of two posts by energy drinks. Besides this, women were used to add sex appeal to content. In posts by Monster Energy, ‘Monster Energy Girls’, a group of bikini models, were featured in branded clothing and were portrayed as an accessory to the branding and sponsored sport (Figure 5).

![Figure 4. Women in sports drinks (Gatorade, 28-04-15).](image1)

![Figure 5. Women in energy drinks (Monster Energy, 19-01-15).](image2)

**Age**

Age was represented differently across brands with the nature and extent to which youth were presented also differing across brands. Content posted by Coca-Cola was entirely composed of youthful characters. Most commonly, the brand used youthful models to advertise products. The brand did, however, also use adolescent consumers within posts, often depicting them interacting with the brand in real life (Figure 6). Pepsi also used
youthful models in many of their posts (Figure 7); however, posts rarely featured images of adolescents.

![Figure 6. Adolescents in soft drinks (Coca-Cola, 09-01-15).](image)

![Figure 7. Young people in soft drinks (Pepsi, 06-02-15).](image)

Energy and sports drinks, by contrast, predominantly portrayed established adult athletes who were mature in appearance. However, both beverage types did also incorporate the use of youth within posts, with youth most often portrayed in amateur or everyday sporting activities. The sports drink Gatorade, for example, advertised an athlete challenge on their Facebook page in which a young male was illustrated alongside a well-known Australian Football League (AFL) player (Figure 8). Subsequent posts featured competition entries in which young people filmed and shared their attempt to score a football goal from a difficult position. Energy drink brand Monster Energy in contrast, incorporated youth within posts through including young athletes participating in common sporting activities such as skateboarding.

![Figure 8. Young people in sports drinks (Gatorade, 18-05-15)](image)
Settings

Everyday life

Everyday living and leisure activities were represented across SSB brand pages. Content shared by soft drink brands depicted a range of common settings, for example relaxing at home or at a park, and common leisure activities, for example going to the movies or camping with friends. While energy and sports drinks were predominantly set in professional sporting environments, they also portrayed more ordinary leisure sports and physical activity. Sports drinks, for example, shared a range of images which showed people engaging in everyday physical activity such as attending the gym or going for a run, as was illustrated in Figure 5. Although posts by energy drinks featured sports considered to be extreme, they also incorporated common activities and environments, for example BMX biking or skateboarding in urban environments or skate parks (Figure 9).

Figure 9. Everyday leisure in energy drinks (Monster Energy, 06-03-15)

Outdoors

The use of the outdoor and natural environment was common across all pages. Energy drinks often posted videos or images which featured a variety of exotic picturesque locations from around the globe such as deserts and mountains (Figure 10). Sports drinks on the other hand most often shared content of outdoor sporting environments such as the cricket or football field. Although many sports often take place outdoors, posts appeared to actively use the...
outdoor environment even when it did not appear necessary (Figure 11). Soft drinks also largely incorporated the use of the outdoor environment. Posts by Coca-Cola often featured a sunny outdoor location such as the beach, the pool, or the park. Similar to sports drinks, outdoor imagery was used even when not apparently necessary, highlighting the importance of this association with the brands’ products. Pepsi used a combination of outdoor sport imagery similar to sports drinks, and more general every day outdoor locations similar to Coca-Cola (Figure 12).

Figure 10. Outdoor imagery in energy drinks (Red Bull, 27-05-15).

Figure 11. Outdoor imagery in sports drinks (Gatorade, 20-03-15).

Figure 12. Outdoor imagery in soft drinks (Pepsi, 06-04-15).
Youth targeted events

Most notably, Coca-Cola posted about events which were clearly targeted at youth. Over the six months included within the sample, Coca-Cola advertised the following sponsored events: ‘Good Life Festival’ (an under 18’s music festival), ‘This is Amplify’ (an entertainment hub for teens), a music event held at the popular Wet’n’Wild theme park, and a gaming event held at a Westfield shopping mall featuring a guest teenage internet star. In addition, Coca-Cola posted photos of groups of adolescents attending these events to their page.

