“On premise alcohol consumption: A stakeholder perspective in social marketing”

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Abstract

Excessive alcohol consumption is a common practice in licensed premises (Fortin, Belanger, & Moulin, 2015) and is a global problem (Graham et al., 2011). Excessive alcohol consumption poses threats to both individuals and society (Laslett et al., 2010; WHO, 2011a). Different approaches have been taken to minimise harm caused by alcohol, for example law enforcement (Wechsler, Lee, Nelson, & Lee, 2003), education (Clark, Ringwalt, Shamblen, & Hanley, 2011), and social marketing (Kubacki, Rundle-Thiele, Pang, & Buyucek, 2015).

Social marketing is a behaviour change approach, and the use of social marketing benchmarks has been suggested as one means to highlight the essential characteristics of social marketing (Andreasen, 2002). One of the benchmarks is consumer orientation, which requires deep understanding of the target audience, and typically occurs through formative research (Kubacki & Rundle-Thiele, 2017). While mixed methods are recommended to obtain deep insights, application of mixed method research designs in the formative research phase in social marketing remains limited (Truong & Dang, 2017). Given that interventions aiming to minimise harm from alcohol consumption are often based on data gathered from self-reported studies (Rundle-Thiele, Russell-Bennett, Leo, & Dietrich, 2013b), objective measures to determine alcohol consumption are needed. Considering that intervention strategy follows formative research, the importance of drawing a true and comprehensive picture of the problem is essential. Therefore, studies that attempt to understand alcohol behaviour from multiple angles are warranted to widen our understanding of excessive alcohol consumption in licensed premises.

The social marketing benchmark of theory in the design, implementation and evaluation of social marketing interventions is recommended. However, reports of scant usage of theories are evident in the social marketing literature (Truong, 2014; Truong & Dang, 2017). Moreover, existing interventions are dominated by individual-focused theories (Luca & Suggs, 2013; Truong, 2014; Truong & Dang, 2017). Social marketing has evolved from a sole focus on individuals (Luca & Suggs, 2013; Truong, 2014) to the adoption of a broader systems view taking the meso and macro level approaches into account in intervention design and planning (Hoek & Jones, 2011). A wider systems view necessarily involves different forms of partnerships with various stakeholders (Lefebvre, 2012, 2013). Therefore, individual-focused theories may not provide a sufficient guide for social marketing intervention planning and design. The involvement of multiple stakeholders in social marketing interventions requires alternative theoretical lenses to
guide intervention planning and design. Although discussions around relational paradigms are evident in the social marketing literature (Domegan, Collins, Stead, McHugh, & Hughes, 2013; Hastings, 2003; Lefebvre, 2012), and considering that management approaches are focused on managing limited human, financial and natural resources; a management approach that guides social marketers to manage limited resources may be a viable alternative. Yet, there are only a handful of reports on the application of management theories in social marketing (Domegan et al., 2016).

This thesis constitutes an initial attempt to respond to calls made by several scholars (see for example Hastings, Stead, & MacKintosh, 2002; Lefebvre, 2012; Rundle-Thiele, 2013) to apply formative research to understand drinking behaviour in licensed premises through different stakeholder lenses. Further, this thesis attempts to understand and theoretically discuss whether a stakeholder-driven approach may offer a suitable approach to social marketing campaign development, implementation and evaluation. This project was designed as an integrated program of formative research with three distinct studies: a consumer survey, observations of a licensed premise, and a systematic literature review of stakeholder involvement in social marketing interventions. The results of the studies will inform a future social marketing intervention that aims to moderate alcohol drinking in licensed premises.

In study 1a, alcohol consumption at the individual level in licensed premises was investigated via a self-report online survey. Six hundred and fifty individuals were surveyed in February 2015. Previously validated scales were used to investigate moderate drinking practices (MDPs), alcohol expectancies (AEs), and drinking refusal self-efficacy (DRSE) and to explore the interaction between those variables. The Structural Equation Modelling (SEM) results revealed that AEs, DRSE and MDPs interact with each other. Further, DRSE has significant impacts on MDPs.

In study 1b, alcohol consumption and factors that impact alcohol consumption in licensed premises at the meso level were investigated via covert observations in natural settings. An unobtrusive systematic observational study of 632 licensed premise patrons was conducted during May 2015. Convergence between genders was observed with females drinking as much and as long as males. Nearly 58% of patrons drank two or more servings, exceeding daily recommended amounts. Social factors such as group size were more influential on drinking than individual factors such as gender and smoking status. Serving practices such as straws and buying drinks in rounds influenced the quantity of alcohol consumed.
In study 2, a systematic literature review was undertaken to identify social marketing interventions. A systematic literature review was conducted to identify stakeholders involved in social marketing interventions published between January 2000 and May 2015 in peer-reviewed academic journals whose reported aim was to reduce harm from excessive alcohol consumption. The number of stakeholders was greater in more complex community settings, when compared to narrower settings such as universities and schools. A restricted stakeholder focus was observed for evaluation.

Social marketing literature recognises that inclusion of stakeholders may enhance effectiveness of social marketing interventions (Domegan et al., 2016; Hastings & Domegan, 2013; Lefebvre, 2006, 2012; Zainuddin, Previte, & Russell-Bennett, 2011). Yet, the inclusion of stakeholders poses its own challenges, such as divergent agendas (Andreasen, 2002; Domegan et al., 2013) and priorities (Hastings et al., 2002; Lefebvre, 2006), conflicting interests (Hoek & Jones, 2011), and different perspectives on how to manage the relationships between stakeholders and minimise problems (Bryant et al., 2014; Kelly & Stanley, 2014; Vinci et al., 2010). The stakeholder approach is a management approach (Freeman, 1984) reported to be effective in commercial business settings (Bryson, 2004), and given that social marketing is, by nature, driven by commercial marketing techniques, application of a theory driven from a business perspective may bring similar benefits to the social marketing domain.

Stakeholder theory may offer a framework to guide social marketing interventions from the formative research stage, offering an operational tool for the systematic inclusion of selected stakeholders in formative research. There is limited evidence of inclusion of stakeholders in formative research to date (Buyucek, Kubacki, Rundle-Thiele, & Pang, 2016). In addition, stakeholder theory can be helpful as a managerial lens in organising and deploying human, financial and time resources in the most effective way. Applying a management approach to intervention design, planning, implementation and evaluation may assist to ensure the continuity of successive interventions to achieve more sustainable outcomes in the long term.

The thesis contributes to practice, methodology, and theory in the social marketing literature. Practical contributions include providing formative insights into alcohol drinking on premise through the initial application of a stakeholder perspective, and presenting a current review of social marketing alcohol interventions to arrive at an understanding of how social marketing has, to date, been used to effect behavioural change in problem alcohol drinking. Methodological contributions include the reporting
of a structured observational protocol that can be used to explore alcohol consumption behaviour in public settings. Theoretical contributions include extending theory use in social marketing beyond individual-focused theories to a management-focused stakeholder theory. This thesis demonstrates that stakeholder theory can be employed to understand the views of stakeholders involved more widely in delivering behaviour change interventions in complex social contexts. For the first time in the social marketing literature, this thesis presents an analysis of stakeholder involvement in social marketing interventions aiming to minimise harm from alcohol consumption.
Statement of original authorship

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

28 February 2017

Nuray Buyucek
Acknowledgements

“This thesis is dedicated to my mum, my dad and my sister, who will never ever see, but feel and share my success...”

I do not know how I can thank whoever has provided me support during my journey of three years.

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Besides Prof. Rundle-Thiele, I would like to thank the rest of my thesis committee: Associate Prof. Krzysztof Kubacki and Dr Kathy Knox for their insightful comments and encouragement, but also for the hard questions which encouraged me to widen my research from various perspectives.

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Oh! It is very emotional…
PhD specific publications

Accepted journal articles


Submitted journal articles


(CHAPTER 5) Buyucek, N., Knox, K., Rundle-Thiele, S. (Second review- Revised and resubmitted) Observing alcohol drinking in licensed premises: A formative social marketing study (Journal of Social Marketing).

Conference proceedings


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<tr>
<td>AASM</td>
<td>Australian Association of Social Marketing</td>
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<td>ADF</td>
<td>Alcohol and Drug Foundation</td>
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<td>AEs</td>
<td>Alcohol Expectancies</td>
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<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
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<td>ANPHA</td>
<td>Australian National Preventative Health Agency</td>
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<tr>
<td>CBPM</td>
<td>Community Based Prevention Marketing</td>
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<tr>
<td>CBSM</td>
<td>Community Based Social Marketing</td>
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<tr>
<td>CFA</td>
<td>Confirmatory Factor Analysis</td>
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<td>DEP</td>
<td>Dinking Expectancy Profile</td>
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<td>DRSE</td>
<td>Drinking Refusal Self-Efficacy</td>
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<td>ESMA</td>
<td>European Social Marketing Association</td>
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<tr>
<td>FARE</td>
<td>Foundation of Alcohol Research and Education</td>
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<td>ISMA</td>
<td>International Social Marketing Association</td>
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<td>MDPs</td>
<td>Moderate Drinking Practices</td>
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<td>NDSHS</td>
<td>National Drug Strategy Household Survey</td>
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<td>NGOs</td>
<td>Non-Government Organisations</td>
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<td>NPHT</td>
<td>National Preventative Health Taskforce</td>
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<td>NSMC</td>
<td>UK National Social Marketing Centre</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Cooperation and Development</td>
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<td>RQ</td>
<td>Research Question</td>
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<tr>
<td>SEM</td>
<td>Structural Equation Modelling</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for the Social Sciences</td>
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<tr>
<td>TMA</td>
<td>Total Market Approach</td>
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<tr>
<td>TPB</td>
<td>Theory of Planned Behaviour</td>
</tr>
<tr>
<td>TRA</td>
<td>Theory of Reasoned Action</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
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<tr>
<td>VicHealth</td>
<td>The Victorian Health Promotion Foundation</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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Acknowledgement of papers (Chapter 4, 5 and 6) included in this thesis

ALL PAPERS INCLUDED ARE CO-AUTHORED

Section 9.1 of the Griffith University Code for the Responsible Conduct of Research (“Criteria for Authorship”), in accordance with Section 5 of the Australian Code for the Responsible Conduct of Research, states:

To be named as an author, a researcher must have made a substantial scholarly contribution to the creative or scholarly work that constitutes the research output, and be able to take public responsibility for at least that part of the work they contributed. Attribution of authorship depends to some extent on the discipline and publisher policies, but in all cases, authorship must be based on substantial contributions in a combination of one or more of:

- conception and design of the research project,
- analysis and interpretation of research data,
- drafting or making significant parts of the creative or scholarly work or critically revising it so as to contribute significantly to the final output.

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- accept or decline offers of authorship promptly in writing,
- include in the list of authors only those who have accepted authorship,
- appoint one author to be the executive author to record authorship and manage correspondence about the work with the publisher and other interested parties,
- acknowledge all those who have contributed to the research, facilities or materials but who do not qualify as authors, such as research assistants, technical staff, and advisors on cultural or community knowledge. Obtain written consent to name individuals.
Included in this thesis are papers in Chapters 4, 5, and 6 which are co-authored with other researchers. My contribution to each co-authored paper is outlined at the front of the relevant chapter. The bibliographic details (if published or accepted for publication)/status (if prepared or submitted for publication) for these papers, including all authors, are:

**Chapter 4: In review**

**Buyucek, N., Knox, K., Rundle-Thiele, S. (In review- Revised and resubmitted)** A solution based approach: An empirical examination of factors influencing moderate drinking practices (Social Marketing Quarterly).

**Chapter 5: In review**

**Buyucek, N., Knox, K., Rundle-Thiele, S. (Second review- Revised and resubmitted)** Observing alcohol drinking in licensed premises: A formative social marketing study (Journal of Social Marketing).

**Chapter 6: Accepted for publication 6 November 2015**


28 February 2017

Nuray Buyucek Principal Supervisor Prof. Sharyn Rundle-Thiele
Chapter 1 – Introduction

This chapter provides an overview of the thesis as follows: background of the study, research context, research purpose and questions, overview of the research design, a brief overview of contributions to theory, practice and methodology, and an overview of the of how the balance of the thesis is structured. This chapter ends with a summary.

1.1 Background

Globally, about two billion people consume alcohol (WHO, 2014) and worldwide pure alcohol consumption per person is estimated to be 6.2 litres per year for people aged 15 years and older (WHO, 2014). The highest overall consumption of alcohol is found in Europe, and in high income countries including Australia (WHO, 2014). Alcohol can be consumed for celebratory purposes or socialising (Leverton & Evans, 2008). Although the majority of people drink alcohol responsibly (WHO, 2014), consuming alcohol in excessive amounts is associated with alcohol-induced harm (WHO, 2007). In Australia, according to the Alcohol and Drug Foundation (ADF), around 16% of people aged 12 years or older reported consuming 11 or more standard drinks on a single occasion in the past 12 months (ADF, 2017). Excessive alcohol consumption does not only cause harm at the individual level (WHO, 2014), it also harms others such as partners and other family members (Manning, Smith, & Mazerolle, 2013), and can contribute negatively to society as a whole (Laslett et al., 2010; WHO, 2007, 2011a). The other risk associated with excessive alcohol drinking is its strong association with crime (Loxley et al., 2005). For instance, the alcohol-crime attribution rate was 41% for prison detainees in Australia, who were charged over anti-social behaviours such as drink driving and violence (Payne & Gaffney, 2012). Given the high social costs of excessive alcohol consumption, a reduction in risky drinking leading to alcohol-related harm must remain as a key priority to improve societal wellbeing (NPHT, 2009).

Many strategies, i.e. demand, supply and harm reduction (Australian Government, 2015), have been implemented by behaviour change agents and governments to minimise harm from excessive alcohol consumption (Aalto, Pekuri, & Seppä, 2003; Clapp et al., 2005; Diamond et al., 2009; Glassman, Dodd, Miller, & Braun, 2010; Glider, Midyett, Mills-Novoa, Johannessen, & Collins, 2001; Kubacki, Siemieniako, & Rundle-Thiele, 2011), such as law (i.e. age restrictions and limiting trading hours) (Anderson, Chisholm, & Fuhr, 2009; Gruenewald et al., 2015; Miller, Curtis, Chikritzhs, Allsop, & Toombourou, 2016), education (Rundle-Thiele et al., 2013b), and behaviour change interventions
including social marketing (DiGuiseppi et al., 2014; Rothschild, Mastin, & Miller, 2006). Social marketing differs from all listed approaches given its consumer orientation which focuses on understanding the target group (NSMC, 2008) prior to the design of the intervention.

Social marketing is a behaviour change approach (Andreasen, 2002) that has been applied to solve a broad array of social problems for the benefit of individuals, important others surrounding the affected individual and, more broadly, to benefit societies (Hopwood & Merritt, 2011). Social marketing interventions have been employed in different and usually complex contexts and intervention settings including university campuses (Glassman et al., 2010), homeless shelters (James & Skinner, 2009), festivals (Huhman, Bauman, & Bowles, 2008), and in high schools (Rundle-Thiele et al., 2013b) to tackle a range of social issues such as healthy eating (Carins & Rundle-Thiele, 2014), alcohol consumption (Janssen, Mathijssen, Bon-Martens, Oers, & Garretsen, 2013), bicycle helmet use (Ludwig, Buchholz, & Clarke, 2005) and encouraging breast-feeding (Lowry, Austin, & Patterson, 2011), among many others.

Social marketing interventions are reported to be effective (Gordon, McDermott, Stead, & Angus, 2006; Kubacki et al., 2015) in the area of alcohol with examples of interventions achieving change in alcohol-related attitudes, intentions and behaviours (Rundle-Thiele et al., 2013b; Thompson, Heley, Oster-Aaland, Stastny, & Crawford, 2013). Further, social marketing has been accepted as a national strategy to address health problems in Australia (NPHT, 2009) including alcohol-related harm.

Benchmark criteria and a set of guiding principles have been established to distinguish social marketing from other behaviour change disciplines including public health and education (for examples see Andreasen, 2002; Lefebvre & Flora, 1988; Robinson-Maynard, Meaton, & Lowry, 2013). The criteria are explained in more detail in Chapter 2, Section 2.2.2. One important benchmark criteria in social marketing is application of theory (NSMC, 2008). The use of theory guides social marketers to explore determinants of behaviour and apply those determinants to design an intervention (Luca & Suggs, 2013). Application of theory in social marketing interventions may increase the likelihood of positive outcomes (Lefebvre, 2013; Luca & Suggs, 2013). Nonetheless, the majority of social marketing interventions lack a theoretical basis (Truong, 2014; Truong & Dang, 2017). Moreover, social marketing interventions to date that report using theory are dominated by individual-focused theories originating from sociology and psychology (Luca & Suggs, 2013; Truong, 2014; Truong & Dang, 2017; Wymer, 2011). Such
downstream-level theories (Truong, 2014; Truong & Dang, 2017) include Theory of Reasoned Action (TRA) (O’Hara, Harker, Raciti, & Harker, 2007; Scheier & Grenard, 2010), Theory of Planned Behaviour (TPB) (French & Cooke, 2012), Social Cognitive Theory (Perry et al., 2000), and the Health Belief Model (Julinawati, Cawley, Domegan, Brenner, & Rowan, 2013). Although the majority of social marketing interventions have an individual focus (Truong, 2014), there are calls in the social marketing literature to move the focal point upstream (Hoek & Jones, 2011; Lefebvre, 2011b; Wymer, 2011), where policy and environmental factors that shape the behaviour can be impacted. Taken altogether, prior literature indicates that to achieve behavioural change, both the individual and the external (built and social) environment (Domegan et al., 2013; Hastings, 2003) require consideration. Therefore, to tackle behaviour change from micro (i.e. individual), meso (i.e. community) and macro (i.e. national level) perspectives (Hoek & Jones, 2011), multiple parties need to be involved. Given that behaviour is shaped and influenced by environmental factors (Carins, Rundle-Thiele, & Fidock, 2016), creating supportive environments is vital to sustaining long-term changes targeting the individuals who need to change. Change will only occur when all parties who shape the environment surrounding the targeted individual(s) participate in the process of behaviour change.

It is important to acknowledge that social marketing interventions take place in complex settings which may involve multiple stakeholders (Buyucek et al., 2016). Moreover, for complex or ‘wicked’ problems that entail multiple parties (Kennedy, 2015), understanding must be sought on micro through macro levels to comprehend not only how an individual may be induced to change behaviours, but also how the important others and the environment surrounding the individual support or deny the opportunity and/or ability to change. Therefore, theories that consider environmental factors, multiple actors and multiple levels in behaviour change warrant consideration. Examples of theories that take the external (social and built) surroundings into account include Social Norms Theory (Kelly & Stanley, 2014; Vinci et al., 2010), Community-Based Prevention Marketing (CBPM) (Bryant et al., 2014), and the Total Market Approach (TMA) (Lefebvre, 2012). Mixed results of their application in social marketing have been reported (Angus et al., 2013; Athey, Suckling, Tod, Walters, & Rogers, 2011; Brennan, Previte, & Fry, 2016; Kelly & Stanley, 2014). The limited use of theories with a wide environmental lens extending beyond the targeted individual suggests that the application of alternative theoretical approaches to solving complex, wicked problems, such as alcohol related harm, is warranted.
To achieve behaviour change, involving the parties who have a stake in the consequences of that change in the design, planning, implementation and evaluation of interventions aimed at a problem is a process that needs to be managed effectively. Applying management theories to social marketing interventions, where the discipline itself is driven by commercial marketing theories and tools, may offer a viable alternative (Peattie & Peattie, 2003), and is indicated to be beneficial (Wymer, 2011). A review of the literature suggests that there is an opportunity to extend the application of management theories in social marketing intervention planning and design. Management theory used in the social marketing context may offer guidance to social marketers in the management of the various parties and relationships that the delivery of social marketing interventions requires (Buyucek et al., 2016; Domegan et al., 2016; French & Gordon, 2015; Lefebvre, 2012). The debate surrounding relational approaches in social marketing is articulated further in Chapter 2, Section 2.3. Subsequently, the current research seeks to investigate different parties’ involvement in behaviour change efforts and proposes an alternate theoretical lens which may benefit social marketers, by helping them to more effectively understand the views of multiple stakeholders who are directly impacted by these efforts and, consequently, to manage stakeholder involvement in social marketing interventions.

Social marketing interventions typically involve three steps: formative research, implementation, and evaluation (Andreasen, 2002). There are typically several stakeholders involved in the formative research process and implementation stages of social marketing interventions (Buyucek et al., 2016). There is, however, limited understanding of the need, and limited effort to include stakeholders in social marketing interventions in a systematic manner. In the absence of a guiding managerial theory social marketers choose to include stakeholders according to “lay knowledge and assumptions” (Truong, 2014, p. 26). However, the stakeholder theory (Freeman, 1984) may offer a framework for identifying, and thus ensuring, the inclusion of important parties in social marketing interventions. For example, to prevent alcohol-related harm, police enforcement is crucial (Quilter, McNamara, Seear, & Room, 2016), as is maintaining best practice in alcohol service in licensed premises (Graham, Jelley, & Purcell, 2005), and in management of licensed premises (McFadden, Young, & Markham, 2015). When the different parties who shape drinking environments have different agendas, it is less likely that desired outcomes from interventions will be achieved (Domegan et al., 2013). Given that social marketers are limited by financial, human and time resources (Temple, Long, Wayman, Taubenheim, & Patterson, 2008), enlisting a range of relevant stakeholders may
offer a means to increase intervention effectiveness by encompassing not only the individual but also the surrounding social and built environments. Understanding, inclusion and management of related stakeholders may provide better outcomes and, in turn, assist to establish and sustain desired behaviour in the long term. The benefits of understanding and including stakeholders will be discussed further in Chapter 2, Section 2.5.

Another distinguishing characteristic of social marketing is consumer orientation and insight (NSMC, 2008), which highlights the importance of understanding the target groups that are the focal object of social marketing interventions. Thus, formative research is crucial to social marketing interventions. Formative research in social marketing refers to techniques that are used to understand an audience (Hopwood & Merritt, 2011), and issues fully (Kubacki & Rundle-Thiele, 2017), to inform program planning. There are a variety of formative research methods used in intervention planning, but typically these are dominated by self-reporting techniques such as focus groups (Eckert, Melancon, & James, 2010; Glassman et al., 2010; Glik, Prelip, Myerson, & Eilers, 2008; Rivara, Boisvert, Relyea-Chew, & Gomez, 2011) and surveys (Gomberg, Shari Kessel, & DeJong, 2001; Mattern & Neighbors, 2004; Neighbors, Lee, Lewis, Fossos, & Larimer, 2007). Surveys are often used alone (Thompson et al., 2013) and less often, are combined with other formative methods, such as focus groups (Rivara et al., 2011), or observations (Rundle-Thiele, 2009). Occasionally surveys have been combined with interviews and focus groups (Bellows, Anderson, Gould, & Auld, 2008), all of which are self-report methods restricting understanding to what people know and recall (Carins et al., 2016).

Using mixed methods affords a deeper understanding of the problem (Carins et al., 2016) and provides a detailed picture of its dimensions (Denscombe, 2014) which is crucial in social marketing interventions. Consequently, in the social marketing literature, where limited reporting of mixed methods design is evident (Douglas, 2008), calls are being made to apply mixed methods for enhanced insight into the determinants of behaviours (Truong & Dang, 2017).

However, many studies employ self-reported measures in formative research and as a result, many outcome evaluations rely on self-reporting, which may limit understanding of the real impacts of interventions. Self-reported measures have known shortcomings of
social desirability bias (Bennett, Kerrigan, O'Reilly, Lee, & Sargeant, 2011), memory, and accuracy of recall (Carins, 2017). It is worth highlighting that eating and drinking behaviour is quite significantly shaped by environmental factors (Carins et al., 2016) such that when behaviour and behaviour change is analysed through self-reported measures, underlying factors that impact drinking behaviour might be missed (Rundle-Thiele, 2009).

Nonetheless, when observations are used in conjunction with other studies in a mixed method design, a better picture of the behaviour can be drawn and environmental factors that influence drinking behaviour might be investigated. For example, when observations have been used in conjunction with surveys to understand the difference between observed and self-reported behaviour, discrepancies are evident (Rundle-Thiele, 2009). Since alcohol consumption data is predominantly collected by the self-reporting method, gathering data by observing actual behaviour in natural settings offers a valid alternative in seeking accuracy of the determinants of behaviour, and effectiveness in interventions aimed to reduce alcohol related problems. While observations are used widely to understand the reasons for violence in licensed premises (Graham & Wells, 2001, 2003), there are few studies reporting observations of drinkers in natural settings (where the actual drinking behaviour occurs, i.e. pubs and bars) to understand determining factors of drinking behaviour (Knibbe, Van De Goor, & Drop, 1993; Rundle-Thiele, 2009). Therefore, the current study employs a mixed method design, which includes three studies (survey, observations, and systematic literature review), to obtain a comprehensive picture of drinking behaviour and to gain insights into the extent of stakeholder involvement in natural drinking settings to inform design and planning of social marketing interventions. Details of these methods are given in Chapter 3, Section 3.3.

1.2 Research context

Drinking spaces may be divided into two main categories: the private/domestic and public domains (Siemieniako, Rundle-Thiele, & Kubacki, 2010; WHO, 2011a). Private drinking behaviour may occur in domestic settings such as private parties in a person’s home, in friends’, partners’ or relatives’ homes, while public drinking may take place in public spaces such as pubs, bars (Siemieniako et al., 2010), restaurants and other licensed premises, as well as at festivals.

More than three-quarters (75%) of Australians reported drinking alcohol in domestic settings such as their own home or in a friend’s house, while 23% reported consuming
alcohol in licensed premises including pubs (15%) and restaurants (8%) (FARE, 2016). Although domestic settings are the most common sites for drinking (AIHW, 2008; Kairouz & Greenfield, 2007), households, as private spaces, present difficulties for behaviour change approaches which aim to regulate and/or intervene. Moreover, bars, pubs and taverns are linked to high rates of alcohol consumption (Fortin et al., 2015) and, as public spaces, are settings that can be regulated. In other words, public drinking places are predominantly where excessive drinking occurs (Dietze, Livingston, Callinan, & Room, 2014), and so offer a likely avenue for delivering harm minimisation strategies.

While social marketing has been applied in different contexts, including schools (Rundle-Thiele et al., 2013b), university campuses (Thompson et al., 2013), community (Rivara et al., 2011) and medical centres (Payne et al., 2011), there is limited evidence in the literature that social marketing has been applied in a licensed premise context (Angus et al., 2013; Gordon et al., 2006). Therefore, an opportunity to implement social marketing strategies in licensed premises is apparent.

In summary, the above review of the relevant literature that includes consideration of the theoretical approaches used in social marketing, along with an understanding of formative research methods that have frequently been applied, suggests that there are several important gaps in the social marketing literature:

1. Limited application of theory in social marketing interventions;
2. A lack of management theories used in social marketing; and
3. Limited application of mixed method designs and in particular, application of observation studies in social marketing interventions.

1.3 Research purpose and research questions
Social marketing has been used to impact alcohol drinking behaviours by including different stakeholders (Buyucek et al., 2016; Truong & Dang, 2017) in intervention planning, design, implementation and evaluation. However, mixed results have been observed (Buyucek et al., 2016) and excessive alcohol consumption continues to pose a threat to individuals (i.e. health consequences) (WHO, 2014), and society as a whole (i.e. alcohol-related violence) (FARE, 2015), suggesting more research is warranted.

The purpose of the current study is:

To understand drinking behaviour in licensed premises by extending understanding beyond the individuals targeted for change. This research
attempts to understand and theoretically discuss whether a stakeholder-driven approach may offer an alternative to social marketing campaign development, implementation and evaluation.

Understanding the target audience – the individuals targeted for change – is one of the essential steps in social marketing interventions (Kubacki & Rundle-Thiele, 2017). Investigating the underlying determinants of drinking behaviour may provide important insights into drinking behaviour. Understanding consumers’ expectations of alcohol consumption, which includes perceiving how confident consumers are in refusing a drink, and the strategies applied by the target audience to moderate their drinking (Baldwin, Oei, & Young, 1993) (solution focus to harmful drinking practices rather than focusing on problem- binge drinking), may hold the clues to developing an effective intervention. Subsequently, the following research question is proposed:

**RQ1: Which factors impact moderate drinking practices?**

Data related to alcohol consumption is dominated by self-reported surveys (Aalto et al., 2003; Baldwin et al., 1993; Clapp et al., 2005; Connor, George, Gullo, Kelly, & Young, 2011; Lee, Oei, Greeley, & Baglioni Jr, 2003; Rundle-Thiele et al., 2013b), which limits understanding due to known methodological limitations such as reporting bias caused by memory impairment (Ryabinin, 1998). Understanding consumers’ alcohol drinking behaviour and the environmental determinants in a real life setting where the drinking behaviour occurs using the observational method can overcome known biases emanating from self-report studies, and can give a wider picture of alcohol consumption that includes environmental stimulants. Therefore, the following research question is proposed:

**RQ2: What are patrons’ drinking patterns and influential factors of alcohol consumption in licensed premises?**

While surveys can assist to determine the underlying reasons for drinking behaviour, investigation of what is consumed, how it is consumed, and when it is consumed can be gained through an observation study. By combining a mixed method research design to answer research questions 1 and 2, comprehensive insight into drinking behaviour and understanding of factors affecting alcohol consumption can be gained.

Consumer insight is a decisive component of social marketing (NSMC, 2008). However, attempting to understand behaviour by focusing solely on one group is limiting, since
behaviour is shaped by environmental stimulants, both social and built. For instance, glass shapes in bars (Attwood, Scott-Samuel, Stothart, & Munafò, 2012), or management practices in licensed premises (Graham, Bernards, Osgood, & Wells, 2006) can impact the alcohol consumption behaviour of licensed premise customers. Further, behaviour change occurs when it is supported by environmental determinants (Carins & Rundle-Thiele, 2014). The environment is shaped by different stakeholders (Lefebvre, 2013), some of which are directly affected by or have potential direct inputs to any behavioural change effort. The extent of stakeholder involvement in social marketing interventions targeting problem alcohol use has not been systematically explored prior to the current study. Therefore, the following research question is proposed:

RQ3: Which stakeholders were involved in social marketing interventions targeting problem alcohol drinking?

1.4 Research design

To address the research questions, this thesis employs a mixed method design in a two-stage process of formative research. A program of three studies was conducted, comprising survey, covert observation, and systematic literature review, as outlined in Table 1.
### Table 1: Research design

<table>
<thead>
<tr>
<th>Study</th>
<th>Research Question</th>
<th>Sample</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 1</td>
<td>Patrons of licensed premises</td>
<td>RQ1 Patrons of licensed premises</td>
<td>Survey</td>
</tr>
<tr>
<td>Patrons of licensed premises</td>
<td>RQ2 Patrons of licensed premises</td>
<td>Convenience sampling</td>
<td>Observations</td>
</tr>
<tr>
<td>Study 2</td>
<td>RQ3 Self-claimed social marketing interventions published in peer-reviewed journals from 2000 to May 2015.</td>
<td>Systematic literature review</td>
<td></td>
</tr>
<tr>
<td>Systematic Literature Review (Buyucek et al. 2016)</td>
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</table>

The purpose of study 1a and study 1b is to provide a comprehensive understanding of the drinking behaviour of consumers in licensed venues, extending understanding beyond the individual to the external environmental factors surrounding the individual via observations of alcohol drinking in licensed premises. A mixed method design including the complementary research methods of covert observations and surveys was used to gain deeper insights. The common aim of study 1a and study 1b is to understand the problem of excessive drinking from a variety of angles and, thereby, to answer RQ1 and RQ2.

**Study 1a** is an online survey of 650 consumers who were surveyed to gain insights into their AEs, DRSE, and the practices they reportedly used to moderate their drinking. Self-reported behaviour was the study’s focal point and factors impacting MDPs were examined. SEM was used to explore relationships between MDPs, AEs and DRSE.

**Study 1b** is an observation study in which 632 licensed premise customers were observed over 17 consecutive days in a popular licensed premise in an entertainment district in South East Queensland, Australia. Drinking patterns, drinking duration, drinking quantity and time spent drinking on premise were observed via a structured observation instrument. The aim of the study was to develop an understanding of alcohol drinking and its determinants in a natural setting. Multiple regression analysis was conducted to investigate predictors of volume of alcohol consumed, including social factors (group size), serving practices (straw) and individual demographic factors (gender and smoking status) to extend understanding beyond the targeted individual to the wider environment.

**Study 2** is a systematic literature review that was undertaken to ascertain the extent of stakeholder involvement in key stages of social marketing interventions, namely the...
formative research, implementation, and evaluation stages to inform future research efforts adopting stakeholder theory. A total of 23 self-claimed social marketing interventions published in peer-reviewed journals from January 2000 to May 2015 reporting aims of reducing harm caused by alcohol were identified and examined.

1.5 Overview of contributions to theory, practice and methodology

There are calls in the social marketing literature to consider different stakeholders’ views to increase the effectiveness of interventions (Lefebvre, 2009; Singer & Kayson, 2004; Thomas, 2008). Efforts that aim to extend understanding beyond the individuals targeted for change may assist to deliver behavioural change programs that are scalable and sustainable over time. Further, a lack of theory use in social marketing interventions is evident (Truong, 2014), which is concerning given that interventions guided by theory are reported to be more successful in the long term (Stead, Gordon, Angus, & McDermott, 2007). The inclusion and consideration of different stakeholders may give social marketers further insights by assisting them to understand not only how an individual may be induced (motivated) to change, but also how the important others and the environment surrounding the individual may support or discourage individuals’ opportunities and/or abilities to change. This thesis will contribute to methodology, practice, and theory in the social marketing discipline in seven ways, as summarised below.

Methodological contributions are made by:

1. Delivering a structured observational method that can be used to explore alcohol consumption behaviour in public settings, and
2. Analysing drinking duration extending understanding beyond quantity consumed.

Contributions to theory and practice are made by:

3. Providing formative insights into alcohol drinking on premise through initial application of a stakeholder perspective,
4. Presenting a current review of social marketing alcohol interventions to deliver an understanding of how social marketing has been used to date to deliver behavioural change in problem alcohol drinking,
5. Analysing stakeholder involvement in social marketing interventions aiming to minimise harm from alcohol consumption for the first time in the social marketing literature,
6. Extending theory use in social marketing beyond individual-focused theories to a management-focused theory that can be employed to understand the views of stakeholders involved more widely in a complex, wicked system, and

7. Integrating a management approach that may be used to manage social marketing interventions.

Each of these contributions will be discussed in detail in the final chapter, Chapter 7 Discussion Section 7.4.

1.6 Structure of thesis

The thesis contains seven chapters and is constructed as a series of published and unpublished research papers. The research questions are addressed in separate studies (Chapters 4, 5, 6), each representing a specific focus presented in academic journal article format. Figure 1 summarises the thesis structure.
## Figure 1: Thesis structure

<table>
<thead>
<tr>
<th>Chapter 1: Introduction</th>
<th>Background, research context overview, purpose of research and design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 2: Literature review</td>
<td>Current literature review in related areas, conceptual development and summary of research questions</td>
</tr>
<tr>
<td>Chapter 3: Research design and methodology</td>
<td>Description of research paradigm, methodology and design</td>
</tr>
<tr>
<td>Chapter 4: Study 1a: Online survey</td>
<td><strong>Buyucek, N., Knox, K., Rundle-Thiele, S.</strong> <em>(In review-revised and resubmitted)</em> A solution based approach: An empirical examination of factors influencing moderate drinking practices <em>(Social Marketing Quarterly)</em>.</td>
</tr>
</tbody>
</table>
| Chapter 5: Study 1b | **Observation of patrons in licensed premises**  
**Buyucek, N., Knox, K., Rundle-Thiele, S.** *(2nd round revisions submitted)* Observing alcohol drinking in licensed premises: A formative social marketing study *(Journal of Social Marketing)*. |
| Chapter 6: Study 2 | **Systematic literature review**  
| Chapter 7: Discussion and conclusion | Discussion, contributions, limitations, future research directions, and conclusion |
1.7 Summary

Behaviour change is a multifaceted process that requires the involvement of different parties which may or may not support an individual to perform the desired behaviour. Different approaches to changing behaviours have been implemented (Anderson et al., 2009; Gallivan, Lising, Ammary, & Greenberg, 2007; Gruenewald et al., 2015), of which one is social marketing (DiGuiseppi et al., 2014). Social marketing is a behaviour change approach that has been applied to different social and health issues such as alcohol consumption (Rundle-Thiele et al., 2013b), encouraging breast-feeding (Lowry et al., 2011) and healthy eating (Carins & Rundle-Thiele, 2014) in various contexts including schools (Rundle-Thiele et al., 2013b), licensed premises (Rothschild et al., 2006), and university campuses (Glassman et al., 2010). While theory is recommended (NSMC, 2008) to guide intervention planning, implementation, and evaluation, the application of theory in social marketing interventions is scant (Truong, 2014). Further, where theories have been used, those focusing on the individual dominate (Truong, 2014).

Drinking spaces can be put into two categories – private (e.g. homes) and public (e.g. licenced premises). Of public spaces (Siemieniako et al., 2010), pubs and bars in particular are linked with excessive alcohol consumption, which is a global problem (WHO, 2007). In the public setting, alcohol consumption is impacted by several factors, for instance, servers (Graham et al., 2005), group size (Oostveen, Knibbe, & De Vries, 1996), and policy (Wilkinson, Livingston, & Room, 2016), suggesting that there are several actors shaping the drinking environment (Hoek & Jones, 2011). Stakeholder theory may provide a framework for managing those parties’ involvement in social marketing interventions. This chapter summarised the background of the study, research context and research purpose and set out the research questions; briefly outlined research design, contributions to practice, methodology and theory; and provided an overview of the structure of the thesis. Chapter 2 presents a narrative review of contemporary issues, focusing on social marketing and relational paradigms within the discipline.
Chapter 2 – Contemporary issues in social marketing and stakeholder theory

2.1 Overview
This chapter reviews the previous literature relevant to social marketing. A definition of social marketing begins the chapter, which includes a discussion of relational paradigms in social marketing and provides an overview of stakeholder theory and the potential benefits that its use may offer in social marketing interventions. The chapter concludes with a summary.

2.2 Social marketing
The following sections outline and discuss selected definitions of social marketing, social marketing benchmarks, and theoretical applications in social marketing interventions.

2.2.1 Definition of social marketing
Social marketing’s first formal definition was introduced by Kotler and Zaltman in 1971 as

“the design, implementation, and control of programs calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution, and marketing research” (Kotler & Zaltman, 1971, p. 5; emphasis added).

Kotler and Zaltman’s (1971) definition highlighted how marketing techniques and knowledge can be applied to social issues, and possibly suggested a focus on management with the suggestion of “control of programs”. As debate ensued, a major shift occurred in social marketing understanding that moved the focus away from the promotion of ideas targeting an individual to behaviour change that included a wider apprehension of the environment surrounding the individual. For example, Smith (1998) stated that social marketing is

“about social change, individual behaviour change and changing systems and structures to enable the behaviour to occur” (Smith, 1998, p. 17; emphasis added).

The highly respected scholar Alan Andreasen stated that the ultimate outcome of social marketing must be behavioural change (Andreasen, 1994). Andreasen’s definition is itself focused on outcomes, and delineates social marketing precisely as
“the adaptation of commercial marketing technologies to programs designed to influence the voluntary behaviour of target audiences to improve their personal welfare and that of the society of which they are a part” (Andreasen, 1994, p. 110; emphasis added).

Most descriptions after Andreasen’s (1994) definition highlighted behaviour change as the ultimate objective of social marketing (Andreasen, 2002; Gordon, 2011; Hoek & Jones, 2011; Kubacki, Rundle-Thiele, & Palmer, 2013; Lefebvre, 2001; Stead et al., 2007; Szmigin, Bengry-Howell, Griffin, Hackley, & Mistral, 2011; Wymer, 2011). The notion of “voluntary choice” has however been challenged by some scholars in recent times. Donovan (2011), for example, argued that the purchasing environment affects individuals and that social marketers seeking to change individual behaviour should also seek to control the environment to enable choices that are more beneficial to the individual, which consistently with Smith’s (1998) definition, indicates a wider environmental view. These views recognise that an individual may have neither the opportunity nor ability to voluntarily change their behaviour (in the individual/downstream focus) given that the environment surrounding the behaviour involves multiple stakeholders.

The first consensus definition of social marketing that was endorsed by several respected bodies and academics across the globe in October 2013 informs the current study.1 The definition was endorsed by the European Social Marketing Association (ESMA), the International Social Marketing Association (ISMA) and the Australian Association of Social Marketing (AASM), and states that

“Social Marketing seeks to develop and integrate marketing concepts with other approaches to influence behaviours that benefit individuals and communities for the greater social good. Social Marketing practice is guided by ethical principles. It seeks to integrate research, best practice, theory, audience and partnership insight, to inform the delivery of competition sensitive and segmented social change programmes that are effective, efficient, equitable and sustainable” (AASM, ISMA, & ESMA, 2013; emphasis added).

The consensus definition of social marketing represents another shift. The main insights that can be taken from the definition are its emphasis on partnerships and the integration

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1 The consensus definition is currently being reviewed with selected involvement of social marketing scholars globally.
of different marketing concepts with other approaches. While downstream interventions are focused on individuals, midstream interventions generally work at the community level, and broader-level marketing approaches involve attempts to coordinate and organise social marketing within and between down-, mid- and upstream levels. This definition moves the focus away from an individual, downstream view to a broader perspective that focuses on the macro environment (Wood, 2016) on the continuum of streams which requires down-, mid- and upstream level collaboration and an integrated approach to solving complex, wicked problems (Hoek & Jones, 2011). Therefore, a holistic approach that guides, informs, and promotes the involvement of all streams in social marketing interventions may lead to long-term planning and better outcomes. In the social marketing literature more recently, a holistic approach across the down-, mid- and upstream continuum (Hoek & Jones, 2011) has been proposed as one means to increase the likelihood of success of social marketing interventions over the longer term, which requires the involvement of multiple parties and management of their relationships.

2.2.2 Social marketing benchmarks

In order to promote an understanding of social marketing, social marketing benchmark criteria have been put forward by several scholars (Andreasen, 2002; Lefebvre & Flora, 1988; Walsh, Rudd, Moeykens, & Moloney, 1993). The UK’s National Social Marketing Centre’s eight benchmark criteria (NSMC, 2008) constitute one widely applied set which builds on Andreasen’s (2002) six benchmark criteria. According to the NSMC, the ultimate goal for any social marketer is (1) **behaviour change**. Formative research should guide intervention development, and aim to gather actionable (2) **insights** from the target market. Attractive (3) **exchanges** should be created to overcome barriers. (4) **Competition** of the desired behaviour should be identified and analysed carefully. Formative research should be used to (5) **segment** the target audience and if necessary, tailored approaches applied for different segments. All 4 Ps of marketing (product, place, price, promotion) (6) **(methods mix)** should be used and communication-focused interventions should be avoided. (7) **Customer orientation** is driven by an essential understanding of what consumers need and want which, if catered to effectively, should lead to better outcomes. (8) **Theory** should guide the methods mix (NSMC, 2008). A detailed view of the eight NSMC benchmark criteria is given below in Table 2.

**Table 2: NSMC (2008) benchmarks**
Application of theory has been accepted as a benchmark in social marketing interventions since first proposed by the UK’s National Social Marketing Centre (2008). Social marketers apply theory to develop their understanding of target markets (Walsh et al., 1993); to explain relationships between the various factors that impact behaviour; to narrow the focus of social marketing interventions; to pinpoint the questions to be asked (Lefebvre, 2013); to find the determinants of targeted behaviours (Luca & Suggs, 2013); to identify priority audiences (Lefebvre, 2013); and to determine factors to be considered for the planning and evaluation (Lefebvre, 2013; Thompson et al., 2013; Winett, 1995) of the intervention during formative research prior to its implementation.

Notwithstanding that application of theory in social marketing interventions is a benchmark criterion, and effective campaigns tend to use theory for campaign development, implementation and evaluation (Thackeray & Neiger, 2000), there is evidence in the literature suggesting that the application of theory in social marketing interventions is rare (Dann, Harris, Mort, Fry, & Binney, 2007; Gordon et al., 2006; Luca & Suggs, 2013; Rundle-Thiele et al., 2013a; Stead et al., 2007; Truong, 2014; Truong & Dang, 2017). Moreover, those theories that are employed in social marketing interventions are, for the most part, based on the individual, and originate from the academic disciplines of sociology and psychology (Luca & Suggs, 2013; Truong, 2014). This is further supported by Donovan and Henley (2010), who reported that the most frequent behaviour change theories in social marketing interventions included the Health Belief Model (Rosenstock, 1974), Protection Motivation Theory (Rogers & Prentice-Dunn, 1997), Social Learning Theory (Bandura & McClelland, 1977), the Theory of
Reasoned Action (Fishbein, 1979), Cognitive Dissonance (Festinger, 1962), and the Theory of Interpersonal Behaviour (Schutz, 1958). While interventions using theories focused on individuals can be effective at the downstream level, they may not be effective (Angus et al., 2013) in all settings for all issues, given social marketing operates on a continuum of levels and that the general direction in the field is towards mid- and upstream levels (Wood, 2016).

Strategies with an individual focus in social marketing interventions have two main weaknesses (Kotler & Lee, 2008; Szmigin et al., 2011). Firstly, individual-focused theories do not take into account environmental factors that impact behaviours (Szmigin et al., 2011). Behaviour change is too complex a process to be achieved by an individual focus (Wood, 2016). Secondly, individual strategies fail to address the relationship between individuals and the broader society in which they operate (Szmigin et al., 2011), even though society is purported to be the “primary beneficiary” of social marketing programs (Kotler & Lee, 2008). Either one of the major aims of social marketing – “voluntary behaviour change” and “social good” – may not be addressed in an individual focus, and therefore, upstream interventions, including regulation, can be implemented for “social good” (Spotswood, French, Tapp, & Stead, 2012). Upstream interventions that consider environmental determinants may lead to the creation of more supportive environments and beneficial alliances, and result in better outcomes when alliances can be established and supported by policy and regulation (Hoek & Jones, 2011; Lefebvre, 2012, 2013). While individual-focused theories can be applicable when the focus is on individual persons, the involvement of mid- and upstream levels in social marketing interventions may require differently-based theories if further gains are to be made. In fact, theories that can explain the contextual factors influencing behaviour are important for effective interventions (Donovan, 2011; Truong & Dang, 2017). Donovan (2011) argues that “commercial marketing is a capitalist tool but social marketing is a social capitalist tool”, therefore, while commercial marketing focuses on “individualism and competition”, social marketing focuses on “using commercial marketing techniques to encourage collaboration and cooperation” (Donovan, 2011, p. 14). Further, while downstream interventions focus on individuals, environmental population-based upstream interventions are made through policy and regulation, which alter environments to support behavioural change (Hoek & Jones, 2011). As previous literature suggests, partnerships and the continuum of streams requires down-, mid- and upstream level collaboration and an integrated approach to devising solutions (Hoek & Jones, 2011;
Lefebvre, 2013), which requires theoretical approaches. In fact, there is ongoing debate in the social marketing literature about how to include different parties and how to manage their relationships (Domegan et al., 2013; Hastings, 2003; Lefebvre, 2012). The following section will outline relational paradigms. Relational paradigms are defined here as frameworks that describe relationships, or collaborative partnerships, and their management. Differences and similarities between relational paradigms that have guided theoretical discussions in the social marketing field are then discussed.

2.3 Relational approaches in social marketing

Social marketing is about social change, individual behaviour change, and structural adjustments to obviate, or enable different behaviours (NSMC, 2008). Behaviour change as the ultimate goal of social marketing, requires long-term effort (Andreasen, 2002; Hastings & Saren, 2003), and is more likely to be successful when supported by the external environment (Lefebvre, 2012). Consequently, collaborations become mandatory for a broad array of stakeholders including government bodies, individuals and organisations (McHugh & Domegan, 2010) to create a supportive context for new behaviours (Lefebvre, 2006). Establishing and managing long-term alliances that comprise of stakeholders from different levels of society has previously drawn scholarly attention as a possible means to improve the effectiveness of interventions (Domegan et al., 2016).

The term “stakeholder” and references to involving stakeholders, such as government and non-government bodies, individuals and commercial and other interested organisations, in social marketing interventions are commonly seen in the literature (Domegan et al., 2016; Hastings & Domegan, 2013; Lefebvre, 2011b; McHugh & Domegan, 2010; Zainuddin et al., 2011). In fact, working with a range of different parties is beneficial (Thomas, 2008), in that it may lead to stronger commitments to behaviour change (Domegan et al., 2013). For instance, high quality decisions emerged as a result of employing a stakeholder process in an environmental decision-making context (Beierle, 2002). There are reports of positive correlations between the success of intervention outcomes and the number and type of stakeholders included (Gregson et al., 2001). Further, solutions that lie beyond the individual needs of each stakeholder may need to be discussed, and a single stakeholder on its own lacks the capacity to solve complex problems and supply necessary resources (Domegan & Bringle, 2010). It is possible that when stakeholders’ collective needs are considered and directed towards a common goal for mutual benefit, the desired change may occur.
While the need for new frameworks that will elucidate multidirectional relationships between downstream and upstream actors that impact behaviour change has been stated in the literature (Newton, Newton, & Rep, 2016), few examples of theories encompassing relational paradigms in social marketing exist. Further, limited research attention has been directed towards understanding how social marketers can more effectively manage stakeholder relationships. Overall, partnership would seem an essential component in achieving behavioural change (Fleming, 2008), and theory-driven interventions optimal (Stead et al., 2007). This suggests that elaboration of relational paradigms and theories that may guide behaviour change interventions is warranted to develop thinking in the social marketing field.

Theories proposed to manage relationships in social marketing studies include Community Based Prevention Marketing (Bryant et al., 2014), Community Based Social Marketing (McKenzie-Mohr & Smith, 1999), Community Readiness Model (Kelly et al., 2003), Relationship Marketing (Hastings & Saren, 2003; Marques & Domegan, 2011), Partnership Marketing (Thomas, 2008), Transformative Social Marketing (Lefebvre, 2011a), Macro Social Marketing (Kennedy, 2015; Kennedy & Parsons, 2012), Value Creation (Domegan et al., 2013) Systems Social Marketing (Hastings & Domegan, 2013), Community Social Marketing (Hastings & Domegan, 2013) and Strategic Social Marketing (French & Gordon, 2015). Of these, Community Based Prevention Marketing (Bryant et al., 2007), Community Based Social Marketing (McKenzie-Mohr & Smith, 1999), Community Readiness Model (Kelly et al., 2003), and Community Social Marketing (Hastings & Domegan, 2013) have conceptual similarity. The Community Readiness Model (Kelly et al., 2003) positions formative research with key community members at its centre and applies formative research results to determine strategies. The main objective of this model is putting a community into action, including key informants in the process (Kelly et al., 2003) and by doing so, increasing the effectiveness of the intervention (Kelly et al., 2003). Due to its emphasis on community leadership, however, a change in community leadership may impact the existence or continuity of the intervention (Clapp et al., 2005). Similarly, community development and participation building are at the centre of Community Social Marketing (Hastings & Domegan, 2013). Since communities have an active role in the planning and implementation process, community capacity can therefore be directed to solve social problems once community members are trained (Hastings & Domegan, 2013). Although there are slight differences, the mutual point of these two approaches is their aim of active participation of community
members, and optimising efficiency as a result of mobilising the community (Hastings & Domegan, 2013; Wolff, 2001).

Community Based Prevention Marketing (Bryant, Forthofer, McCormack Brown, & McDermott, 1999) refers to collaborative partnerships between different agencies, such as academics, health professionals and local business representatives, with a focus on prevention. These collaborations lead to defining a community’s problems, set objectives for their prevention, design, implement and co-create value (Domegan et al., 2013; Lefebvre, 2012) through action research (Domegan et al., 2013; Lefebvre, 2012), and evaluate evidence-based interventions. McKenzie-Mohr (2003) proposes Community Based Social Marketing (CBSM), emphasising that behaviour change for environmental sustainability, in particular, is most effective when social marketing campaigns are delivered at the community level. While the first three approaches share similarities, CBSM is differentiated by reference to a geographically-defined community as the intervention’s target audience. The advantages of community-focused approaches include integrating individuals into interventions as active participants. When a community is involved in solutions to problems which are affecting it, positive outcomes are more likely since solutions will tend to be more culturally acceptable and politically possible (Domegan et al., 2013). Although social marketing principles are followed, formative research is typically based on a single stakeholder group which is representative of the target audience (Bryant et al., 1999). As a result, there is a risk of forming a “participating elite” in community-based interventions (Lefebvre, 2013), and potential conflicts between involved parties in the community (Lefebvre, 2013; Wolff, 2001) may surface. Further, discontinuity of some campaign elements (such as newspaper ads) is reported to be a consequence of changing stakeholder representation (Clapp et al., 2005; MacFadyen, Stead, & Hastings, 2003), which serves to highlight the importance of effective management approaches that ensure the continuity of campaigns independent of individual actors.

One of the relational approaches discussed in social marketing is relationship marketing, which refers to “doing things with customers not to them” (Hastings, 2003, p. 8; emphasis added). Relationship marketing emphasises building long-term relationships (Hastings, 2003; Hastings et al., 2002) with change agents from various levels, including policy makers, private companies, and regulators (Hastings, 2003). Therefore, all stakeholders can be value creators of social marketing efforts which signify moving away from one-off transactions to the building of ongoing relationships (Hastings et al., 2002). Hastings
(2003) proposes a multi-relationship model of social marketing that encompasses supplier (service and good suppliers), lateral (competitors and government), internal (employees and functional departments), and buyer (funders and consumers). Because the relationship marketing approach is about building relationships between different stakeholders, its articulation does not offer guidance on how to manage those relationships (Hastings, 2003). Furthermore, prioritising stakeholders remains problematic (Hastings, 2003).