Actions

Sports sponsorship

Sponsorship of sport was a common marketing approach across energy and sports drinks, as well as Pepsi. Content posted by sports drinks often highlighted sponsored affiliations with field based team sports and athletes, for example the AFL or the National Rugby League. By contrast, energy drinks posted content which showcased their sponsored affiliations with numerous extreme sporting events and athletes, for example a motorsport tournament or a professional surfer. Pepsi had a combination of sponsorships, with the brand being an official sponsor of the 2015 Cricket World Cup as well as the Pepsi Max Crew (a car racing team).

Most often, brands would post images or news regarding their sponsored sport events and athletes. Sports drinks also provided users the opportunity to voice their opinion through asking questions regarding sponsored sporting events and athletes (Figure 13). Further to this, sports drinks used their official sponsorships in order to encourage users to directly associate the brand’s products and messaging with sporting teams and events. As an example, a specific technique evident in posts made by Powerade was the encouragement of users to pair coloured beverages with their favourite team’s colours (also illustrated in Figure 13).
Content posted by sports drink brands was heavily focused around sports success and the role their products played in achieving such success. Posts by these brands often highlighted the challenges met by athletes and portrayed their products as a necessity for athletes’ sporting success and nutritional replenishment. Within posts, emphasis was commonly placed on hydration, sweat, heat, and electrolytes and brands utilised the concept of sports science to support their messaging. This messaging was strongly communicated throughout Gatorade’s 6 week Sports Science Series, in which AFL athletes attended the Gatorade Sports Science Institute (located in Florida) in order to undertake nutritional testing during training. Gatorade shared a video per week which featured AFL stars and scientists discussing sports nutrition, and specifically the importance of nutritional preparation and replenishment in providing athletes with a competitive edge. For example, episode two post

**Sports success**

![Image](image.png)
read: ‘balancing hydration needs gives players the competitive edge’ with the following video excerpts [Gatorade, 18-06-15]:

“Scientifically it shows that when you’re hydrated you’re performing, you’re able to perform at your peak for longer” Tom Hawkins, Geelong Football Club.

“Having each guy understand how much fluid he needs to consume, how much energy he needs to take in, you know, the right amount of electrolytes for him, it all adds up” Melissa Anderson, Gatorade Sports Science Institute Principal Scientist.

Challenge and winning

The notion of rising to a challenge, and winning, was common across content by most SSBs. Content posted by sports drinks extended their messaging beyond sports success at an athletic level to physical activity by the everyday consumer. Content which portrayed everyday physical activity, was often accompanied by inspirational messaging around the ideals of rising to a challenge and being the best you can be in order to reach your own personal fitness goals (Figure 14).

Figure 14. Challenging the everyday consumer in sports drinks (Gatorade, 02-01-15).
Posts made by energy drinks consistently revolved around extreme sports. The posts often depicted athletes engaging with challenging events and manoeuvres, often with some degree of risk taking. To further emphasise the challenge and element of danger within such activities, posts often incorporated elaborate sporting environments such as flames and fireworks, extreme weather conditions, and/or the use of high-energy music such as rock, punk and electronic music (Figure 15 and Figure 16). Posts would often highlight those athletes who did exceptionally well, and who won, within their competitions. Sports drinks and Pepsi similarly placed emphasis on sporting teams who won and athletes who performed well. Both Sports drinks and Pepsi also set challenges for their followers to undertake and share with other Facebook users. Gatorade for example, ran ‘Gatorade Challenges’ in which users were required to attempt different football related tricks with the winners being shared on the brands page. Similarly, Pepsi ran ‘Pepsi Challenges’, one example of such challenge was for users to film themselves performing a special talent and post it to the brands page in attempt to be ‘noticed’ by two popular sportspeople.

![Figure 15. Challenge in energy drinks (Monster Energy, 29-04-15)](image1)

![Figure 16. Challenge in energy drinks (Red Bull, 18-02-15)](image2)
Friends and fun

Content posted by Coca-Cola largely revolved around being lively and having fun with friends. Friendship was frequently illustrated by the brand, with posts often containing images of friends engaging in some form of leisure (Figure 17). Posts most often portrayed close friendships with emphasis placed on the concept of best friends, or “BFF”, best friends forever. The brand not only depicted people engaging in friendship, but it would commonly show images of their products paired together as though they were “friends” (Figure 18). Alongside images showing friends was the use of imagery that portrayed happiness, which further emphasised the association of fun with their products (also illustrated in Figure 17).