Another relational approach that has been proposed in the literature is partnership marketing, which highlights the importance of including different partners who might benefit social marketing programs (Thomas, 2008). However, partnership marketing does not seek to gather systematic insights from partners. The transformative partnership approach, on the other hand, seeks to employ marketing principles for societal good (Lefebvre, 2012), and highlights the necessity for insights to be gathered from individuals and stakeholder groups (Lefebvre, 2012).

The Total Market Approach (TMA) is a macro level approach that aims to influence behaviour by modifying product and service offerings, even at the local level (Lefebvre, 2011a), and improve opportunities to engage in healthy behaviours (Lefebvre, 2011a), with the emphasis on financing and coordinating multiple interventions (Lefebvre, 2008). Similarly to TMA, Macro Social Marketing (Kennedy, 2015; Kennedy & Parsons, 2012) and Government-led Social Marketing (Wymer, 2011) aim to make systematic changes (Domegan, 2008). Systems thinking, on the other hand, posits the dual need for a top-down and bottom-up perspective in tandem within the micro-meso and macro systems (Domegan et al., 2016) if a greater impact is to be made. Strategic social marketing is an upstream approach whereby policy is shaped and the delivery of interventions supported (French & Gordon, 2015) by applying social marketing principles.

While these approaches with a macro focus analyse relational paradigms, management of those relationships has received less attention. The macro focus points to the fact that stakeholders need to be taken into account in intervention design and planning, yet such approaches fail to provide a framework for identifying stakeholders. Therefore, the importance of understanding the perspectives of multiple parties, and managing the relationships between them, to the outcomes of social marketing interventions warrants further research attention.
Social marketing scholars have advocated that social marketers move away from approaches centred on individuals and take the wider environmental view (Szmigin et al., 2011). Instances of such broader approaches are now clearly apparent in the literature (Carins & Rundle-Thiele, 2014; Carins et al., 2016). While the necessity of considering different stakeholders has caught the attention of a number of social marketing scholars (Hastings & Saren, 2003; Kubacki & Rundle-Thiele, 2013; Marques & Domegan, 2011), the use of stakeholder focused theories has, to date, not been reported. To the best of this author’s knowledge, the current thesis is the first to articulate the potential benefits of stakeholder theory to social marketing interventions. It is argued that using stakeholder theory as a theoretical tool to understand all involved stakeholders, to implement social marketing interventions, and to evaluate the outcomes of interventions will provide a new way of understanding, implementing and measuring the effectiveness of social marketing interventions.

Further, in view of the constraints of time and funding on social marketers, management thinking’s grounding in the effective deployment of scarce financial, natural and time resources (Appelgren & Klohn, 1999; Engwall & Jerbrant, 2003) may offer this benefit to social marketers. Management concepts for dealing efficiently with limited resources (including financial, time and natural resources) (Sirmon & Hitt, 2003) may assist in extending social marketing’s effectiveness.

Alcohol is one of the most heavily promoted products in the world (Jernigan, 2010). Product advertisements for alcohol are, for example, 22 times more likely to be seen than “responsible drinking” ads or commercials that have moderate drinking messages (CAMY, 2008). Furthermore, alcohol manufacturers have spent 44 times more money on marketing alcoholic beverages than promoting socially responsible drinking (CAMY, 2008). Given that big corporations, which include alcohol manufacturers, allocate enormous resources to marketing commercial products, and that social marketers have far fewer resources in comparison, application of the tools and tactics of management theories by social marketers may offer them a means of achieving some balance in this competition.

The involvement of different parties at different stages of an intervention poses challenges. For one, involved parties may have different agendas (Andreasen, 2002; Domegan et al., 2013; Lefebvre, 2006), expectations (Bryant, Forthofer, Brown, Landis, & McDermott, 2000), priorities (Hastings et al., 2002; Lefebvre, 2006), and conflicting interests (Hoek & Jones, 2011). In addition, coordination of those relationships might be
time consuming (Nangoli et al., 2016; Thomas, 2008), priorities of partnering organisations may change overtime (Lefebvre, 2006), commitment and consistency of partners can be uneven (Maibach & Cotton, 1995; Singer & Kayson, 2004), and for social marketers, there is always the risk of loss of ownership (Thomas, 2008) and control of the intervention (Lefebvre, 2006). Although such risks are always present in social marketing interventions, studies reported in the literature have not addressed how to **effectively manage** those relationships to avoid those risks for optimal benefit to society.

This thesis proposes that the risks involved in partnering with different organisations can be minimised with careful management of those relationships. The following section outlines stakeholder theory (Freeman, 1984) and discusses the potential benefits of implementing a stakeholder approach in social marketing intervention design and planning.

### 2.4 Stakeholder theory

Globalisation, rapid development of information technologies, and increasing concerns about the impacts of business practices on wider populations has prompted a revision of our understanding of business. Competitive markets and commercial models require constant improvements in performance to sustain success (Freeman, Harrison, Wicks, Parmar, & DeColle, 2010). Interconnectedness, recognition of the impacts of business practices on societies (Freeman, 2010), and intensifying social issues impel the involvement of different stakeholders to solve problems (Bryson, 2004). Consideration of multiple stakeholders in devising solutions is a major formula for sustained success (Bryson, 2004) when compared to considering only the interests of the enterprise.

The adoption of a commercial, managerial mindset, which requires taking into account the dynamic business environment and all parties involved and impacted by the market, is captured in Freeman’s (1984) stakeholder theory. This theory, proposed in the early 1980s, describes stakeholders as “[a]ny group or individual who can affect or is affected by the achievement of the organisation’s objectives” (Freeman, 2010, p. iv). Discussion of stakeholder theory mainly centred on understanding how the relationships between a business and all groups and individuals who have an effect on and who are affected by its business practices could be better dealt with (Freeman, 2010). In sum, stakeholder theory was developed to reconceptualise business practices (Freeman, 2010). The idea of considering stakeholders’ views, understanding their needs and concerns, and gaining their support resulted in the theory’s first formulation.
Stakeholder theory has been shown to benefit companies and it has been applied in various business settings such as relationship marketing (Knox & Gruar, 2007), strategic management (Bonafous-Boucher & Rendtorff, 2016), and corporate social performance (Ruf, Muralidhar, Brown, Janney, & Paul, 2001). There is a body of evidence suggesting that companies who attend to their stakeholder groups are more successful than companies who do not (Bryson, 2004). Further, there is a demonstrated link between consideration of stakeholders in the decision-making process and a company’s success (Donaldson & Preston, 1995). As a result of tailored solutions or stakeholder-specific strategies (Singh & Dikshit, 2016) stakeholder approaches may lead to better outcomes for companies (Lafreniere, Deshpande, Bjornlund, & Hunter, 2013).

Relationships between stakeholders are bidirectional and have continuity of ideas, and enhanced constraint of environmental factors is possible if all relevant parties are involved (Singh & Dikshit, 2016). For instance, the involvement of different parties can generate more creativity, and wider dissemination of ideas/campaign materials can be achieved (Lafreniere et al., 2013). Moreover, a stakeholder approach may minimise risks posed by the different agendas, expectations and priorities of different stakeholders. For instance, when a stakeholder approach was undertaken in management of primary schools, a significant positive outcome was reported (Nalweyiso, Yusuf, Namiyingo, & Nangoli, 2015). However, while good management of stakeholders may have produced this result, it was noted that an environment that allowed stakeholders to exhibit engagement also needed to be created (Nalweyiso et al., 2015).

In the current thesis, stakeholder theory is proposed as a management framework. Stakeholder theory can guide social marketing interventions from the formative research stage, offering an operational tool. Further, stakeholders in the intervention/issue can be identified according to the degree of their importance in relation to expected outcomes. In addition, stakeholder theory can be beneficial as a managerial lens in organising and deploying human, financial and time resources in the most effective way. Applying a management approach to the intervention may assist to ensure the continuity of successive interventions to reach more sustainable outcomes.

In the modern world, companies deal with multiple stakeholders in their day-to-day operations. Due to limited time and financial resources, stakeholder relationships have to be managed effectively. Therefore, stakeholders must be prioritised according to their importance to the company’s survival (Hult, Mena, Ferrell, & Ferrell, 2011). Hult, Mena, Ferrell and Ferrell (2011), defined six primary stakeholder groups which are vital for
corporate survival, namely, customers, employees, suppliers, shareholders, policy makers and the community. Other stakeholders that the company deals with (but who may not be as important to business survival as primary stakeholders) include competitor companies and the media (Clarkson, 1995). In the case of problem alcohol drinking, primary stakeholder groups are represented in consumers, alcohol suppliers/manufacturers, policy makers, licensed premise owners, managers and staff, alcohol outlet owners, and community. Indirect groups include the media.

2.5 Potential benefits of a stakeholder theory-driven approach to social marketing interventions

In social marketing interventions there are various nominal terms for stakeholders, which are used interchangeably (Buyucek et al., 2016; Truong & Dang, 2017). For instance, initiatives (Hastings et al., 2002), gatekeepers (MacFadyen et al., 2003), coalitions (Singer & Kayson, 2004), agencies (de Vasconcelos & Bacelar, 2009), opinion leaders (Lefebvre, 2006), alliances (Temple et al., 2008), key influencers (Briggs, Grella, Burton, Yarmuth, & Taylor, 2012), partners (French & Gordon, 2015), and stakeholders (Domegan et al., 2013; French & Gordon, 2015; Lefebvre, 2012; McKenzie-Mohr, 2003) are all terms that have been used in social marketing scholarly literature to indicate primary stakeholders as defined in Section 2.4.

Social marketing interventions comprise three main steps – formative research, implementation and evaluation (Andreasen, 2002). The potential benefits of applying a stakeholder approach in each step of a social marketing intervention will be outlined in the following sections.

2.5.1 Formative research

Formative research in social marketing refers to techniques that are used to comprehensively understand the target audience (Hopwood & Merritt, 2011) and the dimensions of the issue (Hopwood & Merritt, 2011; Kubacki & Rundle-Thiele, 2017), including those experienced by stakeholders, to inform program planning. The main objective of formative research is gathering insights from the target group(s), and identifying barriers to desired behaviours (Domegan et al., 2016). Formative research techniques include, but are not limited to, surveys (Scheier & Grenard, 2010), observations (Bot, Engels, Knibbe, & Meeus, 2007), action research (James & Skinner, 2009) and systematic literature reviews (Fujihira, Kubacki, Ronto, Pang, & Rundle-Thiele, 2015). Formative research in social marketing is dominated by self-reported
studies and mainly focuses on the group(s) of people whose behaviour is the target of change (Truong & Dang, 2017).

Focusing solely on one single group – usually the target group in social marketing interventions (Kubacki et al., 2015) – provides only one perspective (Domegan et al., 2016) and risks ignoring, and thereby missing insight into other groups who may have an impact on the behaviour (Carins et al., 2016), which may diminish intervention effectiveness. In practice, social marketing interventions are often implemented in complex settings where multiple stakeholder groups are involved (Buyucek et al., 2016; Truong & Dang, 2017). Further, stakeholders are known to shape and influence behaviours. In other words, because human behaviours are shaped by environmental factors as well as by the social structures surrounding individuals, all parties with a stake in behaviour change may need to be considered in the formative research.

An unattended stakeholder group poses its own risks, such as influencing intervention efforts positively or negatively (Maibach & Parrott, 1995), which suggests that identification of all relevant stakeholders is an important endeavour in formative research. Communicating with any stakeholder may have an impact on behaviour change and the behaviour in question should be viewed through stakeholders’ unique lenses (Hastings, 2003) and communication with relevant stakeholders is equal in importance to communicating with the target audience/group (MacFadyen et al., 2003). In addition, stakeholder involvement enhances learning and by considering different stakeholder groups’ various needs and concerns, performance of the social marketing interventions can be improved (Singh & Dikshit, 2016).

When relevant stakeholders are considered in the formative research; the problem can be understood in its entirety when viewed from the range of pertinent perspectives (Domegan et al., 2016). In fact, there are calls in the literature to listen to different stakeholders’ opinions (Kubacki et al., 2015). By doing so, high quality decisions can be made (Beierle, 2002); the different, often conflicting, views of stakeholder groups (Wolff, 2001) can be identified; a comprehensive situation analysis can be drawn (Lefebvre, 2006); and any bias arising from social marketers’ “mental models”, worldviews (Wymer, 2011), or decisions made in isolation by a “social marketing elite” (Douglas, 2008; p. 150), can be circumvented. Stakeholder involvement in formative research helps researchers to identify and select the behavioural strategy that will accomplish the best outcome (Truong & Dang, 2017). Furthermore, wider involvement in formative research
allows participants to be part of the solution and can serve their developing "a sense of ownership" (Gittelsohn et al., 1998, p. 252), as well as establishing collaborations with other stakeholders (Vastine, Gittelsohn, Ethelbah, Anliker, & Caballero, 2005). In addition, since formative research in social marketing interventions is extensive, a greater impact is more likely (Gordon et al., 2006).

In practice, “social good” and the “finding solution(s) to the problem/issue” are central to the interests of the stakeholders gathered to tackle the problem. Social good is the common ground which will later serve to avoid wasting scarce time and financial resources, and to find efficient solutions through maximised beneficial outcomes. From the beginning, social marketers are positioned to plan the collaboration as central actors and hence ensure its continuity (Nangoli et al., 2016). For instance, social marketers can identify primary stakeholders systematically and gather insights from those identified groups to inform intervention design. In doing so, better outcomes, strategies (Truong & Dang, 2017) and sustainable collaborations may be achieved.

A few recent studies from the social marketing literature have suggested that although several stakeholders may often be involved in tackling different social issues, systematic approaches to identifying those stakeholders are lacking. Domegan et al. (2016) applies a systems methodology in “Sea for Society”, an environmental project to manage sustainable marine ecosystem services across 12 European countries. Identification of participants drew upon Freeman’s (1984) stakeholder theory; primary and secondary stakeholders were participants in the study, which used a “whole-system-in-the-room” approach (Domegan et al., 2016, p. 1129). Behavioural causalities at micro, meso and macro levels, and barriers and conflicts between stakeholders were identified, and solutions were proposed by participants in the study. The participatory process was reported in terms of decision making to identify and overcome barriers. Further, stakeholder participation was favourable in terms of stakeholder theory. However, a mapping technique to identify “Sea for Society” stakeholders who participated in the study was not reported by social marketers, and as a result, key stakeholders may have been overlooked.

Limited application of stakeholder identification techniques in social marketing interventions may indicate that social marketers select stakeholders based on “assumptions or lay knowledge” (Truong, 2014), or in isolation, by “elite specialists” (Douglas, 2008, p. 150), and that social marketing interventions “privilege the researchers’ knowledge” (Douglas, 2008, p. 150). Truong and Dang (2017) suggest that
it is hard to identify contributing factors in successful interventions if they are developed instinctively or presumptively. Prioritisation and inclusion of primary stakeholders in formative research would allow researchers to better understand how to avoid unexpected outcomes or compromised situations, and to identify externalities that may negatively impact relationships and/or outcomes (Buyucek et al., 2016).

It is difficult to predict all risks, possibilities and determining factors before an intervention. Having in place a framework and a management approach that is prepared for different possibilities can guide the identification of those parties that are best placed to bring about behavioural change (Lefebvre, 2013). The stakeholder literature provides different approaches to identifying those stakeholders (Bryson, 2004; Hult et al., 2011; Mitchell, Agle, & Wood, 1997). For instance, Bryson (2004) discussed identification in detail and proposed 15 different techniques in four categories. Bryson (2004) argued that when there are multiple stakeholders and no-one-in-charge, stakeholder analysis plays a large role in identifying the most important stakeholders with the most impact potential.

In summary, including stakeholders who have an impact and impacted by the behaviour change in the formative research, assists considering different interests and opinions of different stakeholders where continuity of the stakeholder involvement can be ensured. In addition, sustainable outcomes in the long term can be gained and supportive environments for behaviour change can be sustained.

2.5.2 Implementation

The implementation stage of a social marketing intervention is focused on delivering a social marketing mix to the target audience employing strategies drawn from formative research. The highest stakeholder involvement occurs in the implementation stage (Buyucek et al., 2016) of social marketing interventions targeting alcohol consumption behaviour.

While a variety of stakeholders are involved in implementation, the continuity of their collaboration is reported to be a problem experienced in social marketing interventions (Maibach & Parrott, 1995; Singer & Kayson, 2004). However, developing formal partnerships, and finding common ground in the basic principles of social good may help to minimise the risk of losing partners (MacFadyen et al., 2003). Further, the stakeholder representative’s personality and self-interest also factor in these relationships (Domegan et al., 2013). When there is consensus on basic principles, which can be developed by a project manager systematically approaching stakeholders, difficulties may be minimised.
Different stakeholders may frame their relationships according to their own self-interest and agenda (Domegan et al., 2013; Lefebvre, 2006; Singer & Kayson, 2004; Thomas, 2008). Systematic and strong leadership with the ability to see through the stakeholder lens and develop consensus in a mutual agenda can reduce the risks emerging from divergent agendas, motivations, and needs. Salient factors for long-term partnership success include establishing a stakeholder approach at the start and taking it into the implementation stage, and ensuring that all stakeholders are aware that their views are acknowledged and important (Lefebvre, 2006). As a result of all views being represented, the different parties can all take ownership of the agenda developed by the team, and their collaboration is likely to produce sustainable and long-term outcomes (Nangoli et al., 2016). For example, evidence suggests that when stakeholders feel that their views are represented and cared about, they are likely to engage and actively participate in collaborations (Domegan et al., 2013; Nangoli et al., 2016). Further, when participants have a sense of partnership and see other stakeholders in the same community acting towards a common goal, they are more likely to share information and be open about disagreed points (Bridoux & Stoelhorst, 2014). Partnerships of this character tend to be long-lasting (Bridoux & Stoelhorst, 2014; Nangoli et al., 2016).

A managerial lens is necessary to effectively manage limited resources (Thomas, 2008), for continuous process tracking (Lefebvre & Flora, 1988), for identifying the most important players in supporting behaviour change (Lefebvre, 2006), for sustaining long-term partnerships (Domegan et al., 2013), and therefore, delivering solutions. Further, the managerial approach can gain additional funding for the intervention or resources from different stakeholders (Domegan & Bringle, 2010; Thomas, 2008), prevent ineffective allocation of financial and human resources (Lefebvre, 2011b), establish a proactive decision-making process (Lefebvre, 2011b), and ensure the centralisation and continuity of interventions (de Vasconcelos & Bacelar, 2009). In fact, by implementing a stakeholder approach social marketers can be “the leaders who must put things together so they work” (Smith, 2010, p. 140).

In conclusion, regardless of the scale of an intervention, when multiple parties are involved conflicting interests and potential risks are inherent. The risks associated with self-interest can be avoided with an overarching agenda to sustain relationships, track process and progress, and implement necessary changes, which can be ensured with a management approach.
2.5.3 Evaluation

Evaluation in a social marketing intervention is assessment of the delivery process, its immediate outcomes, and long-term impact (Stead & McDermott, 2011). In a small-scale campaign where campaign facilitators are in direct contact with the target group(s), evaluation can be easily organised and outcome measures easily agreed upon (Peattie & Peattie, 2003). For large-scale projects, assessment of impact may involve complex measures across multiple stakeholders. Because social marketing does not offer the concrete products or services that commercial marketers do, it is sometimes hard to determine the success of an intervention (marketing effort) (Aschemann-Witzel, Perez-Cueto, Niedzwiedzka, Verbeke, & Bech-Larsen, 2012), unless outcomes are well defined at the outset.

In social marketing practice, evaluation of interventions is usually based on self-reported measures of knowledge and behavioural effects (Truong & Dang, 2017). However, the inclusion of selected stakeholders at the formative research stage requires that different outcome measures, such as raised awareness, knowledge and behaviour change at the individual level, be developed along with those for programme efficiency (Buyucek et al., 2016; Carins et al., 2016), success of value creation (Lefebvre, 2012), and even sustainability (Lefebvre, 2012). In effect, behaviour change in itself does not have to be the only indicator of success (Lefebvre, 2012). Evaluation of an intervention’s success can be shifted away from individual behaviour change to changes in the environment and sustainability of change.

Although partnership is one criterion of success in social marketing programs, i.e. how partners of social marketing interventions change (Lefebvre, 2012), sustain (Lefebvre, 2013), and build trust and commitment among themselves (Hastings, 2003), such measures are only very rarely used to evaluate outcomes. Progressive learning and monitoring of progress are at the core of social marketing (Hastings & Domegan, 2013). However that the type, quantity and strength of partners involved in an intervention can be important indicators of the likelihood of change (Gregson et al., 2001), there is only very limited inclusion of stakeholders in the evaluation stage of social marketing (Buyucek et al., 2016), which is target group-focused. Therefore, a stakeholder-driven approach would extend outcome measures from individual behaviour change (usually in targeted groups) to stakeholders. The shift in focus is likely to glean greater insight into developing and maintaining enduring partnerships and programming, and may thus lead to more sustained behavioural change over time. Additionally, the adoption of
stakeholders in evaluations offers alternative measures of intervention effectiveness. Change is a long-term process and in the case of complex, wicked problems requires the wider involvement of stakeholders. Evaluations which consider the progress made by a coalition of stakeholders in lowering barriers to change, in addition to individual behaviour change, would provide a more comprehensive understanding of program effectiveness.

2.6 Summary

Social marketing is a behaviour change approach which has over a few decades evolved from a sole focus on individuals (Luca & Suggs, 2013; Truong, 2014) to adoption of meso and macro level approaches (Hoek & Jones, 2011) which necessarily involve partnerships (Lefebvre, 2012, 2013). Behaviour change, the core objective of social marketing (Andreasen, 1994; Gordon, 2011; Hoek & Jones, 2011; Kotler & Zaltman, 1971; Stead et al., 2007), requires different parties’ involvement in creating supportive environments in which the desired behaviour can occur. Interventions focusing on individuals are limited (Kotler & Lee, 2008) in their consideration of the environmental factors (Szmigin et al., 2011) that shape the behavioural settings, and by a lack of understanding of the complex interplay of individuals targeted for change and the broader society (Donovan, 2011). To focus on intervention partnerships requires social marketers to move away from approaches and theories based on the individual (Hoek & Jones, 2011).

There is an ongoing debate among social marketing scholars about relational approaches (Domegan et al., 2016; Hastings, 2003; Lefebvre, 2012; McHugh & Domegan, 2010) which focus on inclusion of different stakeholders in social marketing interventions across different levels (i.e. community, macro or planet level) (Buyucek et al., 2016) and emphasise partnering with different stakeholders for better outcomes (Domegan et al., 2016; Hastings & Domegan, 2013; Lefebvre, 2006, 2012; Zainuddin et al., 2011). Although some scholars highlight the fact that involving different parties introduces the challenges of divergent agendas (Andreasen, 2002; Domegan et al., 2013), priorities (Hastings et al., 2002; Lefebvre, 2006), and conflicting interests (Hoek & Jones, 2011), perspectives on how to manage those relationships and minimise risks are few (Bryant et al., 2014; Kelly & Stanley, 2014; Vinci et al., 2010).

The stakeholder approach is a management approach (Freeman, 1984) reported to be effective in commercial business settings (Bryson, 2004). Donaldson & Preston (1995) found, for example, that successful companies tend to consider the views of their
stakeholders during decision making. Given that social marketing has derived its theories and tools from commercial marketing, a stakeholder approach may offer a viable alternative in the management of multiple stakeholders in complex settings and thus, lead to better outcomes. For example, including stakeholders in the formative research stage actively involves them in the intervention, which may nurture a sense of ownership and strengthen their commitment (Gittelsohn et al., 1998). Potential risks and conflicting interests (Wolff, 2001) between stakeholders, and different views (Domegan et al., 2016) can be identified, and strategies to prevent negative outcomes developed. Further, a continuum of collaboration (Hoek & Jones, 2011; Nangoli et al., 2016) may be enabled through the adoption of stakeholder management approaches.

Involving relevant parties may also strengthen implementation (Lefebvre, 2006), specifically, with additional financial resources (Domegan & Bringle, 2010; Thomas, 2008). Inclusion of stakeholders in the evaluation stage offers a means to improve outcome measurement, since the evaluation will extend beyond individual change to the process of change (Lefebvre, 2006). Understanding the progress made within partnerships may provide the value of identifying the barriers which impede individual change.

The following section will outline the methodology employed in the thesis, including research paradigm, philosophical positioning of the researcher and the research design. The three studies will be outlined briefly along with participants, sampling method, procedures, and data analysis.
Chapter 3 – Research design and methodology

3.1 Overview
This chapter describes the research paradigm, philosophical positioning of the researcher, the research design, and methodology. The studies (Chapters 4, 5, and 6) designed to answer the research questions are described briefly. For each of the studies, the participants, sampling, data collection procedures, data analysis and ethical considerations are explained.

3.2 Research paradigm and philosophical positioning
Research is built on a paradigm which underpins the research activity (Kuhn, 2012) and a conceptual framework (Perry, Riege, & Brown, 1999). Paradigms guide researchers to prioritise problems and issues within the discipline, to develop explanatory schemes, establish criteria for methodologies and research design, and provide an epistemology (Brennan, Voros, & Brady, 2011; Deshpande, 1983). The two main philosophical dimensions of a paradigm are ontology and epistemology. While ontology is concerned with the nature of reality, epistemology mirrors how knowledge and knowledge creation is perceived by the researcher (Perry et al., 1999). Epistemology and ontology will both differ according to the research paradigm guiding the program of research, and influence the research approach and methodological preferences of the researcher (Brennan et al., 2011). Research cannot be clearly understood without knowledge of the philosophical foundations underpinning the research (Brennan et al., 2011).

There are four main research paradigms recognised, namely, criticism, constructivism, positivism, and realism (Heron & Reason, 1997; Perry et al., 1999). Another alternative however, which draws on transactional realism (Hall, 2013) and was proposed by Peirce (1974), is pragmatism. Pragmatism is an epistemological framework (Wicks & Freeman, 1998) offering a viable alternative to both positivists and anti-positivists by rejecting the categorical distinctions of positivism and instead, drawing pragmatic distinctions amongst methods and evidence (Wicks & Freeman, 1998).

Pragmatists are more concerned with unearthing information that is useful for people (Rose, 2011) than with adherence to any one philosophy or view of reality (Mackenzie & Knipe, 2006). Pragmatism is distinguished by its practical bearing that shifts attention from epistemology to addressing the most useful research questions and designing researches to yield the most reliable answers (Wicks & Freeman, 1998). Studies are only
“a vehicle to help people lead better lives” (Wicks & Freeman, 1998, p. 124). Unlike in positivism, usefulness in addressing the research question applies in two dimensions: normative (is it helpful in advancing projects?); and epistemological (is this information valid, credible and reliable?). Novelty is also of interest to pragmatists, who are open to any research methodology that (depending on the research objectives) gathers insights (Wicks & Freeman, 1998), and advocate mixed methods if necessary for the best interests of the research question that must elicit useful and reliable answers (Tashakkori & Teddlie, 2010). The current study seeks to gain insights into relations and interactions between the structures and mechanisms underlying alcohol consumption behaviour in natural settings, namely licensed premises, which constitute a unique drinking context. The current research aims to address three research questions which, together, seek to address a problem impacting society. As social marketing’s chief concern is with social good, choosing methods that will draw the deepest understanding from real world contexts requires a study design that will glean essential insights, of which the best guide is the pragmatist approach (Creswell, 2013). Therefore, pragmatism was selected as an appropriate research paradigm for the present research and its objectives, and also reflects the worldview of the researcher.