Although Pepsi also shared some content which illustrated friends, close friendship was not a prevalent theme across their posts. Similarly, it was not common for sports and energy drinks to depict friends within their content, however sports drinks often focused on the idea of their sponsored athletes being part of the brand’s ‘family’ or ‘team’.

Further to this, Coca-Cola also communicated with their audience in a fun and friendly tone. The brand used an informal tone across posts and regularly used slang, internet acronyms, and emoticons which came across highly youth oriented (Figure 19). The effect created by this form of communication was that the brand was communicating with their audience as though they were friends.
Coca-Cola Australia
February 3

Our COKE cans are so small and cute 😽�❤️ #colouryoursummer with 6 coloured cans to uncover a surprise! It’s not a pug 😈

Coca-Cola Australia
April 22

These two are our OTP. #friendshipgoals

Coca-Cola Australia
May 18

Our perfectly small can is always on point #ootd #autumn

Figure 19. Coca-Cola's tone (Coca-Cola, Feb-May 2015)

Summary

SSB brands receive a large amount of engagement on Facebook and use a range of techniques to encourage this. Their content displays leisure activities and environments and also features young people. Further, sports and energy drink brands also share a large amount of content that demonstrates sponsorship of sports and is highly dominated by men.
Chapter 5: Discussion

Sugar-sweetened beverage brands utilise their social media presence to market their products to young people. Drawing on my results, the following section discusses some of the ways in which this is achieved. I will begin by discussing how engagement is encouraged and received by these brands and the surprising differences observed in the content posted by the two soft drink brands Coca-Cola and Pepsi. I will then delve into the themes which can be identified within the data through analysing and interpreting the results from a social constructionist perspective. These themes are: masculinity, femininity, friendship, and leisure. With the support of theory and previous literature, I will argue that SSBs use social media to connect with the everyday lives of young people through aligning their products with these sociocultural values and practices which are regarded as important by Australian youth today.

Engagement

Posts made by SSB brands are not passive in nature but rather actively encourage users to engage with the brand. A variety of techniques were observed in posts by brands that encouraged user engagement. While some techniques specifically aimed to generate engagement with the post itself, for example posing a question to users, posts were also used to encourage engagement with the brand beyond this. One example was the sharing of web links with branded content elsewhere online.

Efforts to receive engagement were not confined to the online environment, however, with content also encouraging engagement offline, for example through encouraging users to attended brand sponsored events in real life. Sponsorship of events is not a new technique used to market SSBs;25, 29, 31 however, social media does provide a new channel through which to communicate these sponsorships. Freeman et al55 has similarly identified this to be a common technique used by the food and beverage industry on Facebook.

Brand engagement cannot simply be divided into ‘online’ and ‘offline’. In this study, brands employed specific techniques which encourage a seamless integration of offline and online engagement. Encouraging users to create content in real life, such as through a photo of themselves, often with some element of branding, and to share this content online (known
as user-generated content), was one way in which this was achieved. Hashtags which were associated to particular brand marketing campaigns were used frequently across sports and soft drink brand posts and provide an easy way for users to link their content to SSB brands and share these throughout their online peer networks. Engagement with SSB brands on Facebook, which, as the results have shown, is high, further acts to spread the brands’ marketing throughout the users’ online peer network and act as a form of peer endorsement. As the followers of SSB brand pages within Australia are highest among young people between 13-24 years of age it is likely that SSB brand content will be highly visible to young people on Facebook.

The exception of Pepsi

Content by Pepsi contrasted with trends of other brands in that it largely focused around the brands’ sugar-free product Pepsi Max. It was considerably different to content posted by its comparable beverage Coca-Cola. An unexpected observation within the results was the persistent focus on Pepsi Max products and branding within content posted to the generic Pepsi Facebook page. Pepsi and Coca-Cola both have separate Facebook pages for their sugar-free beverage varieties Pepsi Max and Coca-Cola Zero, with these pages receiving a lower number of followers than their generic pages. Alongside this, brand pages of low or no-sugar varieties which were created for sports and energy drink brands included within this study appear to have since been merged into their generic brand pages, presumably due to low up-take of followers. It was therefore a surprising yet interesting result that Pepsi purposefully chose to focus content on Pepsi Max while other brands were predominantly using these pages to promote their full-sugar sweetened products.

One explanation for this trend is that Pepsi may be addressing consumer concerns, with previous literature suggesting that consumers are becoming increasingly aware of the negative health effects associated with soft drink consumption (although not necessarily other SSBs). A second potential explanation is that the brand may have undergone re-branding in attempt to re-connect with, or even to re-define, their target audience. While content posted by sports and energy drink brands were highly similar, content posted by Pepsi and Coca-Cola was not, making it difficult to summarise these both under the category of ‘soft drink’. An alternative explanation is that advertising Pepsi Max through the use of

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male predominated leisure activities such as sport may be a targeted approach to market to young males who have shown increasing concern in weight gain.62 Pepsi shared many similarities with the content posted by sports and energy drink brands which, as will be discussed in further detail below, specifically targeted young males.

Masculinity

Content shared by sports and energy drinks as well as Pepsi aligned their products with values and characteristics which commonly symbolise masculinity. Masculinity is a socially constructed concept which is often ascribed to the gendered practices of males.63 While there are many different forms of masculinity, ‘hegemonic masculinity’ prevails as the most commonly desired masculinity within western countries, particularly within Australia.63 A dominant symbol of hegemonic masculinity is competitive sport,63 which was a common theme observed across beverages with content being highly focused on rising to a challenge and winning. Another dominant symbol of hegemonic masculinity is muscular physique, which is also often associated with achieving sports success.63 The body’s physique has therefore become a focal point through which males attempt to express their masculinity.64 A study by Drummond65 highlights the importance placed on achieving a muscular physique by young males within Australia. In this five year longitudinal study investigating the construction of masculinity among young males, participants expressed the perspective that muscularity and strength were an important symbol of being a man and played a significant role in winning.65

Sports drink brands shared a large amount of content to their page which featured muscular males and emphasised the qualities of being strong and tough. In doing so, these beverages are not only reinforcing that such qualities play an important role in the construction of masculinity and should therefore be desired, but the brands also associate their products with achieving this. The expression of masculinity is considered important for young males as they often feel under pressure to ‘prove’ themselves within their social groups,66 it is therefore likely that they are particularly susceptible to the marketing of SSBs which associate their products with masculinity and with achieving these characteristics.

Content by energy drinks, on the other hand, portrayed traits ascribed to hard core masculinity.67 While hard core masculinity shares many similarities to hegemonic
masculinity, one difference is the importance of actions as a symbol of authentic toughness as opposed to a predominant focus on a muscular physique. This difference was observed in content posted by energy drinks which, while still focused around the characteristic of being tough, did this through showing athletes participating in challenging and often dangerous extreme sporting events. This is likely an effective marketing technique as a hard core image derived from ‘being real' has been identified as the most commonly accepted and desired by audiences interested in extreme sports. These audiences are also sceptical of brands if they are not perceived as having a longstanding commitment to the sport or which appear to target ‘newcomers' or young people.

The importance of an authentic hard core masculine image to this audience provides an explanation as to why energy drink brands did not post images of their products. Rather, these brands continually posted content featuring extreme sports being undertaken with branding only occurring on sporting equipment’s within images/videos. It also adds explanation as to why young people themselves rarely appeared within content and, when they did, it was always within the professional context. Nevertheless, the characteristics associated with the extreme sporting scene strongly resonate with young males which has led marketers to use extreme sports as an effective strategy to advertise to the youth market. Content posted by energy drink brands therefore gain credibility within their youth audience through portraying an authentic image of hard core masculinity and a strong commitment to extreme sports.