This thesis adopts a mixed method approach, combining a systematic literature review, observational study and survey guided by pragmatism to answer the research questions (Johnson & Onwuegbuzie, 2004). Since the thesis comprises of a series of papers, the methodology is briefly outlined in the following sections, and further details for each specific study are provided in Chapters 4, 5, and 6. In the following Table 3, an overview of the research overview is presented.
### Table 3: Research overview

<table>
<thead>
<tr>
<th>STUDY</th>
<th>Study 1a</th>
<th>Study 1b</th>
<th>Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Survey</td>
<td>Observation</td>
<td>Systematic Literature Review</td>
</tr>
<tr>
<td>GAPS</td>
<td>Need for comprehensive formative research</td>
<td>Limited application of mixed methods in social marketing interventions</td>
<td>Lack of knowledge on which stakeholders are involved in social marketing interventions</td>
</tr>
<tr>
<td></td>
<td>Interaction of moderate drinking practices, alcohol expectancies and self-efficacy have not been examined to date</td>
<td>Limited observation studies focusing on actual on-premise drinking behaviour as well as contextual factors</td>
<td></td>
</tr>
<tr>
<td>RESEARCH QUESTIONS</td>
<td>RQ1 - Which factors impact moderate drinking practices?</td>
<td>RQ2 - What are patrons’ drinking patterns and influential factors of alcohol consumption in licensed premises?</td>
<td>RQ3 - Which stakeholders were involved in social marketing interventions targeting problem alcohol drinking?</td>
</tr>
<tr>
<td>SAMPLE</td>
<td>Convenience sampling</td>
<td>Convenience sampling</td>
<td>Self-reported social marketing interventions</td>
</tr>
</tbody>
</table>

### 3.3 Research overview

This thesis describes a formative research project employing triangulation of three different studies. In all three studies, deeper knowledge about alcohol consumption was sought by investigating alcohol drinking, individual outcome expectancies and drinking refusal correlates using approaches that have previously proven to be effective in stakeholder-involved interventions that aimed to reduce problem drinking. Three studies were conducted to answer the three research questions as set out in Table 3.

Study 1a attempted to answer the first research question, *Which factors impact moderate drinking practices?* The study addressed this question by examining AEs, DRSE and MDPs simultaneously to understand moderate drinking practice correlates that may assist in reducing overconsumption of alcohol. Study 1b was designed to gain insight into on-premise drinking. The second research question, *What are patrons’ drinking patterns and influential factors of alcohol consumption in licensed premises?* was addressed in this observational study which identified various factors associated with alcohol drinking in a natural setting. The third study aimed to determine the extent to which drinking stakeholders were involved in social marketing interventions aiming to reduce problem alcohol drinking to answer the third research question, *Which stakeholders were involved in social marketing interventions targeting problem alcohol drinking?* A systematic literature review addressed the need to examine more recent social marketing intervention...
literature to understand stakeholder engagement in alcohol drinking interventions. The three studies are briefly detailed in this chapter, while methodologies for each study are provided in respective chapters.

3.3.1 Formative research

Formative research is fundamental to social marketing (Andreasen, 1995), and one of its benchmark criteria (NSMC, 2008). Formative research refers to techniques that are used to gather insights from various groups (usually from target audiences) (Hopwood & Merritt, 2011) via different methods including surveys, observations, and in-depth interviews to inform interventions (Andreasen, 2002). Formative research seeks to understand audience motivations, and the driving forces and origins of behaviours (Carins et al., 2016). Further, measurements used in formative research may be used as outcome measures following the implementation of an intervention (Truong, 2014). Various methods are used in social marketing formative research including action research (Rhodes et al., 2010), observations (Carins et al., 2016), focus groups (Eckert et al., 2010), experimental methods (Rothschild et al., 2006). Surveys, in-depth interviews, and focus groups are the most commonly used (Kubacki et al., 2015), either on their own or, less commonly, in a mixed research design (Truong & Dang, 2017). Even though mixed methods have increasingly been applied in social marketing interventions in recent years (Truong, 2014) scholars have called for more mixed method use in formative research (Truong & Dang, 2017). Application of a mixed method design in social marketing formative research can provide a comprehensive picture of the problem (Denscombe, 2014) and deeper understanding of the phenomenon (Carins et al., 2016). Consumers in social marketing settings, such as alcohol drinkers, or the funders of the activities of government health departments are the groups which benefit first-hand from social marketing endeavours (Hastings, 2007). Therefore, understanding consumers’ drinking behaviour from all angles plays a vital role in the development of successful social marketing campaigns.

In Study 1a, AEs, DRSE, and use of MDPs were examined to identify correlates for the quantity of alcohol consumed. Next, the aim of study 1b was to observe alcohol consumption in licensed premises to understand the quantities of alcohol consumed in that setting. The main goal of study 1b was to draw together a comprehensive picture of on premise drinking. Finally, study 2 was designed to investigate stakeholder involvement in interventions aiming to minimise alcohol-related harms to inform future stakeholder involvement in intervention design and planning.
Therefore, the overall research project was designed as a methodological triangulation of three studies, using mixed methods that included survey, observations, and a systematic literature review to investigate the research questions. The following sections will outline the logic behind the methodological triangulation, and each study briefly.

3.3.1.1 Triangulation
Methodological triangulation employs multiple methods to gain the most detailed and complete data possible (Hall & Rist, 1999) and to more accurately and precisely answer the research question (Creswell & Plano Clark, 2007). The aim of the triangulation was to perceive the alcohol consumption problem from all angles to avoid missing any aspect of the phenomenon whose omission may impact or weaken the strategies that will be developed from the results of the formative research study.

There are several advantages to triangulating methods. First of all, the method provides a more complete set of findings than those obtained through only one method (Thurmond, 2001). Secondly, flows from one method would strengthen another (Fielding, 2012). Thirdly, triangulation deepens the data by combining different methods, and theory validity can be tested via cross-checking between different methods (Hussein, 2015). Therefore, methodological triangulation was selected because of these advantages for the reliability and cogency of the research.

3.3.1.1a Study 1a – Online survey
Survey as a research method is widely used in social marketing formative research (Aalto et al., 2003; Basil, 2017; Eaton et al., 2004). Surveys usually contain sets of measures that include open- or close-ended questions and are disseminated via various channels (Basil, 2017). Moreover, online surveys are more time-efficient and cost-effective compared to other research methods (Wright, 2005).

The study 1a survey was designed to investigate AEs, DRSE and MDPs to gain insights into alcohol consumption in an adult sample – which is considered the primary stakeholder group in the current study. The validated measures used in the study were Drinking Expectancy Profile (DEP) (Lee et al., 2003; Oei, Hasking, & Young, 2005) and Moderate Drinking Practices (NDSHS, 2013) (Please see Appendix 1). The survey took approximately 15 minutes to complete and data were collected through multiple channels, including social media, the university’s internal email broadcast to staff, and a research panel (Please see Appendix 2 and 3). A total of 774 responses were received, which, after data cleaning, resulted in 650 respondents. SEM was conducted to examine AEs, DRSE
and MDPs simultaneously. The complete study including full methodological details is reported in Chapter 4.

3.3.1.1b Study 1b – Observation

Observation is a formative research technique used in social marketing (Rundle-Thiele, 2009). Observation methods include collecting empirical data by observing participants, or conducting any activity that does not question participants (Lee & Broderick, 2007). The method is used in research settings particularly when recalling an action is difficult or an action will potentially go unnoticed by actors (Bogomolova, 2017) because of the habitual nature of the behaviours, or when an individual’s thinking process might be particularly impaired (Sykes, Rowley, & Schaefer, 1993), which occurs with substance use. Observation allows researchers to consider the accuracy of claimed behaviour by observing respondents in their natural environment (Rundle-Thiele, 2009), and can compensate for the omissions inherent in self-reported studies (Hall & Rist, 1999). Observations can be in a natural (Hughes, Bellis, Anderson, Moller, & Galea, 2012) or artificial (Bot, Engels, & Knibbe, 2005) setting. In the alcohol drinking context, observation is claimed to be the most accurate method of investigating people’s actual drinking behaviour (Bot et al., 2005). In prior research in alcohol consumption, observation has been used to assess violence in nightclubs (Graham, West, & Wells, 2000), evaluate outcomes of an intervention (Warpenius, Holmilä, & Mustonen, 2010), and explore drinking behaviour (Rundle-Thiele, 2009).

Observational studies are recommended as a research method to balance the bias inherent in self-report methods (Hall & Rist, 1999) where socially desirable responding occurs (Mick, 1996). Therefore, the use of observation in research design can overcome self-reporting biases in over- or understating alcohol intake because of inadequate knowledge of how units of alcohol are measured (Rundle-Thiele, 2009) or memory bias or impairment that may happen in surveys (Coughlin, 1990). Moreover, interactions with the drinking environment such as serving practices, security, physical conditions of the venue, and promotions such as discounts on beverages can be observed via observations in natural settings, along with further possible correlates of alcohol drinking which would not be identified in self-reports. Therefore, the observation method is well suited to the current research objective of understanding drinking behaviour and its correlates in licensed premise settings.
Boote and Matthews (1999) proposed four criteria that justify the use of observation techniques:

“(1) When the phenomenon under investigation is easily observable; (2) the phenomenon under investigation is a social process or a mass activity; (3) the phenomenon under investigation occurs at a subconscious level; (4) the consumers under investigation are either unable or unwilling to communicate directly with the researcher” (p. 16, sequencing added).

Observation in study 1b, based on these principles, met all criteria established by Boote and Matthews (1999): (1) Drinking alcohol in licensed premises is easily observable; (2) Licensed venues having open public access, once consent is given by the management and patron privacy is assured, research procedures can be easily accommodated; (3) Alcohol drinking in licensed premises is a social process which has different cultural meanings and norms (Graham & Homel, 2008; Holt, 2006; Rundle-Thiele, Ball, & Gillespie, 2008), which may occur at a subconscious level from time to time as a result of drunkenness; and (4) As a result of alcohol impairment, communication with the subject can be quite difficult, or the answering process confusing or inappropriate. Consequently, the easy and open access to this mass social activity, the possibly involuntary processes occurring within patrons, and potential communication barriers that may occur in licensed premises justified observation as a suitable method. Further, although only customers and limited serving practices were objects of the observational study due to time and budget constraints, other aspects of the environment, including serving and management practices could be easily observed.

The observation instrument used in the study was adapted from an earlier study (Rundle-Thiele, 2009) and pilot tested (Please see Appendix 4). After pilot testing, some changes were made to simplify the observation instrument for ease of data collection (Please see Appendix 5). The main study was conducted in a licensed venue with the permission of the venue manager. Observers were trained for data collection by the lead researcher by a manual adapted from Graham (2000) (Please see Appendix 6). The sampling method was convenience, where observers recorded data as long as vision was clear. A distracted observer resulted in the observation of a particular person being concluded. A total of 17 observation sessions were undertaken, to constitute a total of 191 observer hours and 18 minutes over 17 days. Gender, duration of drinking episode, duration of each drink, category of beverages, smoking status, group size, buying in rounds and drinking through a straw were observed. To assess the determinants of alcohol consumption, such as
quantity consumed, and time spent in the venue, descriptive and regression analyses were conducted. The complete study including full methodological details is reported in Chapter 5.

3.3.1.1c Study 2 – Systematic literature review

Systematic literature reviews are used in social marketing interventions (Kubacki & Siemieniako, 2017) with the objective of identifying and analysing all relevant knowledge available (Truong & Dang, 2017). Recent studies indicate that reviewing past studies, with particular focus on journal articles, allows researchers to establish the current state of knowledge within a discipline and to identify any potential theoretical gaps and avenues for future research (Truong, 2014). Systematic literature reviews are used in social marketing to examine different aspects of social marketing, such as the efficacy of interventions (Gordon et al., 2006; Stead et al., 2007), and factors impacting their effectiveness (Carins, 2014; Fujihira et al., 2015; Kubacki et al., 2015). It was found in study 2 that none of the past systematic literature reviews in social marketing has examined stakeholder involvement, an aspect of interventions which is quite crucial to extending knowledge on stakeholder involvement in social marketing programs, given that multiple stakeholders are involved in social marketing efforts (Lefebvre, 2012; Truong & Dang, 2017).

The search strategy adopted for study 2 was guided by Carins and Rundle-Thiele’s (2014) systematic literature review of healthy eating interventions. A systematic search of the literature was undertaken to locate self-identified social marketing interventions published in academic peer-reviewed journals targeting alcohol harm reduction.

Seven databases were searched, namely EBSCO, Emerald, Ovid (All databases), Proquest Central, Sciencedirect, Taylor & Francis and Web of Science. The keywords used in the search are: Alcohol* or drink* AND intervention* or Randomi#ed Controlled Trial or evaluation or trial or campaign* or program* or intervention or interventions AND “social marketing” capturing research from January 2000 to May 2015. A total of 432 articles were retrieved from seven databases. Please see Appendix 7 for the list of articles included in the systematic literature review. Descriptive analysis was conducted to assess the involvement of different stakeholders in social marketing interventions. The complete study including methodological details and results is reported in Chapter 6.
3.4 Ethical clearance

The ethical application to the relevant university’s ethical committee was submitted and ethical clearance was received before data collection commenced (MKT/11/14/HREC) (Please see Appendix 8). All respondents were provided the ethical committee’s contact details, should they have had any concerns. There were no issues raised by any party during the data collection. Relevant reports to the ethical committee were submitted in a timely manner.

3.5 Summary

This project was designed as an integrated program of formative research with methodological triangulation. The results of three studies aimed to inform a social marketing intervention whose objective is to moderate alcohol drinking in licensed premises. The current chapter has outlined the research design. First, the research paradigm and philosophical positioning of the research was established as pragmatism, and its influence in the research design was explained. Then, each of the three studies comprising the body of research was described in sequence, and the purpose and research methods of each study briefly outlined. The following three chapters present each study in the following order: Chapter 4 – Study 1a: Survey; Chapter 5 – Study 1b: Covert observation; Chapter 6 – Study 2: Systematic Literature Review. Implications for future research directions are outlined in Chapter 7, along with a discussion of and conclusion to the overall formative research project findings.
Chapter 4 – (Study 1a) A solution based approach: An empirical examination of factors influencing moderate drinking practices

STATEMENT OF CONTRIBUTION TO CO-AUTHORED PUBLISHED PAPER

This chapter includes a co-authored paper which has been submitted for publication. The co-authors are: Nuray Buyucek, Dr. Kathy Knox, and Prof. Sharyn Rundle-Thiele.

Nuray Buyucek was responsible for the conceptual design and genesis of the research agenda and with the collaboration of Sharyn Rundle-Thiele. Nuray Buyucek conducted the background literature review, questionnaire development, piloting and collection of data, conducting of the preliminary data analysis, coding and categorisation of the data into a usable format, and deciding the scope and structure of the analysis. In collaboration with Kathy Knox, Nuray Buyucek conducted the analysis, modelling, and interpretation and reporting of results; prepared the manuscript with the collaboration of Kathy Knox and Sharyn Rundle-Thiele; and led the drafting of the manuscript. All authors listed contributed to and approved the final manuscript. Submission for publication and correspondence was the responsibility of Nuray Buyucek. This manuscript (revision 2) was submitted to Social Marketing Quarterly on the 13 February 2017.

22 February 2017

Nuray Buyucek                  Sharyn Rundle-Thiele                  Kathy Knox
Overview

Understanding the target audience is one of the essential steps in social marketing. Therefore, this thesis was designed as a series of formative research studies to understand alcohol consumption from different angles. The study comprising this chapter aimed to understand drinking behaviour at the individual level and answering Research question 1 which was “Which factors impact moderate drinking practices?” Alcohol expectancies, people’s self-belief towards refusing a drink, and practical actions and strategies employed to refuse a drink were investigated. Therefore, findings from this study can guide intervention design.
4.1 Abstract

A problem focus permeates social marketing practice unnecessarily stigmatizing individuals targeted for change. In contrast to previous studies where problem drinking (the problem) has been the dominant focus, the current study outlines the results of an Australian online survey that empirically examines moderate drinking practices (MDPs) (the solution) in an adult population. The study’s findings indicate that MDPs are reportedly applied more frequently by females. Confidence enhancement and sexual enhancement expectancies negatively impact MDPs and Drinking Refusal Self-efficacy (DRSE) positively impact MDPs. By taking a solution based approach social marketers can understand modifiable factors to effect the desired change. Limitations and future research directions are outlined.

**Keywords:** Expectancy theory, moderate drinking, self-efficacy, social marketing, alcohol consumption
4.2 Introduction

Worldwide alcohol consumption is equal to 13.5 grams of pure alcohol per person 15 years and older (WHO, 2014). Alcohol consumption is highest in Europe and other high income countries (WHO, 2011a) including Australia. For instance, 79% of Australian adults consume alcohol (FARE, 2015). Alcohol is one of the world’s leading health risk factors (WHO, 2009, 2011b, 2014) linked to 200 types of injuries and diseases including, cancer, heart problems, and liver cirrhosis (WHO, 2014). Alcohol causes societal harms (Laslett et al., 2010; WHO, 2011a) and social costs outweigh revenue generated from alcohol sales by two to one (Manning, Smith, & Mazerolle, 2013). Clearly excessive alcohol drinking remains a problem globally.

Social marketing is one of the behavioural change approaches that has been successfully applied to minimise alcohol related harm with excessive or binge drinking the prevailing focus (Kubacki, Rundle-Thiele, Pang, & Buyucek, 2015). Theory is one of the social marketing benchmarks (e.g. NSMC, 2008), and social marketing practitioners agree that formative research, implementation and evaluation stages should be theoretically grounded (Andreasen, 1994; Brennan, Binney, Parker, Aleti, & Nguyen, 2014; Luca & Suggs, 2013; NSMC, 2008; Truong, 2014; Truong & Dang, 2017). However, theoretically based social marketing interventions are uncommon (Lefebvre, 2001; Luca & Suggs, 2013; Truong & Dang, 2017) and theory use is not reported clearly (Truong, 2014). Truong and Dang (2017) found that only 23% of social marketing studies identified in a systematic literature review were theoretically underpinned. The Theory of Reasoned Action (Fishbein, 1979), the Theory of Planned Behaviour (Ajzen, 1985), Stages of Change Theory (Prochaska et al., 1994), the Health Belief Model (Rosenstock, 1974) have previously been applied in social marketing interventions (Truong & Dang, 2017). Each of these theories are in line with dominant downstream social marketing or micro systems views which consider understanding target group behaviour as the core of social marketing (NSMC, 2008). Given that alcohol problems remain prevalent, exploring alternative theories and their explanatory potential within the context of alcohol is warranted.

Studies focused on understanding the determinants of excessive or binge drinking dominate social marketing inquiry (Botvin, Griffin, Diaz, & Ifill-Williams, 2001b; Cooke, Sniehotta, & Schüz, 2007; Dempster, Newell, Cowan, & Marley, 2006). A problem focus permeates social marketing practice unnecessarily stigmatizing and potentially alienating individuals targeted for change. A more positively framed focus
that puts the desired behavior under the microscope may assist to create more positive perceptions for implemented social marketing campaigns, which may in turn enhance social marketing campaign effectiveness (Pang & Kubacki, 2015). The current study is a formative study that aims to take a solutions based approach and as such, aims to understand moderate alcohol drinking practices to implement a social marketing intervention. The main objective is understanding actions taken to moderate drinking and to identify potential modifiable factors. Developing a culture that accepts moderate alcohol drinking (Fry, 2010) requires understanding how alcohol is consumed in social situations and which factors may (or may not) be impacting actions taken to moderate alcohol intake through Moderate Drinking Practices (MDPs). Understanding how consumers manage consumption through MDPs and whether MDPs are impacted by consumers’ beliefs towards whether they can reject alcohol or not (i.e Drinking Refusal Self-Efficacy) (DRSE) and their expectations from alcohol drinking may offer insights that can inform the development of social marketing intervention strategies.

Prior literature is dominated by investigation of binge drinking practices (Botvin, Griffin, Diaz, & Ifill-Williams, 2001; Cooke, Sniehotta, & Schüz, 2007; Dempster, Newell, Cowan, & Marley, 2006), and harmful drinking practices (Beard et al., 2016; Miller et al., 2015), which as stated previously may be negatively impacting behavioural change attempts. As noted by Pang and Kubacki (2015, p. 84) “social marketing campaigns influence and inform the perceptions of their target audiences, as well as broader society, in relation to the problem they attempt to tackle; in turn, this impacts how these target audiences perceive future social marketing campaigns, and the social problem itself.” A solution focus such as moderate drinking avoids overstating the harm caused by alcohol as typically occurs when a problem focus, e.g. binge drinking, is taken. Further, a solution or MDP focus more clearly mirrors the majority of drinkers on the majority of occasions, which creates a closer link to the lived experiences of the majority of alcohol drinkers which in turn is anticipated to deliver higher campaign awareness and action at a target population level.

Prior social marketing studies of binge drinking have focused on students (Supski, Lindsay, & Tanner, 2016; White, Anderson, Ray, & Mun, 2016), youth (Carlin, 2016; Thrul & Kuntsche, 2016) and clinical (Hasking & Oei, 2007) population groups. Drinking practices in adult groups have received comparably less attention (Botvin, Griffin, Paul, & Macaulay, 2003; Wynn, Schulenberg, Kloska, & Laetz, 1997; Wynn, Schulenberg, Maggs, & Zucker, 2000). Furthermore, while the role of Alcohol
Expectancies (AEs) and their relation to DRSE have been considered previously (Gullo, Dawe, Kambouropoulos, Staiger & Jackson, 2010; Young, Connor, Ricciardelli, & Saunders, 2005), the relationship between DRSE and MDPs remains unexplored.

Further, the combined effects of AEs, DRSE and MDPs have not been considered in the literature to date. This paper contributes to social marketing in three ways. First, this paper empirically examines MDPs (a solution focus) to understand which practices are reportedly used. Second, this paper offers an empirical examination of the interplay between MDP, AEs and DRSE. Finally, this paper offers expectancy theory as an alternate framework extending theory use in social marketing beyond theories whose outcomes are excess drinking intentions.

4.3 Literature review

4.3.1 Alcohol expectancies – Expectancy theory
Alcohol expectancies are the positive or negative beliefs held by an individual about the effects of alcohol consumption (Brown, Goldman, Inn, & Anderson, 1980; Ham & Hope, 2003) which are developed from media exposure and the surrounding social environment during childhood (Brown et al., 1980; Ham & Hope, 2003; Lee, Oei, Greeley, & Baglioni Jr, 2003; Schlegel, Davernas, Zanna, DeCourville, & Manske, 1992; Zamboanga, Schwartz, Ham, Jarvis, & Olthuis, 2009). AEs are reported to influence drinking behaviour. For instance alcohol consumption in licensed premises (Bot, Engels, & Knibbe, 2005; Oei, Foley, & Young, 1990), binge drinking (White et al., 2016), and moderate drinking (Hasking & Oei, 2002) have all been correlated with AEs. While the impact of AEs on alcohol consumption is evident in terms of frequency of drinking (Lee & Oei, 1993), quantity consumed (Lee, Greely, & Oei, 1999), a decision to drink or not to drink (Baldwin, Oei, & Young, 1993), the impact of expectancies on practical actions to moderate alcohol drinking are unexplored. Therefore, the first hypothesis of the current study is: AEs have an impact on MDPs (H1) (Please see Figure 2).
4.3.2 Drinking refusal self-efficacy

Self-efficacy refers to an individual’s beliefs about their ability to manage or resist alcohol drinking (Engels, Wiers, Lemmers, & Overbeek, 2005; Sitharthan, Job, Kavanagh, Sitharthan, & Hough, 2003). Although considerable literature is available examining self-efficacy (Black et al., 2012; Gilles, Turk, & Fresco, 2006; Hasking & Oei, 2004), comparatively few studies have examined DRSE (Foster, Yeung, & Neighbors, 2014; Goldsmith, Thompson, Black, Tran, & Smith, 2012) – a more alcohol drinking specific concept (Baldwin et al., 1993). DRSE impacts the amount of alcohol consumed (Connor, Young, Williams, & Ricciardelli, 2000; Young, Connor, Ricciardelli, & Saunders, 2005), frequency of drinking (Baldwin et al., 1993), and differentiates low and high risk drinkers (Lee, Oei, & Greeley, 1999) in both community and clinical samples (Hasking & Oei, 2002). In addition, higher DRSE skills (i.e. refusing alcohol offered) are associated with slower rates of alcohol consumption (Scheier, Botvin, Diaz, & Griffin, 1999) indicating that DRSE and MDPs should be positively associated. If a person does not have self belief of performing an action, the behaviour is unlikely to be performed (Strecher, McEvoy DeVellis, Becker, & Rosenstock, 1986). Therefore, it was hypothesised that DRSE has a direct impact on MDPs (H2) (Please see Figure 2).

4.3.3 Moderate drinking practices

MDPs are the conscious actions to drink alcohol slowly (Fry, Drennan, Previte, White, & Tjondronegoro, 2014; Previte, Fry, Drennan, & Hasan, 2015) which reduces the likelihood of heavy episodic drinking (Kelly, Chan, & O’Flaherty, 2012). Terms such as sensible drinking (Fry, 2010; Fry et al., 2014), refusal skills (Wynn et al., 2000), responsible drinking practices (Fry et al., 2014), and resistance strategies (Alberts, Miller- Rassulo, & Hecht, 1991) have been used interchangeably. Moderate drinking
actions include rejecting a drink offered, drinking only light alcoholic content drinks or limiting the number of drinks in a particular drinking occasion (Previte et al., 2015). Prior research indicates that females have more control over their drinking (Baldwin et al., 1993) and as such women may report MDPs more frequently than males.

It is reported that DRSE mediates the relationship between AEs and problem drinking (Connor, George, Gullo, Kelly, & Young, 2011; Engels et al., 2005) and DRSEs are used in refusal skill development programs for early adolescents (Connor et al., 2011) however the mediating role of DRSE between AEs and MDPs in adult groups has not been explored. Given that DRSEs are individuals’ beliefs about their own ability to refuse alcohol, and MDPs are the refusal actions (Previte et al., 2015), it can be speculated that a belief is requisite for an action to be performed. An outcome expectancy is likely to determine MDPs. For example, if the outcome expected is negative from alcohol drinking, such as being aggressive, MDPs may be more frequently applied. However, this action cannot be undertaken if there is no self-belief about performing the action. Alcohol expectancy theory therefore proposes that DRSE is predicted by AEs if a person expects negative outcomes from alcohol consumption. While AEs play an important role in alcohol consumption behaviour, if a person feels unable to resist alcohol, he or she is likely to drink regardless of the alcohol outcome expectancy levels (Baldwin et al., 1993). Consequently, it was hypothesized that DRSE has a mediating role between MDPs and AEs (H3) (Please see Figure 2).