The absence of women in content posted by the aforementioned brands is also consistent with the common view in masculine cultures that women are subordinate to men, and consequently are seen to have no place within sports. Further to this, when women were present within content by energy drinks, they were most often sexualised. This marketing technique is effectively used to market a range of products.

What about femininity?

Coca-Cola contrasted with the other brands in that it did not focus on masculinity, but rather included feminine qualities within its content. In many western societies, being young, thin, beautiful, and vibrant are common characteristics which symbolise femininity. Young females often feel under pressure to display such characteristics in order to fit in.
Consequently marketers appeal to these qualities in advertising, often through the use of youthful character. These values were observed within content posted by Coca-Cola, with all characters having a youthful and attractive appearance. The content itself was also highly vibrant with the use of a range of colourful images and lively content which was not observed in content posted by other brands. This may suggest that, while sports and energy drinks predominantly target young males, Coca-Cola are also specifically targeting young females.

Friendship

Friendship is a value of high importance to young people today which SSBs capitalise on through social media. While friendship is not a new value in the lives of young people, it has become increasingly important for today’s youth who believe that “friends are the family you get to choose” and often value friendships above other forms of relationships. Youth friendships play a large role in driving youth consumption and, in response, marketers have used social media as a tool to harness existing peer friendship as a source for driving peer-to-peer marketing. This technique was evident in content posted by SSB brands, particularly sports and soft drinks, which actively encouraged their users to bring the brands’ content to the attention of their friends.

Coca-Cola also used a large proportion of their content to associate their brand with friendship. Imagery of friendship was widely used by Coca-Cola. A common example was an image of friends having a good time together while consuming the beverage, or products paired together described as “BFF” (best friends forever). In this way, Coca-Cola often appeared as an accessory to friendship with consumption of these beverages being associated as a common part of socialising with friends. The focus on best friends is also consistent with the common friendship dynamics of young females who often form intense friendships with one or two best friends opposed to young males who often have larger and loosely defined friendship groups. The particular portrayal of friendships in content by Coca-Cola may therefore further indicate that the brand is specifically targeting young females.

Further to the above, SSB brands often used their presence on Facebook to communicate with their audience as though they were friends. While many traditional forms of advertising
are communicated by the brand, as a brand, communication by SSB brands on Facebook often displayed a sense of personality as though posts were being made by a person rather than a brand. This trend was most notable in content posted by Coca-Cola which not only used a highly friendly and informal tone but also used a large amount of youth slang and internet acronyms. With youth today often being sceptical of large corporations, viewing them as untrustworthy and undependable, alongside the high value placed on friendship by youth, SSB brands may be communicating as friendly personalities in attempt to develop trust and loyalty with this audience.

**Leisure**

SSB brands use social media to align their products with leisure activities and environments which are popular for young people. Young people seek to find spaces in which they can distance themselves from the constant supervision of adults and the stresses of everyday life. They often find such environments outdoors in nature, making locations such as parks and the beach a common environment for the practice of leisure among young people.

This provides an explanation as to why SSB brands frequently used imagery of the outdoors and nature within their Facebook content. The use of exotic and picturesque images of outdoor locations which were observed among posts by energy drink brands appears to be a common technique to advertise products which are associated with extreme sports. In a study by Wheaton, it was found that advertisements with such imagery in extreme sporting magazines were identified by their audience as highly appealing and was more important than product images for letting them know what the brand was about. This also explains the lack of product images used in content posted by energy drink brands in comparison to other drink brands.

Additional spaces for leisure which appeared in content across brands such as sporting matches, shopping malls, and urban spaces have also been previously identified as common places for the practice of leisure for today’s youth. Further to this, advances in technology and the experience of the internet has highly enhanced leisure activities for youth today. Through providing Facebook users ways to engage in leisure activities, for example sharing high quality videos of extreme sporting events, allows SSB brands to play and active role in the practice of youth leisure. SSB brands therefore use social media to associate their
products with the leisure environments of youth while also providing a source of leisure for youth.

Summary

SSB brands use social media as a way to target young people with their marketing. They achieve this through associating their products with sociocultural norms and practices deemed important by young people. Sports and energy drink brands specifically direct their marketing at young males.