4.4 Method

Following ethical clearance, an anonymous online survey was pretested and cross checked for timing, accuracy and wording and small alterations were made. The survey contained DEP (Young & Oei, 1993), MDP questions (NDSHS, 2013) along with some demographics. The survey took approximately 15 minutes to complete. A convenience sampling method was employed.

4.4.1 Participants

Participants were sourced via multiple channels including an online panel who consented to be contacted for research purposes. To qualify for the online survey participants had to be 18 years and over (the legal drinking age) and they had to report going to a licensed premise within the last year. An electronic link to the survey was disseminated via personal social media networks including Facebook, Twitter, and Linkedin. A one-off
internal email broadcast that promotes research projects to students (n = 40,000) and staff (n = 5,000) at a local University was also used.

4.4.2 Measures

Previously validated scales were used in the online survey, namely, Drinking Expectancy Profile (Young & Oei, 1993) and Moderate Drinking Practices (NDSHS, 2013). Drinking Expectancy Profile (DEP) (Young & Oei, 1993) comprizes two sets of questions.

4.4.2.1 Drinking Expectancy Questionnaire Revised (DEQ-R; Lee et al., 2003)

The first part of the DEP is the Drinking Expectancy Questionnaire-Revised (DEQ-R) developed by Young and Oei (1993) and validated in (Lee et al., 2003). DEQ-R is a 37 item scale with the main question of “Your beliefs about alcohol:”, containing five subscales; four measuring positive outcome expectations; increased sexual interest “e.g. I need to avoid sex if I’ve been drinking”, tension reduction (all items were reverse scored) “e.g. When I am anxious or tender I do not feel the need for alcohol”, increased confidence “e.g. Little things annoy me less when I am drinking”, and cognitive enhancement “e.g. Drinking alcohol sharpens my mind”, and one measuring negative consequences of drinking “e.g. I feel disappointed in myself when drinking”, rated on five point scale (1=Strongly Disagree/5=Strongly Agree). Higher scores reflect stronger alcohol expectancies. Cronbach’s Alpha was .97 in a prior study (Connor et al., 2011).

4.4.2.2 Drinking Refusal Self-efficacy Questionnaire-Revised (DRSEQ-R; Oei, Hasking, & Young, 2005)

DRSEQ-R is the second part of the DEP questionnaire and was originally developed as a 31 item self-report scale (Young, Oei, & Crook, 1991) that was revisited later and validated leading to a more reliable 19 item version (Oei et al., 2005). The DRSEQ-R measures self-reported confidence to resist a drink on a 6 point scale (1=I am very sure I could not resist drinking/6=I am very sure I could resist drinking) comprising 19 items and 3 subscales (social pressure self-efficacy “e.g. When someone offers me a drink”, opportunistic self-efficacy “e.g. When I am watching TV”, emotional relief self-efficacy “e.g. When I feel frustrated”). The main question was “How sure are you that you could resist drinking alcohol?”. Higher scores reflect stronger confidence to resist alcohol (α=.94) (Foster et al., 2014).

4.4.2.3 Moderate Drinking Practices (NDSHS, 2013)

The MDP items were initially drawn from the National Drug Strategy Household Survey (NDSHS) (2013) and were validated in Kelly et al. (2012) (α = .81). Moderate Drinking
Practices were measured by seven items rated from 1 = Never to 5 = Always. The main question was “When you drink out how often do you do any of the following?” and refusal strategies such as “Counting the number of drinks”, “Deliberately alternate between alcoholic and non-alcoholic drinks” were listed. Higher scores reflected more frequent moderate drinking practices.

4.5 Findings

In total, 774 anonymous survey responses were received; 123 mainly incomplete responses were removed from the data set and one respondent under 18 years of age was excluded. Data analysis was conducted with 650 complete cases. The resulting sample comprised of Australian adults between the ages of 18 and 76 years (M = 36.9 years, SD = 14.0 years). Table 4 represents the demographic profile of the sample.

Gender differences for the MDPs were analysed (Please see Table 4). Notably, there was a significant gender difference on applying MDPs when offered an alcoholic drink t(650) = 3.47, p = .001). Female respondents reported applying more MDPs (M = 3.40, SD = 0.84) than male respondents (M = 3.20, SD = 0.74). The most commonly applied MDP for females was having non-alcoholic drinks (78.6%) and deliberately alternating between alcoholic and non-alcoholic drinks (78.6%).
### Table 4: Demographics

<table>
<thead>
<tr>
<th></th>
<th>Female (%), ( n = 401 )</th>
<th>Male (%), ( n = 249 )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td>61.7%</td>
<td>38.3%</td>
</tr>
<tr>
<td><strong>Mean age</strong></td>
<td>35.6 years (SD = 13.6)</td>
<td>39 years (SD = 14.4)</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td>Married or living with a</td>
<td>Married or living with a</td>
</tr>
<tr>
<td></td>
<td>partner (55.9%)</td>
<td>partner (56.6%)</td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td>Bachelor Degree (29.8%)</td>
<td>Bachelor Degree (26.7%)</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td>Full Time (38.1%)</td>
<td>Full Time (58.3%)</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td>$20,800 - $31,199 AUD (12.0%)</td>
<td>$104,000 AUD or more (15.8%)</td>
</tr>
<tr>
<td><strong>Main drink out</strong></td>
<td>Bottled wine (41.1%)</td>
<td>Regular strength beer (33.2%)</td>
</tr>
<tr>
<td><strong>Standard drink intake in a typical occasion</strong></td>
<td>3-4 standard drinks (54.5%)</td>
<td>3-4 standard drinks (53%)</td>
</tr>
<tr>
<td><strong>Application of MDPs</strong></td>
<td>( M = 3.4 ) (SD = 0.84)</td>
<td>( M = 3.2 ) (SD = 0.74)</td>
</tr>
<tr>
<td><strong>Count the number of drinks you have</strong></td>
<td>Always (70.3%)</td>
<td>Always (29.7%)</td>
</tr>
<tr>
<td><strong>Deliberately alternate between alcoholic and non-alcoholic drinks</strong></td>
<td>Always (78.6%)</td>
<td>Always (21.4%)</td>
</tr>
<tr>
<td><strong>Make a point of eating while consuming alcohol</strong></td>
<td>Always (72.4%)</td>
<td>Always (27.6%)</td>
</tr>
<tr>
<td><strong>Quench your thirst by having a non-alcoholic drink before having alcohol</strong></td>
<td>Always (78.6%)</td>
<td>Always (21.4%)</td>
</tr>
<tr>
<td><strong>Only drink low-alcohol drinks</strong></td>
<td>Always (65.9%)</td>
<td>Always (34.1%)</td>
</tr>
<tr>
<td><strong>Limit the number of drinks you have in an evening (e.g. when driving)</strong></td>
<td>Always (68.6%)</td>
<td>Always (31.4%)</td>
</tr>
<tr>
<td><strong>Refuse an alcoholic drink you are offered because you really do not want it</strong></td>
<td>Always (75.8%)</td>
<td>Always (24.2%)</td>
</tr>
</tbody>
</table>

Each item was analysed to determine normality using the Kolmogorov-Smirnov test. The distribution of data was significantly positively skewed (Coefficient of Skewness = 8.31, Kolmogorov-Smirnov test \( p < .001 \)). The deviation from normality was expected due to size of the sample.

Survey data was analysed in AMOS Version 21 (Byrne, 2016) using the two-step approach to Structural Equation Modelling (Shadfar & Malekmohammadi, 2013). The first step is measurement model validation through Confirmatory Factor Analysis (CFA) and the second step is fitting the structural model to ensure construct, discriminant and convergent validity (Hair, Black, Babin, Anderson, & Tatham, 2006). Details of the final factor loadings are presented in Table 5.
<table>
<thead>
<tr>
<th>Construct</th>
<th>Wording</th>
<th>Loadings</th>
<th>C.R</th>
<th>S.E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Confidence Enhancement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social confidence</td>
<td>Little things annoy me less when I'm drinking</td>
<td>.563</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drinking makes me more sexually responsive</td>
<td>.674</td>
<td>11.33</td>
<td>1.23</td>
</tr>
<tr>
<td></td>
<td>I have more self-confidence when drinking</td>
<td>.835</td>
<td>12.35</td>
<td>1.50</td>
</tr>
<tr>
<td></td>
<td>Drinking makes me feel outgoing and friendly</td>
<td>.764</td>
<td>12.31</td>
<td>1.21</td>
</tr>
<tr>
<td></td>
<td>I often feel sexier after I've been drinking</td>
<td>.595</td>
<td>10.92</td>
<td>1.06</td>
</tr>
<tr>
<td>Carelessness</td>
<td>I am less discreet if I drink alcohol</td>
<td>.660</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am less concerned about my actions when I'm drinking</td>
<td>.781</td>
<td>14.99</td>
<td>1.26</td>
</tr>
<tr>
<td></td>
<td>I am clumsier when drinking alcohol</td>
<td>.469</td>
<td>10.17</td>
<td>0.62</td>
</tr>
<tr>
<td></td>
<td>I tend to adopt a “who cares” attitude when drinking</td>
<td>.692</td>
<td>14.01</td>
<td>1.04</td>
</tr>
<tr>
<td><strong>Sexual Enhancement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I lose most feelings of sexual interest after I’ve been drinking</td>
<td>.894</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drinking alcohol removes most thoughts of sex from my mind</td>
<td>.669</td>
<td>16.22</td>
<td>0.71</td>
</tr>
<tr>
<td></td>
<td>I tend to avoid sex if I’ve been drinking</td>
<td>.718</td>
<td>17.21</td>
<td>0.85</td>
</tr>
<tr>
<td><strong>Cognitive Enhancement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drinking alcohol sharpens my mind</td>
<td>.867</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am more aware of what I say and do if I’m drinking alcohol</td>
<td>.403</td>
<td>9.62</td>
<td>0.53</td>
</tr>
<tr>
<td></td>
<td>Drinking helps me be more mentally alert</td>
<td>.836</td>
<td>16.72</td>
<td>0.93</td>
</tr>
<tr>
<td><strong>Negative Expectancies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am powerless in the face of alcohol</td>
<td>.581</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I feel that drinking hinders me in getting along with other people</td>
<td>.475</td>
<td>10.17</td>
<td>0.89</td>
</tr>
<tr>
<td></td>
<td>I cannot always control my drinking</td>
<td>.423</td>
<td>10.68</td>
<td>0.96</td>
</tr>
<tr>
<td></td>
<td>Drinking increases my aggressiveness</td>
<td>.715</td>
<td>13.64</td>
<td>1.41</td>
</tr>
<tr>
<td></td>
<td>Drinking makes me feel like a failure</td>
<td>.753</td>
<td>14.07</td>
<td>1.33</td>
</tr>
<tr>
<td></td>
<td>Drinking brings out the worst in me</td>
<td>.787</td>
<td>14.44</td>
<td>1.45</td>
</tr>
<tr>
<td></td>
<td>Drinking makes me feel more violent</td>
<td>.738</td>
<td>14.69</td>
<td>1.28</td>
</tr>
<tr>
<td></td>
<td>I feel disappointed in myself when drinking</td>
<td>.713</td>
<td>13.62</td>
<td>1.36</td>
</tr>
<tr>
<td><strong>DRSE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunistic</td>
<td>When I first arrive home</td>
<td>.864</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>When I am watching TV</td>
<td>.833</td>
<td>27.20</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>When I am listening to music or reading</td>
<td>.834</td>
<td>27.24</td>
<td>0.91</td>
</tr>
<tr>
<td></td>
<td>When I am by myself</td>
<td>.815</td>
<td>26.19</td>
<td>0.95</td>
</tr>
<tr>
<td></td>
<td>When I am at lunch</td>
<td>.808</td>
<td>25.81</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>When I am on the way home from work</td>
<td>.749</td>
<td>22.86</td>
<td>0.79</td>
</tr>
<tr>
<td>Social Pressure</td>
<td>When my friends are drinking</td>
<td>.936</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>When I am at a pub or club</td>
<td>.882</td>
<td>33.99</td>
<td>0.99</td>
</tr>
<tr>
<td></td>
<td>When my spouse or partner is drinking</td>
<td>.838</td>
<td>30.64</td>
<td>0.85</td>
</tr>
</tbody>
</table>
All constructs were tested in CFA prior to estimation of the full measurement model. Some error items were covaried to improve model fit. For example, error terms were covaried on “Drinking makes me feel more violent” and “Drinking increases my aggressiveness” due to similar wording.

Convergent and discriminant validity were assessed (Table 6). Negative Expectancies and MDPs were below the .46 and .39 AVE threshold (.50), and all remaining constructs were above the 0.7 CR threshold. Taken together, the measurement model was deemed acceptable given expected structures were in line with previous studies (Fry et al., 2014; Malhotra & Dash, 2011).

Square root of the AVE and all inter-factor correlations were compared and discriminant validity was evident given values (shown in bold on the diagonal) were greater than the correlations with the exception of tension reduction (Please see Table 6). All Tension Reduction indicator items had weak intercorelations and their internal consistency were not deemed to be acceptable therefore, tension reduction was excluded from subsequent analysis.
Table 6: Validity indicators

<table>
<thead>
<tr>
<th></th>
<th>CR</th>
<th>AVE</th>
<th>MDP</th>
<th>COG</th>
<th>SEX</th>
<th>NEX</th>
<th>CONENH</th>
<th>DRSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDP</td>
<td>.81</td>
<td>.39</td>
<td>.62</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COG</td>
<td>.76</td>
<td>.53</td>
<td>-06</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEX</td>
<td>.80</td>
<td>.58</td>
<td>-07</td>
<td>-35</td>
<td>.76</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NEX</td>
<td>.85</td>
<td>.43</td>
<td>-07</td>
<td>.43</td>
<td>-45</td>
<td>.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONENH</td>
<td>.79</td>
<td>.65</td>
<td>-35</td>
<td>.02</td>
<td>.02</td>
<td>.25</td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td>DRSE</td>
<td>.77</td>
<td>.65</td>
<td>.28</td>
<td>-22</td>
<td>.05</td>
<td>-18</td>
<td>-.53</td>
<td>.80</td>
</tr>
</tbody>
</table>


Model fit was investigated. Due to sample size the $\chi^2$/df was examined (Hair et al., 2006). $\chi^2$/df was 3.11 indicating a good fit (Hu & Bentler, 1999). The Comparative Fit index (CFI), and Root-Mean-Square Error of Approximation (RMSEA) were also examined and represented a moderate fit to the data, $\chi^2 = 2145.4$, df = 680, $\chi^2$/df = 3.1, $p < .01$, GFI = .85, CFI = .88, RMSEA = .05.

4.5.1 Hypothesis testing

The sample size (n = 650) was considered sufficient to meet the minimal requirement for Structural Equation Modelling (Kline, 1998). The Maximum Likelihood method was used for model estimation. The results of the SEM revealed that the model offered moderate fit ($\chi^2 = 2226.31$, df = 683, $\chi^2$/df = 3.2, $p < .01$, GFI = .84, CFI = .87, RMSEA = .05). Figure 3 represents the full structural model.

Direct effects of AEs on MDPs were examined first. Confidence Enhancement and Sexual Enhancement expectancy had direct negative impacts on reported MDPs ($\beta = -.272$, $p = .001$; $\beta = -.088$, $p = .045$ respectively) while no effects were observed for remaining AE constructs. Therefore, $H_1$ was partly accepted (Please see Table 7).
Table 7: Standardized regression weights and p-values for hypothesized models (H₁ and H₂)

<table>
<thead>
<tr>
<th>Hypothesized path</th>
<th>Standardized regression weight</th>
<th>p-value</th>
<th>Supported at p &lt; 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual Enhancement → MDPs</td>
<td>-0.088</td>
<td>0.045</td>
<td>✓</td>
</tr>
<tr>
<td>Confidence Enhancement → MDPs</td>
<td>-0.272</td>
<td>0.000</td>
<td>✓</td>
</tr>
<tr>
<td>Cognitive Enhancement → MDPs</td>
<td>-0.017</td>
<td>0.712</td>
<td>NO</td>
</tr>
<tr>
<td>Negative Expectancies → MDPs</td>
<td>-0.029</td>
<td>0.511</td>
<td>NO</td>
</tr>
<tr>
<td>DRSE → MDPs</td>
<td>0.135</td>
<td>0.024</td>
<td>✓</td>
</tr>
</tbody>
</table>

When DRSE’s direct impact on MDP was examined a significant positive impact was observed, β = 0.135, p < 0.001). Subsequently, H₂ was accepted (Please see Table 7). Next, the mediating effect of DRSE was tested and direct and indirect effects were examined with 2000 bootstrap samples with 95 % bias corrected confidence intervals. None of the constructs had a significant Beta for the indirect path. Thus, there was no mediation of DRSE between AEs and MDPs (Please see Table 8). Thus, Hypothesis 3 was not supported by the data.
Figure 3: Full structural model

CARELESS: Carelessness
COGNITIVE: Cognitive enhancement
CONFIDENCE: Social confidence
CONFIDENCE: Confidence enhancement
DROP: Drinking refusal-opportunistic
DRSE: Drinking refusal self-efficacy
DRSP: Drinking refusal social pressure
MDP: Moderate drinking practices
NEX: Negative expectancies
### Table 8: Hypothesis 3 mediation test

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Direct Beta without Mediator</th>
<th>Direct Beta with Mediator</th>
<th>Indirect Beta</th>
<th>Mediation type observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence Enhancement→ DRSE→ MDP</td>
<td>$\beta = -0.216$</td>
<td>$\beta = -0.241$</td>
<td>$p = 0.106$</td>
<td>No mediation</td>
</tr>
<tr>
<td>Sexual Enhancement→ DRSE→ MDP</td>
<td>$\beta = -0.098$</td>
<td>$\beta = -0.097$</td>
<td>$p = 0.766$</td>
<td>No mediation</td>
</tr>
<tr>
<td>Cognitive Enhancement→ DRSE→ MDP</td>
<td>$\beta = 0.028$</td>
<td>$\beta = 0.043$</td>
<td>$p = 0.093$</td>
<td>No mediation</td>
</tr>
<tr>
<td>Negative Expectancies→ DRSE→ MDP</td>
<td>$\beta = -0.026$</td>
<td>$\beta = -0.015$</td>
<td>$p = 0.081$</td>
<td>No mediation</td>
</tr>
</tbody>
</table>

### 4.6 Discussion

The objective of the current study was to understand whether alternate theoretical perspectives (AEs, DRSE and MDPs) may offer potential to deliver insights to inform social marketing intervention planning. Taking a solution focus, this study explored interactions between AEs, DRSE and MDPs and contributes to social marketing literature in three ways. First, this paper empirically examined MDPs to understand which practices are reportedly used. Second, the current study explored interactions between AEs, DRSE and MDPs. Third, this paper offered an alternative theoretical approach beyond theories that outcomes are drinking intentions.

There is limited quantitative evidence of MDPs in the literature and the current study contributes to literature by empirically examining MDPs in an adult sample. The finding that MDPs are more frequently applied by females highlights practical solutions that may be received more positively compared to demarking messages of risky drinking by the individuals targeted for change. For example, licensed premises may offer non alcoholic alternatives including non alcoholic cocktails and mocktails, low alcohol drinks and prominent water sitations to encourage MDPs.

In terms of AEs, confidence enhancement and sexual enhancement have direct negative effects on MDPs which suggest that alcohol is consumed for sexual and confidence enhancement in social situations which is consistent with the prior literature (Engels et al., 2005). In prior studies positive expectancies have been associated with higher alcohol consumption in students (Oei & Jardim, 2007), among the general population (Brown et al., 1980), and in social drinking settings occuring in licensed premises (Bot et al., 2005). The negative link between expectancies and moderate drinking practices suggests that social marketers need to be able to deliver social interaction programs where alcohol consumption can be avoided while delivering opportunities for people to interact.
The results indicated that DRSE had a direct and positive impact on MDPs, which is consistent with the previous literature (Fry, 2010; Lee & Oei, 1993). It was previously stated that self belief of performing an action impacts likelihood of performing the action (Strecher et al., 1986). Therefore, resistance beliefs (self-efficacy) of adults should be the focus of any downstream (micro) level social marketing program to deliver behavioural change, specifically moderate drinking practices. Self-efficacy, or one’s own belief that they can refuse alcohol, therefore needs to be increased in order to moderate drinking in licensed premises. Many alcohol drinking demarketing messages (an applied strategy in social marketing) involve negative messages and graphic images of negative consequences of alcohol (Previte et al., 2015b) which may not engage or be viewed favourably by individuals targeted for change. In contrast, a self-efficacy approach provides a more constructive social marketing approach and requires that strategies are put in place to support positive MDP role models. In turn, moderate drinking role models would be expected to influence lower self-efficacy counterparts. Strategies to support MDPs were referred to earlier and include (but are not limited to) increasing water stations (place) and supply in licensed premises (product), provision of additional low alcohol or no alcohol beverages (product) and pricing and promotional discount offers that ensure mocktails and no alcohol beverages are priced more favourably than their alcohol counterparts.

In addition, this study sought to empirically examine the combined effects of AEs, DRSE and MDPs. While selected AEs impact MDPs, DRSE may not play a mediating role. Contradicting evidence was observed in the literature (Connor et al., 2011; Engels et al., 2005) suggesting that additional examination is warranted to understand the interplay of expectancies, refusal self efficacy, and moderate drinking practices.

Finally, theory application in social marketing was extended with application of Expectancy Theory. While application of theory in social marketing interventions is recommended (NSMC, 2008), reports of theory use in social marketing interventions remains uncommon (Truong & Dang, 2017). Theory usage should guide intervention design and different theories applied in social marketing interventions (Brennan et al., 2014) may enhance our understanding of behavioural change mechanisms. The current study contributes to knowledge offering an empirical examination of Expectancy Theory demonstrating which factors (e.g. DRSE and sexual and confidence enhancement are related to MDPs) delivering actionable insights that could be used by social marketers in intervention design and planning.
Alcohol expectancies were partially related to MDPs suggesting alternate theoretical perspectives (e.g. Self-Efficacy Theory) are warranted. This study indicates that DRSE is positively related to MDPs and as such focus on DRSE in intervention design and planning is recommended. Self-efficacy, or one’s own belief that they can refuse alcohol in a variety of social and built environment settings, needs to be increased in order to moderate drinking in licensed premises. Mandatory menu components can be introduced via policy level including mandatory low alcohol drinks, low alcohol cocktails and non alcoholic soft drinks and mocktails which can also encourage, assist and support MDPs.

The interaction between AEs, DRSE and MDPs was investigated for the first time in one adult convenience sample and as such the results of this study should be interpreted with caution. The study needs to be extended into other adult populations before definitive conclusions are drawn. In addition, considering that self-reporting techniques have their own limitations such as social desirability bias and inaccuracy in recall (Carins, 2017), future research designs should take this limitation into account. Studies that rely on more objective measures are encouraged. The measures used in this study were drawn from previous studies and the factorial structure observed in the current study did not replicate previous studies. Consequently the measures need further development to ensure validity in future studies. Finally, the current study is individual focused limiting insights gained to social marketing’s downstream. Social marketing understanding has evolved and today we know that individuals are influenced by the social and built environments surrounding them (Brennan, Previte, & Fry, 2016; Carins, Rundle-Thiele, & Fidock, 2016). Therefore, it is recommended that environmental determinants of alcohol consumption such as group dynamics, group size, and serving practices should be investigated to gain a robust picture of alcohol consumption in licensed premises that extends beyond the dominant downstream focus that continues to prevail in social marketing research and practice.

4.7 Conclusion

This paper reports one formative research study that aims to understand how alcohol consumption in licensed premises can potentially be moderated. While excessive drinking has attracted wide attraction from scholars (Botvin et al., 2001; Cooke et al., 2007; Dempster et al., 2006; Elliott & Ainsworth, 2012; Hagger et al., 2012), MDPs have received comparably less attention (Fry et al., 2014; Previte et al., 2015). Theory is acknowledged as a social marketing benchmark (NSMC, 2008) yet reported use of theory in social marketing interventions is often unclear (Truong, 2014). Application of Expectancy Theory has not previously been reported in the social marketing literature.
The current study investigated the relationship between, MDPs, AEs and DRSE. The explanatory study’s results revealed that MDPs are more frequently applied by females. Quenching thirst by having non-alcoholic drinks, deliberately alternating between alcoholic and non-alcoholic drinks, refusing an alcoholic drink when offered were frequently reported by females. MDPs are impacted by confidence and sexual enhancement expectancies which shows that people drink to enhance sexual and self-confidence. A statistically significant direct relationship between DRSE and MDPs was observed. Findings of this study can be used to guide intervention design.
4.8 References


Chapter 5 – (Study 1b) Observing alcohol drinking in licensed premises: A covert observation social marketing case study

**STATEMENT OF CONTRIBUTION TO CO-AUTHORED SUBMITTED PAPER**

This chapter includes a co-authored paper. The authors are Nuray Buyucek, Dr. Kathy Knox and Prof. Sharyn Rundle-Thiele.

The study was designed by Nuray Buyucek with support from Sharyn Rundle-Thiele. Sharyn Rundle-Thiele and Nuray Buyucek cooperated on the design, development and pilot testing of the observation instrument. Organisation of the venue, research agenda, training research assistants, conducting operations in the venue was led by Nuray Buyucek. Sharyn Rundle-Thiele contributed providing direction on the scope and she provided mentorship when required during the data collection stage. Nuray Buyucek was responsible for gathering the data, as well as computer programming, data cleaning, preliminary data analysis, literature review, and reporting results in the manuscript format. Kathy Knox provided advice on data cleaning and statistical analysis and reporting. Nuray Buyucek was responsible for leading manuscript preparation and correspondence with the journal, and revised the manuscript in collaboration with Kathy Knox and Sharyn Rundle-Thiele. The final manuscript is approved by all authors. This manuscript (revision 2) was submitted to Journal of Social Marketing on the 23 February 2017.

23 February 2017

Nuray Buyucek         Sharyn Rundle-Thiele         Kathy Knox
Overview

Behaviour is not always logical, and many unnoticed factors impact behaviour. Alcohol consumption behaviour via self-reported survey was investigated in the previous study. Since behaviour change is, however, very complex and impacted by the environment in which a behaviour occurs, understanding the environmental predictors of alcohol consumption is equally as important as understanding the expectations and behaviours of individuals. In fact, serving and management practices in licensed premises are known to influence alcohol consumption. Therefore, the following study is designed to explore the factors that impact alcohol consumption in a natural setting, and that are likely to provide a more detailed picture of on premise alcohol consumption which answers the Research question 2; “What are patrons’ drinking patterns and influential factors of alcohol consumption in licensed premises?”
5.1 Abstract

**Purpose:** This paper aimed to examine the role of social factors and individual factors on alcohol drinking in a licensed premise.

**Design/Methodology/Approach:** An unobtrusive covert systematic observational study of 632 licensed premise patrons was conducted during May 2015.

**Findings:** Convergence between genders was observed with females drinking as much and as long as males. 57.9% of patrons drank 2 and more servings, exceeding daily recommended amounts. Social factors such as group size are more influential on drinking than individual factors such as gender and smoking status. Serving practices such as straws and buying drinks in rounds influence the quantity of alcohol consumed.

**Research limitations/implications:** The study focussed on one licensed premise. Replication of the method outlined in the current study in different licensed venues, states and countries will permit the role of policy, drinking environments, and drinking cultures to be understood.

**Practical implications:** Drinking patterns of both genders are converging. Thus, intervention efforts should target both genders.

**Originality/Value:** This paper contributes a structured observation protocol that extends our understanding of alcohol drinking beyond quantity by incorporating observation of duration of consumption for each serve, permitting identification of social and environmental factors that can be used to lower licensed premise alcohol drinking.

**Keywords:** Social marketing, alcohol consumption, observation, licensed premises, formative research
5.2 Introduction

Alcohol is widely consumed for different purposes, including celebration, relaxation (Graham and Homel, 2008) or habit (Butt et al., 2011). Excessive alcohol consumption causes harm both at the individual (micro level) and societal (meso and macro) levels (Laslett et al., 2010). Addiction, disease and injuries are risks individuals face (WHO, 2014) while productivity loss at the work place, violence, and costs to the judicial and medical systems are factors that extend to impact friends, family and society (Manning et al., 2013). Given that alcohol consumption causes harms across levels, research attention to investigate the volume consumed and drinking patterns is warranted to gain insights and inform future behavioural change efforts.

A recent literature review indicates that downstream social marketing dominates behavioural change efforts to minimize alcohol harm (see Kubacki et al., 2015); an issue that extends beyond the context of alcohol (see Truong and Dang, 2017). Social marketing has evolved from a sole focus on individuals (Luca and Suggs, 2013; Truong, 2014) to the adoption of larger system views taking into account the meso and macro level in intervention design (Hoek and Jones, 2011). In order to take structural and social factors into account during intervention planning, formative research methods in social marketing must extend beyond self-report methodologies. Yet, examination of the social marketing literature indicates an over reliance on self-report methodologies including surveys, focus groups and interviews (Rundle-Thiele et al., 2013) that remains current today (Kubacki and Rundle-Thiele, 2017). As noted by Carins, Rundle-Thiele and Fiddock (2016), reliance on self-report methods may constrain understanding and insight gained during formative research. Alternate perspectives may be needed to generate a broader understanding of the consumer and the context in which they behave.

The current study is driven by dual needs. First, in response to the need to move marketing upstream (Hoek and Jones, 2011) this study aims to extend beyond the individual targeted (micro level) (Wymer, 2011) to understand whether important others and the environment surrounding the individual (meso and in time macro levels) can be considered simultaneously. Simultaneous consideration of micro, meso and macro level factors may assist to guide intervention design by indicating the areas of change that are most likely to assist in the delivering the desired behavioural change. Secondly, an innovative research methodology, namely covert observation, is applied to consider the individual, social and serving practice factors that impact alcohol drinking patterns.
5.3 Literature Review

Several methods have been employed to measure alcohol consumption. At the macro level, crops used to produce alcohol, production and/or taxation information (Smith and Mitry, 2006; WHO, 2000), and sales data gathered from national governments (Smith et al., 1999; WHO, 2000) give insights into alcohol consumption. However, data gathered from taxation, sales or production may not reflect the 28.6% of alcohol consumption that is predicted to be unrecorded home-made alcohol (WHO, 2011a), which is the biggest source of alcohol in some countries (WHO, 2007, 2011b). Home production as a measurement issue varies across countries, for example higher levels of recorded consumption in highly regulated environments like Australia might be more accurate compared to low regulation environments with higher levels of home-brew occur (e.g. in the Republic of Moldova 6.3 is recorded and 10.5 is unrecorded) (WHO, 2014). Alcohol smuggling, duty free purchases and imported alcohol are not usually included in government statistics (WHO, 2000) further limiting any national estimates. In addition, cellared beverages including wines and whiskey may not be consumed in the year purchased. Breakages during delivery or cellaring process are not recorded. Therefore, methods used to determine the volume of alcohol supply at the macro level will not provide accurate estimates of alcohol drinking at the individual level.

At the micro level, self-reported data gathered from surveys (Gullo et al., 2010; Previte et al., 2015), depth interviews (Rivara et al., 2011), and focus groups (Kubacki et al., 2011) dominate consumer research. Correlation of different drinking patterns such as volume (Harrison, 2011) and frequency of alcohol consumption (White et al., 2016), with various demographics have been investigated through self-reported methodologies (WHO, 2007). However, self-reported survey responses may underestimate the quantity of alcohol consumed (Larsen et al., 2012a) by 40-60% less than supply-based predictions (Rundle-Thiele, 2009; WHO, 2011a). Underestimation of alcohol consumption in self-reported methodologies might be driven by various reasons. The impacts of alcohol on the central nervous system are well known (Eckardt et al., 1998; Ryback, 1971) with memory loss (Ryabinin, 1998) and blackouts (Lee et al., 2009) impacting estimations (Birnbaum et al., 1978) which may lead to inaccuracy or “recall bias” (Coughlin, 1990). Limited or inaccurate knowledge of drinking units may further contribute to the weakness of self-reported estimates (Rundle-Thiele, 2009). Difficulty in defining standard drinks has been reported by several researchers (Kerr and Stockwell, 2012; White et al., 2005). Moreover, self-reported research may have limited potential to gather environmental
clues including the atmosphere of the venue, presence of games, or availability of food, which are known to impact alcohol consumption (Clapp et al., 2007). An alternative source of bias in self-reporting may be social pressure to under report, particularly given the prevalence of health campaigns targeting alcohol consumption (Aiken and West, 1990).

Observational research has been employed to investigate alcohol consumption to minimize the discrepancy between actual and claimed consumption behaviour (Rundle-Thiele, 2009). Further, observations have been used to observe alcohol related violence (Graham et al., 2000; Roberts, 2007), impacts of activities in the bar environment on alcohol consumption (Bot et al., 2007), and intervention outcomes (Warpenius et al., 2010) have been investigated via observations both in natural (Graham et al., 2006) and artificial settings (Bot et al., 2007).

Observations carried out in artificial settings have important limitations. Laboratory observations are susceptible to the Hawthorne effect (McCarney et al., 2007), a reactive change in behaviour when participants know they are being observed (e.g. Wickstrom and Bendix, 2000). Hawthorne effects can pose a serious limitation to investigations of actual drinking behaviour if consumption is impacted by the setting (Spijkerman et al., 2010). Participants may even feel obliged to drink (Larsen et al., 2012a). Artificial settings cannot replicate natural settings (Bot et al., 2005) and important meso level social factors that influence drinking behaviour can be missed such as the atmosphere of the premise (Homel et al., 2004), the impact of group size (Oostveen et al., 1996) and interactions between people (Engels et al., 2009) such as buying in rounds (Knibbe et al., 1993). Taken together, the ecological validity of research conducted in bar laboratories is somewhat questionable (Bot et al., 2005; Spijkerman et al., 2010).

In natural drinking environments, covert structured observations can be employed to overcome problems caused by self-report bias and laboratory settings (Larsen et al., 2012b), and may provide better insights for researchers. For example, in previous covert observation studies, researchers have captured alcohol supply to minors (Willner et al., 2000), alcohol-related violence (Graham et al., 2005) and on premise alcohol consumption behaviour (Rundle-Thiele, 2009). Although they can be labour intensive (Boote and Mathews, 1999) and expensive (Clapp et al., 2007), field observations have greater ecological validity (Clapp et al., 2007) and rich contextual cues can be gathered.
Alcohol consumption is impacted by servers’ behaviour (Costello et al., 2011), peer pressure (Larsen et al., 2012a), alcohol availability (Chikritzhs et al., 2007a), alcohol promotions (Hughes et al., 2011) and policy (Wilkinson et al., 2016), suggesting that several factors shape the drinking landscape (Hoek and Jones, 2011). Influencing factors can be grouped into interpersonal (micro) factors such as education, income, knowledge, attitudes, personality traits (Stokols, 1996); community level (meso) factors such as contextual setting (Hughes et al., 2011), and organisational factors (macro) such as regulation, law and public policy (Chikritzhs et al., 2007b).

At the meso level, management and serving practices provide the drinking environment to customers (Hughes et al., 2011), while poor management practices attracts problematic customers (Quigley et al., 2003). Specific practices such as food serving are linked to less intoxication and aggression (Hughes et al., 2011). Straight shaped glasses slow drinking rate by 60% compared to curved glasses (Attwood et al., 2012). In-venue alcohol promotion is linked to higher drinking levels (Hughes et al., 2011). People who drink through a thin straw perceived their consumption to be greater than those who drink through a thick straw (Lin et al., 2013).

A deeper understanding of the factors that influence alcohol consumption can facilitate and encourage positive behaviours (Stokols, 1996). Therefore, unobtrusive covert observations warrant further application as a research method. By observing behaviour covertly links between environmental determinants of alcohol behaviour can be uncovered where people act in an unconscious manner (Boote and Mathews, 1999). Thus, insights can be gained to inform the development of social marketing interventions in licensed premises.

Given the relatively high levels of alcohol consumption in Australia, there is a need for continued efforts to lower alcohol drinking (AIHW, 2014). Any intervention effort driven by inaccurate data may cause ineffective intervention development (Clapp et al., 2007). Therefore, in order to develop effective intervention strategies, data gathered from real life settings may be required.

The current study aims to a) extend formative research focus beyond the micro contextual factors i.e the individual targeted to understand meso and macro contextual factors, i.e the important others and the environment surrounding the individual, and b) employ innovative research methodologies to extend our understanding of alcohol drinking in licensed premises. The current study aims to simultaneously consider and quantitatively
investigate the influential role of social factors (group size, serving practices) and individual demographic factors (gender and smoking status) when covertly observing alcohol consumption to gain insights that could form intervention planning and design.

5.4 Method
Covert observation was applied to capture alcohol drinking behaviour, contextual factors and serving practices. The method was preferred to overcome modification of behaviour which may impact validity of the research outcomes (Clapp et al., 2007). Therefore, real data can be gathered where consumers are relaxed and actual drinking behaviour can be captured without any alteration made by consumers. Further, impacts of environmental factors can be recorded. The following sections report on the preparation, procedures and implementation of the study.

5.4.1 Venue
The venue was selected based on convenience and availability. The venue is a commercial licensed premise in the heart of an entertainment district in South East Queensland, Australia. Ethical approval was obtained from the university’s ethical committee to observe public behaviour in a public space subject to the granting of permission from the venue manager. The venue manager provided written consent for the conduct of covert observations in the licensed premise. There are four fully functioning bars in the venue. The current study focused only on the beer garden – the largest and the main attraction point of the venue. The beer garden is located outdoors and operates day and night. The day operations include take away coffee customers, serving lunch to professionals who are working in nearby offices and alcohol service. At night the venue is popular and features live music, open air cinema, and a DJ.

5.4.2 Materials
A structured observation instrument\(^2\) was adapted from a previous observation study aiming to understand alcohol consumption (Rundle-Thiele, 2009) and was refined during pilot testing. Some variables were added to the original observation instrument including drinking duration for each unit and straw usage as it was noticed during pilot testing that, straw users drank faster than non-straw users. Table 9 summarizes the variables observed and their definitions.

---
\(^2\) Please see Appendix 4 and 5
Table 9: Variables observed in the main study with definitions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Episode</td>
<td>Full; partial</td>
<td>Records the patron from the minute they enter the venue until they leave (full); Recording less than full (partial), e.g., patron was already on premise when the observer arrived or the observer left the venue while the patron remained</td>
</tr>
<tr>
<td>Gender</td>
<td>Male; Female; Other</td>
<td>Based on physical cues such as physical appearance, clothing, shoes and make-up.</td>
</tr>
<tr>
<td>Duration of episode</td>
<td>Minutes</td>
<td>Number of minutes between patron entering and patron departing the venue</td>
</tr>
<tr>
<td>Duration of each drink</td>
<td>Minutes</td>
<td>Observed time taken for patron to completely consume a serving unit</td>
</tr>
<tr>
<td>Category of beverage</td>
<td>Beer/cider; wine; spirit/cocktail; non-alcoholic; water</td>
<td>Probable category of beverage*</td>
</tr>
<tr>
<td>Serving size</td>
<td>Millilitres</td>
<td>Volume of the container a beverage was served in e.g., wine glass (150ml); pot (285 ml); can (375 ml); bottle (330-375 ml); schooner (425 ml); pint (570 ml)</td>
</tr>
<tr>
<td>Smoking</td>
<td>Yes; No</td>
<td>Report of whether the patron smoked while drinking</td>
</tr>
<tr>
<td>Group size</td>
<td>Number</td>
<td>Number of people patron was associating with</td>
</tr>
<tr>
<td>Buying in rounds</td>
<td>Yes; No</td>
<td>Round: one patron purchases a drink for self and all others.</td>
</tr>
<tr>
<td>Drinking through a straw</td>
<td>Yes; No</td>
<td>Patron drank beverage through a drinking straw (applied only to spirits or cocktails)</td>
</tr>
</tbody>
</table>

* Observers inferred category of beverage from visual cues and verified with staff when necessary.

5.4.3 Procedure

The lead researcher and eight trained observers conducted observations in the licensed premise. Under guidance of the lead researcher, observers visited the venue to familiarise themselves before commencing data collection. During this visit, observers were trained using an observation manual adapted from Graham (2000) to recognize drink sizes and types, and identified the best observation vantage points for the study to avoid risky situations for the observing team. When observers were unsure about any variable or observed drink, team member communication was encouraged. Venue serving staff assisted to clarify information for observers when asked and assisted in issues such as the identification of beverages in cocktails. To ensure inter-rater reliability, 5% of
observations were recorded and compared by two researchers. There was 98% agreement. Minor discrepancies in timing and number of group members were a result of the fast pace of the drinking environment and visual blockages.

Convenience sampling was employed. Observers chose patrons to observe according to their location. Wherever possible, observers aimed to maximize the number of patrons that could be observed simultaneously. Data were recorded using a combination of pen and paper and electronic devices (tablets and smartphones). All items in the instrument required minimal interpretation and data was recorded quantitatively using codes (Jones and Somekh, 2005). Data was later entered into SPSS 22 by the lead researcher.

Observations were conducted during the day (12:00 pm to 4:59 pm) and night (from 5:00 pm to 12:00 am) across 17 days as shown in Table 10. Although observers were careful to remain covert and naturalistic, when patrons (n = 3) approached observers and questioned their activity, the purpose of the study was explained. The patron was offered to nominate that their data be excluded. In all instances this offer was declined and observation continued.

**Table 10:** Distribution of observation sessions (May 2015)

<table>
<thead>
<tr>
<th></th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Night</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

5.4.4 Coding

Observations were recorded as either full or partial episodes. A full episode was defined as a complete recording of the patron’s observable actions from the minute he/she arrived at the venue through to leaving the venue (Please see Table 9). If the observer had a disrupted view of the patron or if the observer was unable to track further actions the observation was concluded and the observation was considered a partial episode.

Data regarding units of alcohol was recorded quantitatively in serving units (for example number of glasses, cans, pots, etc). One glass of wine was counted as one serving unit rather than attempting to calculate alcohol content (e.g. a typical pour of wine is between 1.4 and 1.8 standard drinks) therefore drinking quantities observed are conservative.
5.5 Results

5.5.1 Descriptive statistics

Observations were undertaken for a total of 191 hours and 18 minutes and included 20 observation sessions over 17 days (Please see Table 10). Details of the descriptive statistics are outlined in Table 11. There was no significant association between gender and whether the episode was full or partial ($\chi^2 (N = 604, df = 1) = 0.81, p = .368$). Therefore, full and partial observations were combined and analysed together for the purpose of this study ensuring that drinking quantities observed are conservative.

**Table 11: Descriptive statistics**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Descriptives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time spent in the venue</td>
<td>Mean 84 minutes</td>
</tr>
<tr>
<td>Episode length</td>
<td>Mean 80 minutes</td>
</tr>
<tr>
<td>Episode range</td>
<td>Minimum 6 minutes, Maximum 480 minutes</td>
</tr>
<tr>
<td>Types of episodes</td>
<td>Partial 102 (16.1%), Full 530 (83.9%)</td>
</tr>
<tr>
<td>Observed patrons</td>
<td>(N=) 632</td>
</tr>
<tr>
<td>Abstainers</td>
<td>(N=) 26 (4.1%)</td>
</tr>
<tr>
<td>Gender</td>
<td>Male 384 (60.8%), Female 220 (34.8%), Other 28 (4.4%)</td>
</tr>
<tr>
<td>Number of members in a group</td>
<td>Alone 23, &gt; 0.04%, Mean 3.6 people</td>
</tr>
<tr>
<td>Buying in rounds</td>
<td>(N=) 132 (20.9%)</td>
</tr>
</tbody>
</table>

5.5.1.1 Volume of alcohol consumption

In total 1471 beverages were observed across the main study. There were 266 patrons who consumed one beverage, 156 consumed two, 68 consumed three beverages, and 73 who consumed four beverages. There were 69 patrons who were consumed five or more beverages. There was no significant difference between males and females in mean quantity of beverages consumed, $t (602) = -1.19, p = .233$. The most preferred category of beverage overall was beer/cider, followed by spirits and wine respectively (Please see Table 12). Water was consumed infrequently: 0.04% of all beverages observed (53/1471) were water. The average amount of alcohol consumed was 2.3 serves, which indicates exceedance of Australian daily drinking guidelines (NHMRC, 2016).
Table 12: Frequency of observed drink categories over time by gender

<table>
<thead>
<tr>
<th>First beverage</th>
<th>Count (%)</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer and cider</td>
<td></td>
<td>214 (55.7%)</td>
<td>96 (43.6%)</td>
</tr>
<tr>
<td>Wine</td>
<td></td>
<td>65 (16.9%)</td>
<td>46 (20.9%)</td>
</tr>
<tr>
<td>Spirit or cocktail</td>
<td></td>
<td>78 (20.3%)</td>
<td>48 (21.8%)</td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td>7 (1.8%)</td>
<td>11 (5.0%)</td>
</tr>
<tr>
<td>Non-alcoholic</td>
<td></td>
<td>20 (5.2%)</td>
<td>19 (8.6%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second beverage</th>
<th>Count (%)</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer and cider</td>
<td></td>
<td>109 (48.2%)</td>
<td>53 (42.6%)</td>
</tr>
<tr>
<td>Wine</td>
<td></td>
<td>52 (23.0%)</td>
<td>26 (21.3%)</td>
</tr>
<tr>
<td>Spirit or cocktail</td>
<td></td>
<td>43 (19.0%)</td>
<td>30 (24.6%)</td>
</tr>
<tr>
<td>Water or</td>
<td></td>
<td>7 (3.1%)</td>
<td>5 (4.1%)</td>
</tr>
<tr>
<td>Non-alcoholic</td>
<td></td>
<td>15 (6.6%)</td>
<td>9 (7.4%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third beverage</th>
<th>Count (%)</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer and cider</td>
<td></td>
<td>62 (45.9%)</td>
<td>24 (35.8%)</td>
</tr>
<tr>
<td>Wine</td>
<td></td>
<td>31 (23.0%)</td>
<td>14 (20.9%)</td>
</tr>
<tr>
<td>Spirit or cocktail</td>
<td></td>
<td>23 (17.0%)</td>
<td>18 (26.9%)</td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td>6 (4.4%)</td>
<td>5 (7.5%)</td>
</tr>
<tr>
<td>Non-alcoholic</td>
<td></td>
<td>13 (9.6%)</td>
<td>6 (9.0%)</td>
</tr>
</tbody>
</table>

In terms of drinking duration, the total amount of time spent drinking ranged from 1 minute to 293 minutes with a median of 45 minutes. Not surprisingly, the distribution was significantly positively skewed (coefficient of skewness = 14.59, Kolmogorov-Smirnov test \( p < .001 \)). The total number of serving units consumed ranged from 1 to 8 with a median of 2 serving units, and the distribution was significantly positively skewed (coefficient of skewness = 12.9, Kolmogorov-Smirnov test \( p < .001 \)). Owing to the non-normality of these distributions, nonparametric inferential tests were used to analyse whether there were differences between genders in terms of total drink duration and total quantity of serving units consumed. Mann-Whitney U-tests indicated that there were no significant differences between genders according to total duration of drinking episode (\( Z = -0.726, p = .468 \)) and total number of serving units consumed (\( Z = -1.1, p = .288 \)).

Eighty seven (13.8%) observed patrons smoked and 86.2% did not. Independent samples t tests revealed the average total drinking duration for smokers (M = 85.42 min, SD = 57.66) was significantly longer than for non-smokers (M = 59.18 min, SD = 44.05 min), \( p < .001 \). Smokers consumed significantly more beverages on average (M = 3.03, SD = 1.78) than non-smokers (M = 2.12, SD = 1.52), \( p < .001 \).
5.5.1.2 Patterns

Across all observations, drinking duration for the first beverage was on average no longer for females (M = 33 minutes, SD = 52 minutes) compared to males (M = 26 minutes, SD = 14 minutes), \( t(238.13) = -1.75, p = .082 \). Drinking duration for the second beverage did not differ significantly between males (M = 27 minutes, SD = 15 minutes) and females (M = 30 minutes, SD = 17 minutes), \( t(345) = -1.74, p = .083 \). Taken together, results suggest drinking patterns were similar for males and females in this study. One hundred and thirty-five (21.4%) observed patrons used a straw at least once, and 16% of all beverages were consumed through a straw. The total number of beverages (49%) observed that were consumed through a straw numbered 238 out of a total of 485 beverages that could have been served with a straw. The mean total drinking time for drinks consumed through a straw was 20.46 minutes while mean total drinking time without a straw within the category of beverages which can be potentially consumed with a straw (i.e. spirits, cocktails, non-alcoholic drinks) was 24.18 minutes.

Twenty-three patrons (less than 0.04%) attended the venue alone. The number of members in a group ranged from 2 to 12 patrons. Slightly more than 20% of patrons observed on premise bought alcohol in rounds (132/632). The number of members of a group was significantly positively associated with behaviour of buying in rounds \( r = .135, p = .017 \). Independent sample t-tests showed that for people who bought drinks in rounds, the total duration of drinking episode and the total quantity of serving units were significantly higher than for people who did not buy in rounds (Please see Table 13).

Table 13: Mean (and standard deviation) total duration of drinking episode in minutes and serving units for patrons according to buying in rounds

<table>
<thead>
<tr>
<th></th>
<th>Not buying in</th>
<th>Buying in rounds</th>
<th>Mean difference</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total duration of drinking episode</td>
<td>57.5 (41.6)</td>
<td>79.8 (53.7)</td>
<td>-22.3 (5.3)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Total serving units</td>
<td>2.1 (1.6)</td>
<td>3.2 (1.7)</td>
<td>-1.0 (0.2)</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

A multiple regression model was computed to regress total duration of drinking episode (criterion) on the number of members in a group, behaviour of buying in rounds, smoking and the number of drinks consumed with a straw to examine the relationships between alcohol drinking duration and individual and social factors observed. There were no issues with multicollinearity, heteroscedasticity or linearity of residuals. The model accounted for a significant 17.4% of the variance in drinking duration (minutes), \( R^2 = .174 \) (\( R^2 \) adj. = .163), \( F(4, 299) = 15.80, p < .001 \). Gender was not a significant predictor
of duration of drinking episode. Group size, buying in rounds, and smoking behaviour were significantly related to total duration of drinking episode (Please see Table 14). The number of beverages consumed through a straw was not a statistically significant predictor. A one unit increase in group number was associated with a 7.0 minute increase in the total duration of drinking episode. Buying drinks in rounds was associated with a 14.4 minute increase in total duration of drinking episode, and smoking was associated with an 18.8 minute increase in total drinking episode duration. Group size had the strongest association with alcohol drinking duration, accounting for a unique 9% variability in total duration drinking episode (Please see Table 14).

Table 14: Summary of regression of total quantity of serving units and duration of drinking episode on observable drinking behaviours (N = 304)

<table>
<thead>
<tr>
<th>Source</th>
<th>B (SE)</th>
<th>β</th>
<th>sr²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criterion: quantity of serving units</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group size</td>
<td>0.19 (0.04)</td>
<td>0.224</td>
<td>0.011</td>
<td>&lt; .001***</td>
</tr>
<tr>
<td>Buying in rounds (1 = yes)</td>
<td>0.78 (0.18)</td>
<td>0.224</td>
<td>0.011</td>
<td>&lt; .001***</td>
</tr>
<tr>
<td>Smoking (1 = yes)</td>
<td>0.39 (0.24)</td>
<td>0.087</td>
<td>0.007</td>
<td>.102</td>
</tr>
<tr>
<td>No. drinks with a straw</td>
<td>0.36 (0.09)</td>
<td>0.212</td>
<td>0.044</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>Criterion: total duration of drinking episode (minutes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group size</td>
<td>6.99 (1.25)</td>
<td>0.298</td>
<td>0.087</td>
<td>&lt; .001***</td>
</tr>
<tr>
<td>Buying in rounds (1 = yes)</td>
<td>14.37 (5.24)</td>
<td>0.146</td>
<td>0.021</td>
<td>.006**</td>
</tr>
<tr>
<td>Smoking (1 = yes)</td>
<td>18.85 (6.80)</td>
<td>0.147</td>
<td>0.021</td>
<td>.006**</td>
</tr>
<tr>
<td>No. drinks with a straw</td>
<td>4.65 (2.54)</td>
<td>0.097</td>
<td>&lt; .001</td>
<td>.068</td>
</tr>
</tbody>
</table>

Note: sr = semi-partial correlation; *p < .05; **p < .01; ***p < .001.

A second multiple regression analysis was undertaken to examine the extent to which total quantity of serving units consumed across the observed episode (criterion) was explained by the number of members in a group, behaviour of buying in rounds, smoking behaviour and the number of drinks consumed with a straw. Variables were entered simultaneously. Assumptions of multicollinearity, heteroscedasticity and linearity of residuals were met. Overall the model accounted for just under 20% of the variance in total quantity of serving units consumed, \( R^2 = .191 \) (\( R^2 \) adj. = .180), \( F(4, 299) = 17.6, p < .001 \). The regression analysis is summarized in Table 14. Gender was not a significant predictor. Group size, buying in rounds and the number of drinks consumed through a straw were significant predictors of the total quantity of serving units consumed. Smoking was not a significant predictor. For every additional 1 person in a group 0.19 more serving units were consumed. The behaviour of buying drinks in rounds increased the quantity of serving units consumed by 0.78 units. The number of drinks consumed
through a straw accounted for 4% of unique variability in total quantity consumed (Please see Table 14).