Limitations

A limitation of this study is that the content which was viewed on the Facebook pages may not reflect the content viewed by young people on their newsfeeds. The content which appears on a Facebook newsfeed is influenced by a complex algorithm which incorporates how interactive an individual and their Facebook friends are with the page. Further to this, brand pages can select the demographics of the audience they want to see their posts. This was known prior to beginning the research project which is why content was taken directly from the pages of the brands and it was not within the scope of the study to attempt to measure the true reach of this content. What was not known, however, is that Facebook pages have control over who can view each post on their page, not just the posts visible in a user’s newsfeed. It was prior assumed that all posts made by the brand would appear on their page, despite demographic targeting for newsfeeds. It became apparent during the study that this was not the case as different users within the research team were able to view different content. This particularly became problematic when accessing energy drink pages, especially Red Bull, and it is therefore highly likely that the content included within this study is an under estimation of the true amount of content posted by some of these SSB brands. Further to this, only 6 of the most popular beverages were included within this study. This may not represent the techniques used by all SSB brands, especially the less known brands which may be using social media in an attempt to establish their brands. Similarly, this study has only been able to present the marketing techniques used on Facebook and therefore the results may not be generalizable to all social media platforms as interactions may differ across the different platforms.
Chapter 6: Conclusions and recommendations

In this study I have explored the marketing of SSBs to Australian young people on social media. Through analysing the content posted by SSB brands to their Facebook pages, I have identified current marketing techniques and messaging used by the beverage industry to sell their products, and have discussed how these are likely to resonate with young people.

The findings from this study have shown that SSB brands share highly engaging content on social media which seamlessly integrates their content into the lives of young people today. Further to this, brands align their products with common sociocultural values and practices which are regarded as important by young people, and in doing so, portray their products as having a normal place within the everyday lives of young people.

This study has investigated the potential of social media marketing to influence SSB consumption, and contributes to the evidence base, showing young people are specifically targeted in the marketing of SSBs. The study has drawn attention to social media as a relatively new medium through which SSBs can uniquely target young people in their marketing. In doing so, it has highlighted SSB marketing as a potential factor influencing SSB consumption and as one potential route through which the problem of weight gain and the development of non-communicable diseases can be addressed. The findings of this research can therefore be used to help inform future public health policy and interventions that aim to reduce SSB consumption within young people.

While this research has identified techniques used to market SSBs to young people, it is unable to determine how these techniques influence consumption. Future research could therefore explore what influence the identified marketing techniques have on young people’s perceptions, and consumption behaviours, of these products. Future studies could also further explore how followers engage with SSB brands through analysing the types of content they post to SSB pages and the ways in which SSB brands specifically interact with these users. Lastly, future research should aim to incorporate more SSB brands and different social media platforms in order to provide further understanding on this topic.
Appendices

Appendix A. PubMed Logic Grid (Stream 1)

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## Appendix B. Scopus Logic Grid (Stream 1)

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Appendix C. Search yield summary diagram (Stream 1)

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Text analysis
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Results N=14
↓
Results N=13
↓
Included from Snowballing N=1
↓
Integrative review N=14

Exclusion limitations: Language other than English and published before 1995.
Exclusion of Duplicates: N=58
Exclusion due to lack of relevance to study topic: N=5
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        Opinion= 2
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    No focus on SSB marketing: N=53
Excluded due to no distinct discussion of SSB from overall food/beverage category N= 20
Excluded as article is highly similar to another with same authors and data N=1

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Appendix D. Literature quality rating

Critical appraisal tool are coded as follows:
A = CASP Qualitative Research Checklist\textsuperscript{37}
B = EBLIP Quantitative Checklist\textsuperscript{39}
C = CASP Review Checklist\textsuperscript{38}

Quality ratings are calculated as follows:
Y = (Yes)
N = (No)
U = (Unsure)
N/A = Not applicable to that study