5.6 Discussion

This study sought to extend consideration beyond the individual targeted (micro level) to understand important others and the environment surrounding the individual (meso and macro levels), and employed an innovative research methodology to extend understanding of alcohol beyond quantities consumed, the objectives of the current study were twofold. First, the influential role of social factors (group size) and individual demographic factors (gender and smoking status) were considered. Second, a context-specific covert observational method to observe drinking behaviour was developed. The main findings indicate that individual and social factors impact alcohol drinking patterns, as do serving practices.

Covert observations permit actual behaviour to be observed providing an opportunity to explore drinking patterns without self-report bias (Rundle-Thiele, 2009). In the past males were shown to drink more than females (Holmila and Raitasalo, 2005; Roche and Deehan, 2002) and more recently evidence has emerged suggested alcohol drinking is converging (Kuntsche et al., 2011; White et al., 2015; Wilsnack and Wilsnack, 2013). Similarly, prior research suggests that smokers drink more alcohol than non-smokers (Barmpagianni et al., 2014; Marsh et al., 2016). The current results suggest that smoking is associated with heavier drinking confirming earlier findings (Barmpagianni et al., 2014), and provide further evidence indicating a convergence between genders in terms of mean quantity of drinks consumed and drinking duration. Given that females process alcohol more slowly when compared to males (Roche and Deehan, 2002) the absence of statistically significant differences between genders is particularly concerning, and suggests that females may be reaching higher intoxication levels, placing them at higher risk of alcohol related harm.

Venue serving practices are known to impact drinking behaviour of licensed premise customers (Stockwell and Crosbie, 2001). These include serving drinks with a straw as the current study’s findings indicate that quantity of serving units consumed were impacted by consuming alcohol with straws. Several reasons can be speculated why drinks are served with straws such as to enhance the customers’ service experience, due to demand, or as a decorative element in cocktails. Straws might be preferred by customers for medical or personal reasons (such as protecting make up), or to enhance drinking experience such as avoiding garnish in cocktails. Future research could focus on
exploring reasons behind drinking an alcoholic drink with a straw or the intention behind serving drinks with straw. In summary, the current study quantifies impacts of using straws on drinking behaviour, which establishes another factor related to drinking behaviour. This finding suggests that the impact of straws should be further considered while serving alcohol and interventions are recommended to test the impact of removing straws from alcohol serving.

The results indicate that micro (smoking) and meso (buying in rounds and group size) level factors increased total duration of the drinking episode. Group size, buying in rounds and the number of drinks consumed through a straw were significant predictors of the total quantity of serving units consumed. These findings are consistent with an interpretation that social elements of drinking environments might facilitate peer pressure to consume and spend more time in a venue (Knibbe et al., 1993; Room, 2013). Drinking quantity had been the focus of previous literature (Connor et al., 2011; Cooke et al., 2014) without considering direct influencers of drinking duration per unit and per session. For example, social factors known to impact drinking behaviour include group size (Oostveen et al., 1996), buying in rounds (Knibbe et al., 1993), and atmosphere of the premise (Homel et al., 2004). In this study, quantifying social factors that impact duration for each serve extends our understanding on the underlying factors of micro, meso and macro levels impacting drinking behaviour.

The current study contributes to the literature in four ways. First, this study contributes to social marketing literature by documenting the use of a structured, context-specific covert observation protocol to understand i) the extent of and ii) the social factors which impact alcohol drinking behaviour at a licensed premise. New variables were used in the structured observation protocol such as straws and drinking duration for each serving unit, thus extending our understanding of on-premise alcohol consumption.

Second, the focus in previous research has been drinking quantity (Callinan et al., 2016). Investigations of drinking duration are less evident (Bot et al., 2007; Lin et al., 2013). The current study extends our understanding of alcohol drinking beyond quantity by incorporating observation of duration of consumption for each serve. This enabled more detailed analysis of individual drinking patterns within an alcohol drinking session to be gained.

Third, the current study incorporates social factors (group size and buying in rounds). Consideration of the broader social environment in public drinking behaviour extends
current understanding. Our findings indicate that social factors are more influential on the quantity and pattern of alcohol consumption than individual factors. Taken together, the results of this study suggest that use of observations which permit individual, social and in time environmental factors to be observed simultaneously should be adopted more widely in alcohol research to extend our knowledge of the true drivers of alcohol drinking.

Finally, a unique contribution of the current study is that venue serving practices involving serving drinks with straws impact drinking duration and quantity of drinks consumed. Drinking behaviour has been well researched (Dumbili, 2016; Foster and Ferguson, 2014) with the majority of studies using self-report data (Breen et al., 2014; Carlin, 2016; Marsh et al., 2016). In contrast, collecting observational data about alcohol drinking behaviour allowed us to quantify drinking patterns which gave deeper understanding of drinking behaviour, and uncovered novel factors for future consideration.

5.7 Implications

The current study provides evidence that drinking patterns of both genders are similar. Therefore, intervention efforts targeting individuals might not need to be gender specific. The volume of alcohol consumption was influenced by group size, buying in rounds and the number of drinks consumed through a straw. To minimize group influences in drinking, serving practices, specifically the supply of straws, could be discouraged through responsible alcohol serving policies. A key issue requiring additional attention concerns the viability and voluntary or mandated nature of changes to serving practices. Further research is recommended to understand how sustainable changes can be delivered.

Smoking was associated with higher levels of alcohol consumption, which suggests that to reduce drinking, licensed premises should be smoke free zones. By implementing serving practice changes via legislation (e.g. banning straws and implementation of smoke free zones) we would expect to see associated changes to the impact of alcohol in the wider community.

5.8 Limitations and future research directions

The study was conducted in one Queensland venue, therefore, the results cannot be generalised to districts with different licensing laws or local policies. Recall that in this study alcohol intake for many observed patrons met or exceeded daily drinking
recommendations (NHMRC, 2016). Preloading (drinking in domestic settings before going out to licensed premises) is well-known (Foster and Ferguson, 2014) and this was not documented in the current study. Actual drinking rates may be even higher than those reported here. Moreover, some participants may have continued to drink after leaving the venue that we observed. Despite the limitation of potentially underestimating actual consumption, a deeper understanding of factors contributing to alcohol drinking on premise was obtained by the use of structured observations. It is interesting to note that many patrons observed consumed 2 drinks – which is close to responsible drinking and driving recommendations. An avenue that can be explored in future research is whether drinking campaigns are having an impact on-premise drinking rates. A time series study would be required with observations in venues pre, during and post drink driving campaign.

To extend our understanding of societal factors that impact alcohol consumption and to build an understanding of the role that policy plays, observations across a broad array of settings is recommended. Replication of the method outlined in the current study across different venues, states and countries would permit the role of policy, drinking environments, and drinking cultures to be better understood. For example, multi-level modelling could be applied permitting the role of both environmental (policy) and social factors to be examined simultaneously, thus extending understanding beyond the meso level as presented in the current study.

Within the context observed, further refinements to the current measure are possible and this represents an opportunity for future research. Specifically, in the current study measurement units were considered as the serving unit, and therefore data is not presented in terms of standard drinks or alcohol units of measurement. Further, not all people observed were captured for the full length of time they spent on premise (i.e., partial episodes). Areas for improvement in future observation studies would be to sample from all trading hours, and quantify standard units of measurement.

Other possible impacts on drinking behaviour in licensed premises such as physical environment of the premise, management practices, responsible serving policies and commercial product promotions can be captured with a large-scale study that applies a randomised stratified sampling approach to capture different license types proportionally within each policy jurisdiction. Research is recommended across policy jurisdictions to ensure the role of policy on alcohol drinking can also be considered.
The link between buying in rounds and alcohol consumption was established in the current study illustrating how social factors can be observed and counted. Additional underlying social factors may be driving alcohol drinking and these warrant investigation. Examples include gender group composition (Knibbe et al., 1993), music (Gueguen et al., 2008), promotions (Stockwell et al., 1993), servers’ attitude (McFadden et al., 2015), purpose of drinking such as birthday or formal gathering (Piontek et al., 2013), glass shapes (Troy et al., 2015), straw size (Lin et al., 2013), sexual activity (Graham et al., 2006), patron to staff ratio (Homel and Clark, 1994), and activities (e.g live music, board games) (Green and Plant, 2007). The inclusion of a broader set of social and environmental factors will ensure that the effects of the variables captured in the current study on alcohol drinking are not inflated. The current study does not provide any insight into how and why the buying in rounds practice is performed which requires further research focus to extend understanding of the phenomena.

5.9 Conclusions

Calls to move social marketing beyond the individual to influence the social and environmental structures surrounding the individual have been made (Hoek and Jones, 2011; Wymer, 2011). This covert observation case study, which was conducted in a natural setting, provides empirical evidence documenting the influential factors on alcohol drinking in one licensed premise. Importantly, social factors and serving practices (serving drinking through straws) were more influential on the alcohol quantity consumed than individual factors. Prior research has been individual focused seeking to explain alcohol drinking using demographic (Bond et al., 2010; Fitzgerald et al., 2016; Wilsnack and Wilsnack, 2013), psychographic (Carlin, 2016; Iwamoto and Smiler, 2013) and other factors such as smoking status (McKee et al., 2010) and drinking contexts (Callinan et al., 2016). By undertaking covert observations in a natural setting, researchers can simultaneously capture individual, social and environmental factors permitting a more holistic systems view to be measured compared to self-reported studies.
5.8 References


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Chapter 6 – (Study 2) A systematic review of stakeholder involvement in social marketing interventions

**STATEMENT OF CONTRIBUTION TO CO-AUTHORED PUBLISHED PAPER**

This chapter includes a co-authored paper. The accepted co-authored paper, including all authors, are: Nuray Buyucek, Associate Prof. Krzysztof Kubacki, Prof. Sharyn Rundle-Thiele and Bo Pang.

The study was designed by Krzysztof Kubacki and Sharyn Rundle-Thiele. The provision of data, the preliminary analysis was undertaken by Nuray Buyucek and Bo Pang. Categorisation of the data into a usable format, structure of the analysis, providing direction on the scope, analysis of results was a collaborative effort executed by Nuray Buyucek, under the mentorship of Krzysztof Kubacki and Sharyn-Rundle-Thiele. Literature review and reporting, drafting, submission, and revision of the manuscript was led by Nuray Buyucek under the mentorship and guidance of Krzysztof Kubacki and Sharyn-Rundle-Thiele. The final version of the manuscript was approved by the all authors listed. This manuscript was accepted for publication on 6 November 2015.

22 February 2017

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Overview
The purpose of the following study is to determine the extent to which different stakeholders are involved in social marketing interventions. Since alcohol drinking behaviour is impacted by a number of factors, understanding and changing those factors is possible only if those parties who shape the behavioural context are involved in interventions. However, the involvement of different stakeholders in intervention planning, implementation, and evaluation has not previously been systematically explored in the social marketing literature. To obtain a more comprehensive picture of stakeholder engagement in social marketing interventions, the following study was designed to answer Research question 3; “Which stakeholders were involved in social marketing interventions targeting problem alcohol drinking?”
6.1 Abstract

Stakeholder theory implies that involvement of stakeholders in intervention planning, implementation, and evaluation stages may enhance marketing outcomes. A systematic literature review was conducted to identify social marketing interventions published in peer-reviewed journals whose reported aim was to reduce harm caused by alcohol from 2000 to May 2015. This paper considers the extent of stakeholder involvement in key stages of social marketing interventions, namely the formative research, implementation, and evaluation stages. The number of stakeholders was greatest in more complex community settings when compared to more narrow settings such as universities and schools. A restricted stakeholder focus was observed for evaluation. Stakeholder theory, a widely used management theory, can guide downstream social marketing intervention planning and design, implementation, and evaluation to deliver sustainable programs. Limited stakeholder involvement in social marketing interventions limits their potential. Given limited stakeholder involvement was identified in the current review use of a broader array of stakeholders in formative research and evaluation is recommended to optimise behavioural outcomes.

**Keywords:** Social marketing, alcohol, stakeholder theory, systematic literature review, intervention
6.2 Introduction

Alcohol consumption can be harmful to the individuals consuming alcohol, their friends, families and society at large. According to the World Health Organisation, 2.5 million deaths are attributed to alcohol related consequences (WHO, 2011a), which represents 4% of all preventable deaths worldwide (WHO, 2011b). Sixty major types of diseases and injuries are caused by alcohol, and the most common ones include a broad range of cancers, cardiovascular diseases, foetal alcohol syndrome and gastrointestinal diseases (WHO, 2011b). Considerable evidence indicates that individuals misusing alcohol are two to four times more likely than the general population to die prematurely (Room et al., 2005). Of further concern, the impact of alcohol consumption extends beyond the individuals who drink alcohol, with both short- and long-term consequences of high-risk drinking reported. For example, the actions of intoxicated persons can lead to alcohol-related negative consequences, such as traffic accidents and hospitalisations (Laslett et al., 2010). Some estimates indicate that nearly half of the Australian population (10.5 million people) report being negatively impacted by the drinking of a stranger (Laslett et al., 2010).

A considerable body of research has been undertaken to understand how the harm from alcohol consumption can be minimised. Different approaches to minimise harm caused by alcohol include educational interventions (Bingham et al., 2010; Schwinn and Schinke, 2010), law enforcement (Dula et al., 2007; Wechsler et al., 2003), and social marketing (Rothschild, 1999; Rundle-Thiele et al., 2013). While considerable gains have been made to combat harmful alcohol drinking, ongoing risky drinking suggests that additional research attention is warranted. Management theories such as the systems theory (Rowland et al., 2013), chaos theory (Levy, 1994), contingency theory (Hofer, 1975), strategic management theory (Hitt, 2011), and stakeholder theory (Freeman, 1984) have long been used in commercial settings; however, the use of management theories in social marketing settings remains limited (for review of theories and models used in social marketing, see for example Luca and Suggs, 2013, and Truong, 2014). Given that calls have been made (see Rundle-Thiele, 2013) to extend theory use beyond dominant psychological and sociological theories, research investigating the extent that consideration of stakeholders has occurred in downstream social marketing interventions is warranted. The aims of the current study are twofold. First, this paper seeks to establish the extent different groups of stakeholders are used in social marketing interventions aiming to minimise harm from alcohol consumption. Second, this paper distinguishes
stakeholder theory from important social marketing approaches, such as systems thinking and co-creation. This paper contributes to the literature by illustrating the importance of adding a stakeholder perspective in addition to value creation and where relevant systems thinking within the design, planning, implementation, and evaluation stages of downstream social marketing interventions permitting sustainable interventions to be delivered by social marketers.

6.3 Social marketing perspective

Social marketing, since it was first defined by Kotler and Zaltman (1971) has been used to change a broad range of behaviours, including (but not limited to) obesity (Francis and Taylor, 2009), drink and drug driving (Clapp et al., 2005; Dula et al., 2007), smoking (Egger et al., 1983; Lefebvre and Flora, 1988), and alcohol consumption (LaBrie et al., 2007; Lederman and Stewart, 2005). Drawing on its parent discipline of commercial marketing, which largely drew on economics and psychology, social marketing has evolved over the last forty years into a discipline in its own right (Rundle-Thiele, 2013). There is a considerable body of evidence suggesting that social marketing can be implemented to change behaviour (Carins and Rundle-Thiele, 2014; Kubacki et al., 2015). According to one of the leading social marketing scholars, Alan Andreasen (2002), social marketing interventions at the downstream level aiming to change behaviour should be competitively minded, audience centred, employ a full marketing mix to extend beyond mere messaging and take competition into account to offer a compelling exchange for the target audience. Carins and Rundle-Thiele (2014) recently demonstrated in their systematic review of social marketing interventions targeting healthy eating that when social marketing is applied using more of the Andreasen’s (2002) criteria, social marketers are more likely to achieve desired behaviour change.

Our understanding of social marketing employed in this study stems from a recent consensus definition of social marketing endorsed in October 2013 by the International Social Marketing Association (ISMA), European Social Marketing Association (ESMA) and the Australian Association of Social Marketing (AASM et al.), which states that:

“Social Marketing seeks to develop and integrate marketing concepts with other approaches to influence behaviours that benefit individuals and communities for the greater social good. Social Marketing practice is guided
by ethical principles. It seeks to integrate research, best practice, theory, and partnership insight, to inform the delivery of competition sensitive and segmented social change programmes that are effective, efficient, equitable and sustainable” (AASM, ISMA, & ESMA, 2013; emphasis added).

A key point to note is the acknowledgement in the recent consensus definition of social marketing that social marketing seeks to establish effective partnerships and integrate marketing concepts with other approaches, which may include management theories. However, social marketing as a discipline has been criticised for scant usage of theories (Luca and Suggs, 2013; Rundle-Thiele, 2013), despite assertions that theory use can improve social marketing effectiveness (Lombardo and Leger, 2007). To date, the theories that have been used in social marketing remain limited to consumer behaviour, sociological, and behavioural theories (Luca and Suggs, 2013; Truong, 2014). The study by Luca and Suggs (2013) highlighted limited application of theory in intervention designs with only 6 out of 17 studies reporting theory use. A review of the literature indicates that commonly used theories in social marketing include the theory of planned behaviour (Stead et al., 2005), the health belief model (Julinawati et al., 2013), and the stages of change transtheoretical model (Gallivan et al., 2007). These models provide a dominant focus on the individual. Given calls to move social marketing upstream (Hoek and Jones, 2011), and the need to take a macro level view, theories that stretch beyond one stakeholder group are needed (Gordon and Gurrieri, 2014). Taken together, there is evidence indicating a limited repertoire of theories being used in social marketing, which may provide too much emphasis on the targeted individuals in intervention design, planning, implementation, and evaluation. The continued dominant use of theories such as the theory of planned behaviour is surprising given that studies show that intentions do not always lead to behaviour change (Holdershaw et al., 2011), which according to Andreasen (2002) is the focus and ultimate goal of social marketing interventions. Additional theoretical perspectives are warranted to extend understanding of how behavioural change can be better achieved by social marketers. As stated in Walsh et al. (1993), application of theory assists to develop understanding in social marketing and provides an important framework to teach the next generation of social marketers (Rundle-Thiele, 2013).

Social marketers need to consider alternative theoretical perspectives to extend our understanding of how social marketing may be better applied to enhance outcomes and
deliver sustainable interventions (Gordon et al., 2010; Spotswood et al., 2012). Scarcity of time, financial and natural resources has been detailed broadly in the management literature (Appelgren and Klohn, 1999; Engwall and Jerbrant, 2003), and management thinking is grounded on managing those limited resources in the most effective manner to achieve organisational goals. Stakeholder theory, a widely used management theory, is proposed as an additional approach to guide the management of social marketing programmes ensuring that stakeholders are considered in intervention design, planning, implementation, and evaluation. A stakeholder perspective implies applying a managerial and stakeholder-oriented perspective in social marketing planning, programme design, delivery, and evaluation.

6.4 Stakeholder theory

Thirty years ago R. E. Freeman (1984) proposed a strategic concept to describe a firm and its networks, stating that “[a]ny group or individual who can affect or is affected by the achievement of a corporation’s purpose” (p. iv) is a stakeholder. Formulation of stakeholder theory was the result of work aiming to improve the survival probabilities of corporate companies in a competitive market economy through understanding the “needs and concerns” of stakeholder groups and to gain the support of those groups with the ultimate aim of sustaining and improving performance.

Successful companies have a tendency to consider stakeholder groups in decision making (Bryson, 2004). In fact, Donaldson and Preston (1995) suggested there might be a positive correlation between a company’s success and the number of stakeholders that are taken into account during planning and decision making processes. Moreover, interconnectedness that is caused by globalisation has increased the importance of considering stakeholders as there are many parties who affect and are affected by a firms’ survival, and unattended concerns of stakeholders may lead to poor performance and even failure (Bryson, 2004). Lafreniere et al. (2013) explored the discrepancy between the perceptions of stakeholders and managers of the organisations and concluded that understanding stakeholders’ perspectives would help to create tailored solutions for different stakeholder groups and would ensure that managers have a stakeholder’s perspective. While companies are dealing with multiple stakeholders, managing those relationships requires time and financial resources. Due to time and financial constraints, those stakeholder relationships have to be managed in the most effective manner in terms of time, effort, and resource allocation. The most important stakeholders need to be prioritised according to the degree of importance for the firm’s survival. Therefore,
limited resources can be allocated according to the degree of importance. There are six primary stakeholder groups according to Hult et al. (2011), namely customers, employees, suppliers, shareholders, policy makers, and community. Secondary stakeholders, such as competition and media, may also affect the firm’s success but remain less vital to a firm’s day to day survival (Clarkson, 1995).

6.5 Social marketing and the use of stakeholder theory

Stakeholder theory has been widely used in value maximisation (Jensen, 2010), feminist ethics (Burton and Dunn, 2009), organisational ethics (Phillips, 2003), and strategic management (Freeman et al., 2010). Currently, there is also a discussion in the social marketing literature focusing on the importance of relational marketing and the necessity to consider stakeholders (Margues and Domegan, 2011; Rundle-Thiele, 2013), as well as reports of stakeholders’ involvement in decision-making (Domegan et al., 2013). For example, Beierle (2002) reported that the quality of decisions was improved in environmental decision-making when a stakeholder process was used, and concluded that there is a positive correlation between the intensity of stakeholders’ processes and high-quality decisions. Furthermore, Gregson et al. (2001) stated that “the number, type, and strength of partnerships involved in the social marketing of nutrition education efforts can be important indicators of change.”

In the alcohol consumption area, Leverton and Evans (2008) called for much broader use of all stakeholders involved in the field to address the problem of binge drinking and emphasised the importance of whole-of-society efforts to engage with complex social issues. Leverton and Evans’s (2008) approach resembles systems level social marketing, which aims to achieve synergy through synchronisation across different social marketing and other behaviour change interventions and coordinating multiple stakeholders from micro, meso, and macro levels to change behaviour and increase effectiveness of social marketing interventions (French and Gordon, 2015). The focus of systems level social marketing extends beyond a downstream social marketing focus and includes the management of conditions created by political, economic, social, technological, and cultural systems and the interactions between these systems (Domegan et al., 2013; Hastings and Domegan, 2014; Kennedy and Parsons, 2012). Further, systems level thinking implies a government focus, typically involving policy to enact change.

A stakeholder approach differs from systems level thinking. Specifically, a stakeholder approach guides social marketers from the programme design stage through
implementation and finally evaluation assisting them to prioritise relationships, integrate key stakeholders’ opinions and preferences into interventions. Social marketing interventions are then designed to change behaviour at an individual level by offering competitively minded alternatives that are desired by the target audience and supported by stakeholder groups involved. Concepts such as value creation and co-creation (Domegan et al., 2013; Lefebvre, 2012) refer to working with the target audience to create offerings at the design and planning stage. Stakeholder theory extends on co-creation and value creation reminding social marketing practitioners and researchers of the important actors in the system who are also affected and may serve as a barrier to designed offerings if they are not involved from the outset of the design and planning process. Stakeholder theory provides a framework to assist social marketers to manage those relationships effectively.

Social marketing deals with complex social problems, and consequently social marketing interventions may involve a wide range of different stakeholders varying between government organisations, local communities, churches, and interest groups across different collaborations, such as alliances and support service organisations. In practice, social marketers face many of the constraints identified in the management literature, such as limited time, financial, and natural resources (Neumayer, 2000), restricting their ability to implement whole-of-society efforts. As every social marketing intervention has a different context, resources, target groups, and aims, there is a need to consider and limit the involvement of different stakeholders depending on their availability, reach, and convenience (Hoek and Jones, 2011).

Social marketing interventions always involve interactions with multiple stakeholders, and working with different stakeholders in social marketing interventions has been acknowledged as beneficial (Thomas, 2008), as the inclusion of different stakeholders may result in improved commitment to behaviour change (Domegan et al., 2013). Those interactions can be managed in an explicit way, for example through multisector approaches (Lefebvre, 2009), or in an implicit way through the use of theories and techniques that require the involvement of other stakeholders. The involvement of stakeholders in social marketing interventions has been described using concepts such as initiatives (Hastings et al., 2002), agencies (Andreasen, 2006), alliances (Temple et al., 2008), coalitions (Singer and Kayson, 2004), partners (French and Gordon, 2015; Thomas, 2008), and last but not least, stakeholders (Domegan et al., 2013; Lefebvre, 2012; McHugh and Domegan, 2013). The diversity of names and stakeholder engagement
forms provides further support to the argument that in social marketing stakeholders need to be systematically identified and managed throughout the intervention design, planning, implementation, and evaluation process.

Regardless of the term used to describe stakeholder involvement in social marketing interventions, social marketing literature currently provides several examples of different implicit approaches to coordinating the involvement of stakeholders in interventions. Lefebvre (2012) and Domegan et al. (2013) advocate the involvement of target group in the intervention process to facilitate co-creation of value, for example through action research used to inform and co-design interventions with stakeholders. A similar approach to stakeholder management is community mobilisation used for active engagement and value creation with community members (Kelly et al., 2003) during intervention design, planning, and implementation. However, Hastings (2003) points out the challenge of identifying “which stakeholders to prioritize and how to handle them” (p. 11), and highlights the fact that behaviour change does not occur overnight, thus requires long-term planning, and none of the aforementioned approaches sufficiently consider the identification and management of complex relationships between multiple stakeholders involved in the delivery of social marketing interventions.

Considering that behaviours are influenced by a wide range of environmental factors that might be shaped by different stakeholders, there is a need for efficient coordination to achieve synergy between different stakeholders. Yet the involvement of stakeholders in social marketing interventions poses its own challenges. For instance, identification of stakeholders might be time-consuming (Thomas, 2008), and stakeholders may have different/hidden agendas (Andreasen, 2006; Domegan et al., 2013; Lefebvre, 2006; Zainuddin et al., 2011), motivations (Thomas, 2008), and priorities (Lefebvre, 2006), even conflicting interests (Hoek and Jones, 2011). Furthermore, with the involvement of multiple stakeholders, there is also a danger of loss of ownership (Thomas, 2008) or control (Domegan et al., 2013; Lefebvre, 2006), and discrepancy between expectations between the intervention planners and the partnering bodies (Bryant et al., 2000; Lefebvre, 2006). Given that social marketers are under significant pressure of limited time and financial resources available for interventions (Singer and Kayson, 2004), careful stakeholder management approaches are needed.

Understanding which stakeholders need to be involved and at what stage of the social marketing process (e.g. formative research, implementation, and evaluation) may yield insights into why some interventions change behaviour (and why others do not).
Formative research, implementation, and evaluation stages are employed as the frame for the current study as they have been identified by leading social marketing scholars as key stages in the social marketing process (Lefebvre and Flora, 1988; Walsh et al., 1993). Establishing which stakeholders have been involved at each social marketing stage represents an important first step towards understanding stakeholder involvement in social marketing.