Quality rating = \frac{Y + N + U}{total\ score}

Quality rating classifications are as follows:
High = greater than 75%
Medium = between 50% and 75% (inclusive)
Low = less than 50%
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<td>Hutter K, Hautz J, Dennhardt S, Füller J.53</td>
<td>Quantitative</td>
<td>B</td>
<td>11</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>52%</td>
<td>Medium</td>
</tr>
<tr>
<td>Schivinski B, Dabrowski D.50</td>
<td>Quantitative</td>
<td>B</td>
<td>9</td>
<td>3</td>
<td>7</td>
<td>7</td>
<td>47%</td>
<td>Low</td>
</tr>
<tr>
<td>Lipsman A, Mudd G, Rich M, Bruich S.46</td>
<td>Mixed methods</td>
<td>B</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>12</td>
<td>42%</td>
<td>Low</td>
</tr>
<tr>
<td>Bruhn M, Schoenmueller V, Schäfer DB.49</td>
<td>Quantitative</td>
<td>B</td>
<td>8</td>
<td>5</td>
<td>7</td>
<td>6</td>
<td>40%</td>
<td>Low</td>
</tr>
</tbody>
</table>
## Appendix D: Stream 3

<table>
<thead>
<tr>
<th>Study</th>
<th>Study Type</th>
<th>Tool</th>
<th>Y</th>
<th>N</th>
<th>U</th>
<th>N/A</th>
<th>%</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeman B, Kelly B, Baur L, Chapman K, Chapman S, Gill T, King L.</td>
<td>Mixed</td>
<td>B</td>
<td>14</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td>87%</td>
<td>High</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Study</th>
<th>Study Type</th>
<th>Tool</th>
<th>Y</th>
<th>N</th>
<th>U</th>
<th>N/A</th>
<th>%</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boelsen-Robinson T, Backholer K, Peeters A.</td>
<td>Mixed</td>
<td>B</td>
<td>13</td>
<td>1</td>
<td>2</td>
<td>10</td>
<td>86%</td>
<td>High</td>
</tr>
</tbody>
</table>
Appendix E. Top 20 SSB Facebook pages by Australian fans

<table>
<thead>
<tr>
<th>Rank</th>
<th>Facebook Pages</th>
<th>SSB Category</th>
<th>Australian Fans</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Red bull</td>
<td>Energy drink</td>
<td>883,469</td>
</tr>
<tr>
<td>2</td>
<td>Coca-Cola Australia</td>
<td>Soft drink</td>
<td>788,852</td>
</tr>
<tr>
<td>3</td>
<td>Coca-Cola</td>
<td>Soft drink</td>
<td>691,157</td>
</tr>
<tr>
<td>4</td>
<td>Monster Energy</td>
<td>Energy drink</td>
<td>398,075</td>
</tr>
<tr>
<td>5</td>
<td>Slurpee Australia</td>
<td>Other</td>
<td>390,155</td>
</tr>
<tr>
<td>6</td>
<td>V Energy Drink Australia</td>
<td>Energy drink</td>
<td>389,958</td>
</tr>
<tr>
<td>7</td>
<td>Pepsi</td>
<td>Soft drink</td>
<td>272,408</td>
</tr>
<tr>
<td>8</td>
<td>Fanta Australia</td>
<td>Soft drink</td>
<td>208,519</td>
</tr>
<tr>
<td>9</td>
<td>Lipton Ice Tea</td>
<td>Other</td>
<td>176,644</td>
</tr>
<tr>
<td>10</td>
<td>Coca-Cola Zero Australia</td>
<td>Soft drink: artificially sweetened</td>
<td>172,511</td>
</tr>
<tr>
<td>11</td>
<td>Nudie™</td>
<td>Juice</td>
<td>160,510</td>
</tr>
<tr>
<td>12</td>
<td>Dr Pepper</td>
<td>Soft drink</td>
<td>143,543</td>
</tr>
<tr>
<td>13</td>
<td>Powerade Australia</td>
<td>Sports drink</td>
<td>141,739</td>
</tr>
<tr>
<td>14</td>
<td>Kirks Originals</td>
<td>Soft Drink</td>
<td>133,544</td>
</tr>
<tr>
<td>15</td>
<td>Mother Energy Drink</td>
<td>Energy drink</td>
<td>121,575</td>
</tr>
<tr>
<td>16</td>
<td>Mountain Dew Australia</td>
<td>Soft drink</td>
<td>106,902</td>
</tr>
<tr>
<td>17</td>
<td>Vitaminwater</td>
<td>Other</td>
<td>104,263</td>
</tr>
<tr>
<td>18</td>
<td>Gatorade Australia</td>
<td>Sports drink</td>
<td>101,509</td>
</tr>
<tr>
<td>19</td>
<td>Rockstar Energy Drink US</td>
<td>Energy drink</td>
<td>89,058</td>
</tr>
<tr>
<td>20</td>
<td>Mountain Dew</td>
<td>Soft drink</td>
<td>82,980</td>
</tr>
</tbody>
</table>

*Note: this data was collected on 6th June 2015.*
Appendix F. Coding framework

Descriptive statistics

Facebook page name  
Date and time of post  
Post type: Text, Image, Video, Share, Link, Other.  
Number of likes, shares, and comments to date  
Product type: SSB, low sugar, no sugar, multiple, not specified.

Practices

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
</table>
| Ask      | Is there a call to action or is it passive? Is the post asking followers to..  
Like  
Comment  
Share  
Tag someone  
Follow a link  
Follow a tag  
Attend an event  
Or is it asking them to participate in..  
Quizzes or polls  
Competitions  
Generate UGC on the page  
Or is it..  
Asking a question |
| Hashtag  | Do hashtags appear in the post text or on the included image/video?  
What hashtags are used?  
Does a hashtag appear to be part of a marketing campaign? |
| Activation | Is the post portraying something which the brand does in ‘real life’?  
Promotion of products in ‘real life’: This is where the product promotes its brands through their involvement in real life events. Posts included in this are those which are predominantly showing the presence of the brand in real life.  
Advertisements of ‘real life’: This is where brands set up ‘real life’ activities which are used as advertisements for their brands. Posts included in this are those which are showing a staged event which is predominantly for the purpose of advertising the activation through other media. |
| Advertisements | Images or videos which include the product image, brand logo or both. |
| Consumption benefits | Does the post associate consumption with some kind of benefit or result due to consumption? For example the product will provide them with energy or hydration.  
Is this association:  
Direct: the brand are directly stating this message (i.e. “X will provide rapid hydration”) or the brand post about someone else stating this message (i.e. X person saying they drink X product for hydration). |
Indirect: the brand are making indirect associations (i.e. “stay hydrated when it is hot” with a product image or logo).

<table>
<thead>
<tr>
<th><strong>Consumers</strong></th>
<th>Does this post contain images of consumers? Are these consumers young? This is defined as images of people who appear to be under 25 years of age.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>User generated content</strong></td>
<td>Is the post user generated content which has been shared by the brand on its page (this does not include content shared by the followers).</td>
</tr>
<tr>
<td><strong>Physical activity</strong></td>
<td>Does the post portray physical activity being undertaken? For example there images of people playing sport.</td>
</tr>
<tr>
<td><strong>Accessory</strong></td>
<td>Posts which associate products as an everyday accessory. For example an image of a handbag with a wallet, sunglasses, and a SSB. What nature is this association? I.e. Fashion accessory, accessory to sport..</td>
</tr>
</tbody>
</table>

**Themes**

<table>
<thead>
<tr>
<th><strong>Code</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personality</strong></td>
<td>Posts where a brand acts like a person by creating a distinctive cultural identity of sense of taste. This is differentiating whether the brand is acting like a brand (i.e. purely to promote their brand) or like a person (i.e. posting just because such as to be humorous or useful or to associate themselves with enjoying cultural activities etc.)</td>
</tr>
<tr>
<td><strong>Popular Culture</strong></td>
<td>Posts where brands craft a personality by displaying a sense of taste in music, sport, film/television programs or other pop culture. This includes associations with events, sharing popular media such as a music clip, and the presence or mention of well-known person such as a celebrity or sporting star.</td>
</tr>
</tbody>
</table>
References


57. O'Leary Z. The essential guide to doing your research project. 2nd ed. London: SAGE; 2014.