Furthermore, consideration of social marketing as a continuum implies three different streams and a need for a stakeholder approach to deliver an integrated approach that simultaneously considers the individual and other stakeholders affected by the intervention. Interventions should be delivered across a continuum that embraces a holistic approach of down-, mid- and upstreams to sustain behaviour change. Therefore, a holistic approach that guides, informs, and promotes all streams’ involvement using a stakeholder management perspective in social marketing interventions may lead to better outcomes. Specifically, Lefebvre and Flora’s (1988) and Walsh et al.’s (1993) social marketing frameworks recommend that social marketers seek to understand stakeholders, and then identify communication and behavioural objectives and barriers and to develop strategies that can be measured to determine the extent that behavioural objectives are met. Theories proposed to manage relationships that emerge in social marketing studies include relationship marketing (Hastings and Saren, 2003; Margues and Domegan, 2011), community-based social marketing (McKenzie-Mohr and Smith, 1999), and social cognitive theory (Maibach and Cotton, 1995). Those theories, however, were used to analyse relationship paradigms in social marketing interventions while limited attention was given to managing those relationships. Stakeholder theory, though, can provide an additional lens to manage those relationships to facilitate the most effective outcomes and to advocate sustainable behaviour change.

6.6 Method

Recent studies indicate that reviewing past studies, with particular focus on journal articles, allows researchers to establish the current state of knowledge within a discipline and to identify any potential theoretical gaps and avenues for future research (Truong, 2014). The search strategy adopted for this study was guided by the Carins and Rundle-Thiele (2014) systematic literature review on healthy eating. A systematic search of literature was undertaken to identify self-identified social marketing interventions
published in academic peer reviewed journals targeting alcohol harm reduction. Following Lefebvre and Flora (1988), Stead et al. (2007), and more recently Carins and Rundle-Thiele (2014), all behaviour change social marketing programmes were classified as interventions.

Seven databases were searched, namely EBSCO, Emerald, Ovid (All databases), ProQuest Central, Sciedirect, Taylor & Francis and Web of Science, using the following keywords: Alcohol* or drink* AND intervention* or Randomi#ed Controlled Trial or evaluation or trial or campaign* or program* or intervention or interventions AND “social marketing” terms. The time frame chosen for the present study was January 2000 to May 2015 as guided by Carins and Rundle-Thiele (2014) study. Social marketing is a fast-developing area (Truong, 2014), and therefore date restriction was added to ensure that the review captures its most recent developments. Following the search, 432 articles were retrieved from 7 databases (Please see Table 1). Records gathered from databases may vary due to different specialisations of different databases and their relation to the search terms. For instance; ProQuest includes 20 different databases. EndNote software was used to store the 432 records originally retrieved from the databases and to remove 217 identified duplicates. Following the removal of duplicates, 215 unique articles remained. Then, conference papers, newspaper articles and articles published before 2000 were removed, reducing the number of unique articles to 208. At the next stage, abstracts and titles of those articles were reviewed and unqualified (e.g. published before 2000, not in English and not peer-reviewed journal articles) and unrelated articles were excluded, which reduced the number to 155 relevant articles. Articles related to alcoholism, with no social marketing claims (e.g. clinical trials), not in English, reviews and conceptual papers, social media-related, social norms marketing interventions, and studies that report only formative research were excluded. Following the application of the exclusion criteria, 21 unique articles were qualified for the inclusion in the next stage – backwards and forwards search. The purpose of each social marketing intervention included in this review was to reduce harm caused by alcohol.
Table 15: Databases searched

<table>
<thead>
<tr>
<th>Database</th>
<th>Number of articles retrieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBSCO All Databases</td>
<td>62</td>
</tr>
<tr>
<td>Emerald</td>
<td>0</td>
</tr>
<tr>
<td>Ovid (All Databases)</td>
<td>114</td>
</tr>
<tr>
<td>ProQuest All Databases</td>
<td>77</td>
</tr>
<tr>
<td>ScienceDirect</td>
<td>0</td>
</tr>
<tr>
<td>Taylor &amp; Francis</td>
<td>0</td>
</tr>
<tr>
<td>Web of Science</td>
<td>179</td>
</tr>
<tr>
<td>TOTAL</td>
<td>432</td>
</tr>
</tbody>
</table>

Backwards and forwards search was conducted using Google Scholar and “Publish or Perish” software to gather more information about interventions by searching relevant articles to the interventions. The reference lists of all 21 articles were also examined to identify other publications relevant to the interventions and any new interventions relevant to this systematic literature review. Five more studies were identified, and in total 54 articles were sighted reporting 23 studies. The review process is summarised in Figure 4.
**Figure 4: Systematic literature review process**

- Records retrieved from databases: $N=432$
  - Remove duplicates: $N=217$
  - Removal of unqualified records:
    - Earlier than 2000 ($N=3$)
    - Not Journal Articles ($N=4$)
    - Not English ($N=2$)
  - Application of the exclusion criteria:
    - Policy related ($N=11$)
    - No social marketing claims ($N=86$)
    - Review/conceptual paper ($N=34$)
    - Formative research ($N=56$)
  - Backward/forward search: $N=33$
  - Remaining records: $N=208$
    - Qualified records: $N=21$
      - Final records: $N=54$ articles/23 interventions
6.7 Results and discussion

As each social marketing intervention is unique, their context affects their design as well as the number of stakeholders involved in formative research, implementation and evaluation. Twenty-three social marketing interventions in this study were grouped into one of the four main categories: university campus interventions (10), community interventions (7), school-based interventions (3), and interventions in medical centres (3).

6.7.1 Campus interventions

Table 16 outlines the stakeholders involved in each stage of the 10 social marketing interventions conducted at university campuses. Stakeholder involvement is presented across three key stages in the social marketing process, namely formative research, implementation and evaluation. For all of the interventions students were the main target group.

All but two interventions (Brown, 2004; Clapp et al., 2005) reported conducting formative research with students, the main stakeholder group, and the most commonly used research methods included focus groups, interviews and surveys. Only one intervention, Thompson et al. (2013), reported the involvement of two different stakeholder groups in the formative research, namely students and university administrators. In-depth interviews with university administrators and focus groups with students were conducted to understand alcohol-related attitudes. A similar pattern emerged for the analysis of the evaluation stage, which was focused in all but three studies on the main target group: students. In the intervention reported in Glider et al. (2001), other stakeholders, including the university and media, were reported. In the overwhelming majority of interventions, formative research and evaluation included only the main target group.
Table 16: Campus interventions

<table>
<thead>
<tr>
<th>AUTHOR*</th>
<th>TARGET GROUP</th>
<th>FORMATIVE RESEARCH</th>
<th>IMPLEMENTATION</th>
<th>EVALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown, 2004</td>
<td>Students</td>
<td>Not reported</td>
<td>Students, university</td>
<td>Students</td>
</tr>
<tr>
<td>Clapp, 2005</td>
<td>Students</td>
<td>Not reported</td>
<td>Students, university, local police</td>
<td>Students</td>
</tr>
<tr>
<td>Eckert, 2010</td>
<td>Students</td>
<td>Students</td>
<td>Students, university, community</td>
<td>Students</td>
</tr>
<tr>
<td>Glassman, 2010</td>
<td>Students</td>
<td>Students</td>
<td>Students, university, media</td>
<td>Students</td>
</tr>
<tr>
<td>Glider, 2001</td>
<td>Students</td>
<td>Students</td>
<td>Students, university, community, media, policy</td>
<td>Students, university, media, key</td>
</tr>
<tr>
<td>Gomberg, 2001</td>
<td>Students</td>
<td>Students</td>
<td>Students, university, media, NGOs, policy makers, suppliers</td>
<td>Students</td>
</tr>
<tr>
<td>Mattern, 2004</td>
<td>Students</td>
<td>Students</td>
<td>Students, university</td>
<td>Students</td>
</tr>
<tr>
<td>Murphy, 2012</td>
<td>Students</td>
<td>Students</td>
<td>Students, university</td>
<td>Students</td>
</tr>
<tr>
<td>Thompson, 2013</td>
<td>Students</td>
<td>Students, university</td>
<td>Students, university</td>
<td>Students</td>
</tr>
<tr>
<td>Vinci, 2010</td>
<td>Students</td>
<td>Students</td>
<td>Students, university, community, policy makers</td>
<td>Students</td>
</tr>
</tbody>
</table>

* Interventions cited in tables using the first author’s name and publication year

The implementation stage included the highest number of stakeholders across all interventions conducted on university campuses. The number of stakeholders ranged from two to six (Glider et al., 2001; Gomberg et al., 2001). Both students and universities were involved in all. One might expect the involvement of university administration when an intervention is carried out on the university campus. For example, data collection and ethical clearance process require university administration’s approval and support. Other stakeholder groups involved in the implementation stage included wider community (Eckert et al., 2010; Glider et al., 2001), media (Glassman et al., 2010; Glider et al., 2001; Gomberg et al., 2001), policy makers (Glider et al., 2001; Gomberg et al., 2001), alcohol suppliers (Glider et al., 2001; Gomberg et al., 2001), and local police (Clapp et al., 2005).

6.7.2 Community interventions

Table 17 outlines the stakeholders involved in each stage of the seven social marketing interventions conducted within community settings and presented across three key social marketing process stages: formative research, implementation, and evaluation. The interventions included in this category targeted a wide range of groups, including
teenagers (Glik et al., 2001), parents and young people (Kypri et al., 2005), and chronic homeless (James and Skinner, 2009).

All but one intervention (Glik et al., 2001) reported conducting formative research with their respective target groups. Unlike in campus-based interventions where only one intervention (Thompson et al., 2013) reported the involvement of two different stakeholder groups in the formative research, four of the community-based intervention reported the involvement of more than one stakeholder group (Glik et al., 2008; Kypri et al., 2005; Rivara et al., 2011; Rothschild et al., 2006). Other stakeholder groups included wider community, schools, customers, policy makers, shareholders, suppliers, and employees. Similarly to the campus-based interventions, the evaluations in community-wide interventions were focused on the main target groups in all but two interventions. Rothschild et al. (2006) included four different stakeholder groups in their evaluation: community, shareholders, employees, and policy makers.

Like in campus-based interventions the implementation stage included the highest number of stakeholders across all interventions conducted in communities. The number of stakeholders ranged from one to nine (Kypri et al., 2005). The involvement of media (Kypri et al., 2005; Perkins et al., 2010; Rivara et al., 2011) and NGOs (Glik et al., 2008; James and Skinner, 2009; Kypri et al., 2005) was much higher in community interventions than in other interventions. The media were involved in two ways: either as paid tools to disseminate messages or unpaid collaborators. Other stakeholder groups involved in the implementation stage included policy makers (James and Skinner, 2009; Kypri et al., 2005; Rivara et al., 2011; Rothschild et al., 2006), city council (James and Skinner, 2009), alcohol suppliers (Kypri et al., 2005), local police (Kypri et al., 2005), health sector (Kypri et al., 2005), schools (Kypri et al., 2005), and bar owners and employees (Rothschild et al., 2006).
6.7.3 Medical centre interventions

Table 18 outlines the stakeholders involved in each key stage of the social marketing process for interventions conducted in medical centres. The interventions included in this category targeted a narrowly defined group: health and medical professionals.

All three interventions reported conducting formative research with their main target group – health/medical professionals – as well as the group whose alcohol consumption behaviours the interventions indirectly aimed to change – patients. One intervention,
Payne et al. (2011), reported the involvement of three different stakeholder groups in the formative research, namely policy makers, NGOs, and wider community. In the evaluation stage all three interventions focused on their main target group, and only Aalto et al. (2003) included an additional group – patients.

Also in this category the implementation stage included the highest number of stakeholders across all interventions conducted in medical centres. All interventions included health/ medical professionals and NGOs, while Aalto et al. (2002) and Lock (2004) included also patients. Other stakeholder groups involved in the implementation stage included wider community (Aalto et al., 2003; Payne et al., 2011) and policy makers (Heather, 2006; Payne et al., 2011).

**Table 18: Medical centres**

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>TARGET GROUP</th>
<th>FORMATIVE RESEARCH</th>
<th>IMPLEMENTATION</th>
<th>EVALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aalto, 2003</td>
<td>Medical professionals</td>
<td>Medical professionals, patients</td>
<td>Medical professionals, patients, policy makers, NGOs, community</td>
<td>Medical professionals, patients</td>
</tr>
<tr>
<td>Lock, 2004</td>
<td>Health professionals</td>
<td>Health professionals, patients</td>
<td>Health professionals, patients, NGOs</td>
<td>Health professionals</td>
</tr>
<tr>
<td>Payne, 2011</td>
<td>Health professionals</td>
<td>Health professionals, patients, policy makers, NGOs, community</td>
<td>Health professionals, policy makers, NGOs, community</td>
<td>Health professionals</td>
</tr>
</tbody>
</table>

**6.7.4 School interventions**

Table 19 outlines the stakeholders involved in each key stage of the social marketing process for interventions conducted in school settings. The interventions included in this category targeted a narrowly defined group: teenage students.

All but one intervention (Rundle-Thiele et al., 2013) reported conducting formative research with students, the main stakeholder group. All of the interventions reported their evaluation focusing on students, and Slater et al. (2006) additionally involved one additional stakeholder group.
Also in this category the implementation stage included the highest number of stakeholders across all interventions conducted in school. All interventions included students, while Slater et al. (2006) and Rundle-Thiele et al. (2013) included also school administration. Other stakeholder groups involved in the implementation stage included wider community (Rowland et al., 2013; Slater et al., 2006), NGOs (Rundle-Thiele et al., 2013), and a local council (Rowland et al., 2013).

**Table 19: School interventions**

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>TARGET</th>
<th>FORMATIVE</th>
<th>IMPLEMENTATION</th>
<th>EVALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slater, 2006</td>
<td>Students</td>
<td>Adolescents</td>
<td>Students, school administration, community, media</td>
<td>Students, key community coalition and school district participants</td>
</tr>
<tr>
<td>Rowland, 2013</td>
<td>Students</td>
<td>Students</td>
<td>Students, community, local council</td>
<td>Students</td>
</tr>
<tr>
<td>Rundle-Thiele, 2013</td>
<td>Students</td>
<td>Not reported</td>
<td>Students, school administration, NGO</td>
<td>Students</td>
</tr>
</tbody>
</table>

**6.8 Conclusions**

There is a growing interest in studies attempting to establish the current state of knowledge within different areas of marketing and social marketing (Truong, 2014). This paper contributes to this research focusing on the extent of stakeholder involvement in social marketing interventions in the area of alcohol consumption. Calls have been made to extend the focus of social marketing from the downstream to the upstream (Hoek and Jones, 2011), and from the micro to the macro level (Gordon and Gurrieri, 2014), to include much wider groups of stakeholders in the efforts to combat complex problem areas, including (but not limited to) binge drinking and to minimise harm from alcohol consumption (for example Leverton and Evans, 2008). This study clarifies how stakeholder theory can be used to consider inclusion of key stakeholder groups at various stages during the social marketing process to ensure that social marketing practitioners and researchers extend their thinking beyond a single stakeholder group in the context of minimising alcohol related harms. Through the process of a systematic literature review, 23 social marketing interventions were identified. As the type of stakeholders involved in social marketing interventions may depend on the context of the intervention, the interventions in this study were grouped into one of the four main categories: university
campus interventions (10), community interventions (7), school based interventions (3), and interventions in medical centres (3). The involvement of different stakeholders at each of three key stages of the social marketing process was analysed: formative research, implementation, and evaluation (Lefebvre and Flora, 1988; Walsh et al., 1993).

Systematic reviews close the gap between theory and practice, as well as policy making, by providing evidence (Hastings, 2007). Identification of the gaps in the literature provides evidence for new studies (Petticrew and Roberts, 2005) and further research focusing on the identified trends and gaps. Recognition of which stakeholders should be considered in interventions may help practitioners and academics to enhance effectiveness of interventions in the long term. In the current paper, across all 23 interventions, all but one focused only on one precisely defined target group; Kypri et al. (2005) was the only intervention that included two target groups: teenagers and their parents. In all interventions, the relevant target group was involved in formative research, implementation and evaluation. Only four interventions did not report any formative research (Brown, 2004; Clapp et al., 2005; Glik et al., 2001; Rundle-Thiele et al., 2013).

According to Stead and McDermott (2011), evaluation in social marketing should assess the delivery process, the immediate outcomes, and long-term impact of the intervention. This review also indicates a restricted stakeholder focus in social marketing interventions aiming to minimise harm from alcohol consumption during the evaluation stage, with only six interventions involving stakeholders other than their target groups in evaluation (Aalto et al., 2003; Glider et al., 2001; Glik et al., 2001; Kypri et al., 2005; Rothschild et al., 2006; Slater et al., 2006). The results of the current study are consistent with Gordon et al. (2006), who noted evaluation in social marketing is process-orientated rather than outcome focused. At a minimum, social marketers should evaluate the primary stakeholders who are involved in intervention delivery to understand how the delivery process can be improved. However, behaviour change occurs in a more complex social context, and therefore assessment of multiple stakeholders to fully assess the effectiveness of the intervention is recommended. An evaluation that is target audience-focused provides a restrictive view that may not be able to assist to identify how social marketing interventions can be improved to optimise behavioural outcomes and ensure sustained stakeholder involvement over time, thereby ensuring longevity of a social marketing intervention. Such consideration would ensure that social marketers are aware of any barriers that are impeding social marketing intervention delivery. Understanding of the barriers experienced during the delivery of interventions by the various
stakeholders involved would ensure intervention reach can be maximised, thereby improving the desired outcomes in the target audience and ensuring intervention sustainability.

Regardless of the intervention scale and focus, social marketing practitioners deal with multiple stakeholders on a daily basis. While different approaches have been identified in social marketing literature, including systems level social marketing (Domegan et al., 2013; Hastings and Domegan, 2014; Kennedy and Parsons, 2012), relationship marketing (Hastings and Saren, 2003; Margues and Domegan, 2011), community mobilisation (Kelly et al., 2003), and community-based social marketing (McKenzie-Mohr and Smith, 1999), stakeholder theory provides a management framework allowing social marketers to focus on identification and coordination of stakeholders, understanding their interests and importance to the solution of the social problem, and managing stakeholder relationships. A stakeholder approach offers a framework that supports the intervention process, from programme design to implementation and evaluation.

Involving all primary stakeholders in formative research will ensure informed, rational and evidence-based interventions (Wymer, 2011), and gaining support from stakeholders directly affected is likely to lead to better and sustainable outcomes (Donaldson and Preston, 1995; Fletcher, 2003). Consider an intervention whose aim is to change alcohol consumption on premise in nightclubs. Formative research on the target audience (nightclub patrons) conducted via observations could establish that serving water with alcohol can reduce drinking on premise (for example see Rundle-Thiele, 2009). Absence of research on key stakeholders, such as nightclubs, may lead a social marketer to naively conclude that serving water is the key to reducing alcohol consumption on premise without understanding water supply harms profits for nightclub owners. Given that alcohol drinking can be altered based on the shape and length of glasses (Troy et al., 2015; Wansink and Van Ittersum, 2005), equally attractive alternatives are available that can be used to both reduce alcohol drinking while maintaining current profit levels for nightclub owners who are a key stakeholder in alcohol drinking on premise, thereby ensuring sustainability of programmes developed.

Stakeholder theory provides social marketing with an opportunity to systematically identify, prioritise, include, and manage stakeholder relationships in social marketing programmes to ensure that designed programmes are sustainable in the long term. Behaviour change, the ultimate goal of social marketing, requires an orchestrated effort (Andreasen, 2006; Hastings and Saren, 2003) and is more likely to occur when supported
by an external environment; therefore, establishing and managing long-term partnerships
that include different groups of stakeholders is important. Potential problems, such as
conflicts between stakeholders due to different interests (Hoek and Jones, 2011) and
differences between stakeholders’ expectations (Bryant et al., 2000; Lefebvre, 2006), may
be overcome through identification of key relationships among stakeholders.

Taken together, the results suggest that community interventions may involve a higher
degree of complexity requiring consideration of a broader array of stakeholders at each
key stage of the social marketing process when compared to more narrow contexts, such
as school, medical, and university settings. Social marketers need to understand the
degree of complexity involved in the intervention to make decisions about the extent that
stakeholders should be involved. The results of this study suggest that the more complex
the setting the greater the number of stakeholders should be involved in intervention
planning, implementation and evaluation.

There are several limitations to this study. First, the search strategy focused on studies
that self-identified as social marketing interventions. However, it is possible that there are
number of interventions that could possibly be classified as social marketing, or look at
other approaches to behaviour change, yet were not identified as they did not directly
state they were a social marketing intervention. Second, the stakeholder groups were only
included in the analysis when they were clearly identified in at least one of the papers
identified in the literature search and relevant to a given intervention. Other stakeholder
groups could have been included in interventions yet were not reported in publications.
Third, the search was limited to papers published after 2000 and excluded some
interventions conducted earlier which might have included additional information about
stakeholders used in social marketing interventions. Future research should be undertaken
to overcome the identified research limitations. For example, studies focusing on
discussions of upstream and downstream factors, community mobilisation, and action
research should be reviewed as they may implicitly use stakeholder theory. Further
insights might be provided by looking into other areas of social marketing, for example
smoking, environment, physical abuse, healthy eating, and physical activity, when the
role and level of involvement of various stakeholders might be different. Last but not
least, future research should explore whether there is a relationship between the
involvement of stakeholders and the effectiveness of social marketing activities, and what
the nature of that relationship is.
Acknowledgements

The Victorian Health Promotion Foundation (VicHealth) funded and supported this research. The authors wish to acknowledge research assistance provided during the research design and data collection stages of this project.
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Publishers.


Zainuddin, N., Previte, J., Russell-Bennett, R., 2011. A social marketing approach to value creation in a well-women’s health service. J. Mark. Manage. 27 (3–4), 361–38
Chapter 7 – Discussion and conclusion

7.1 Overview
The ultimate goal of social marketing, i.e. behaviour change, is a complex issue and changing behaviour involves orchestrated efforts of different stakeholders representing various groups within a society (Hoek & Jones, 2011). A systematic assessment of the stakeholders involved in behaviour change interventions was previously absent in social marketing literature. The current research represents an initial attempt to take a broader perspective of alcohol consumption behaviours in licensed premises to gain insights that extend beyond the individuals targeted for change, and to then understand which stakeholder groups should be prioritised to ensure the support of planned programs by key stakeholders. The overarching proposition is that for more sustainable outcomes to be attained, the inclusion of stakeholders in social marketing intervention planning, implementation and evaluation is required.

This final chapter starts with a brief overview of the research purpose and design, and continues by discussing each research question before outlining the methodological, theoretical and practical contributions of this research. Finally, the practical implications arising from this research are summarised, before the limitations of the current study and a future research agenda are outlined. The chapter finishes with a brief section highlighting the main conclusions from this study.

7.2 Restatement of the research purpose and design
There are multiple stakeholders involved in behaviour change efforts in social marketing interventions (Buyucek et al., 2016; Truong & Dang, 2017). While scholars have discussed how to manage the involvement of multiple stakeholders in social marketing interventions (Lefebvre, 2006; Luca, Hibbert, & McDonald, 2016), a review of the literature identified only limited reporting of stakeholder involvement in formative research, implementation and evaluation stages of social marketing interventions that aimed to minimise harm from alcohol consumption (Buyucek et al., 2016). This study is set in the context of alcohol drinking, in which excessive alcohol consumption continues to pose a threat to individuals (WHO, 2014) and society as a whole (FARE, 2015), suggesting additional research focus is warranted. The overall aim of this thesis was:
To understand drinking behaviour in licensed premises by extending understanding beyond the individuals targeted for change. This research attempts to understand and theoretically discuss whether a stakeholder-driven approach may offer an alternative to social marketing campaign development, implementation and evaluation.

A pragmatic approach was taken to address the research aim and a mixed method design was employed to answer three research questions:

**RQ1:** Which factors impact moderate drinking practices?

**RQ2:** What are patrons’ drinking patterns and influential factors of alcohol consumption in licensed premises?

**RQ3:** Which stakeholders were involved in social marketing interventions targeting problem alcohol drinking?

The mixed method design entailed two steps. First, phase one involved two studies that aimed to understand alcohol consumption in licensed premises from both a micro (individuals’ self-reported and observed drinking behaviour) and meso (serving and group influences on drinking behaviour) perspective. An online survey was employed to investigate AEs and DRSE (ability to refuse an alcoholic drink), and practical actions that adults aged 18 years and over apply to moderate their alcohol consumption. Next, an observation study was conducted in a licensed premise that allowed alcohol drinking to be observed in a natural drinking setting. Individual, social and environmental factors were observed to empirically examine their effects on alcohol consumption in one licensed venue. Study 2 was a systematic literature review that was designed to investigate the extent of stakeholder involvement in social marketing interventions aiming to minimise harm caused by alcohol.

The main findings of each of the three studies were discussed in detail, respectively in Chapter 4 (Study 1a) - A solution based approach: An empirical examination of factors influencing moderate drinking practices, Chapter 5 (Study 1b) - Observing alcohol drinking in licensed premises: A formative social marketing study, and Chapter 6 (Study 2) - A systematic review of stakeholder involvement in social marketing interventions. A synthesis of all three studies is outlined in the next section to answer the research questions and to fulfil the overarching purpose of the larger formative research project.
7.3 Addressing the research questions

7.3.1 Research question 1

The first research question investigated in this research project was: (RQ1) Which factors impact moderate drinking practices? An online survey was conducted to explore the factors influencing moderate drinking practices. A total of 650 complete responses was received. DEP (Young & Oei, 1993) and MDPs (NDSHS, 2013) measures were employed to gain insights into AEs, DRSE and the practices that were reportedly used to moderate drinking. The main objective of the study was to understand how alcohol drinking is moderated and to examine factors which may be correlated to MDPs. The interaction between AEs, DRSE and MDPs were investigated through SEM.

The findings of the study indicated that females applied MDPs more frequently compared to males. The most frequently applied moderate drinking actions were having non-alcoholic drinks (78.6%) and deliberately alternating between alcoholic and non-alcoholic drinks (78.6%). Negative expectancies did not impact MDPs, while confidence enhancement and sexual enhancement expectancies were (significantly) negatively associated with MDPs. Insights gained in the current study indicate that alcohol is consumed to enhance self-confidence in social situations, which is consistent with the prior literature (Engels, Wiers, Lemmers, & Overbeek, 2005). There was a statistically significant relationship between MDPs and DRSE and this interaction was consistent with prior literature (Fry, 2010; Lee & Oei, 1993). However, DRSE did not mediate the relationship between MDPs and AEs, which is inconsistent with previous findings (Connor et al., 2011; Engels et al., 2005).

Overall, this study suggested that there is no gender differences on sexual and confidence enhancement expectations (p > .005), while cognitive enhancement expectations; female (M=1.9, SD= 0.6), male (M = 2.1, SD= 0.75) and DRSE female (M=5.1, SD= 0.84); male (M = 4.8, SD= 0.95) significantly different between females and males.

In addition, moderate drinking behaviour was more frequently applied by females. Therefore, it can be suggested that, messages that target encouraging males’ applying self-efficacy can be designed.

Further, based on insights gained in study 1a, drinking environments can be shaped to encourage and assist MDPs. Mandatory menu components such as low alcohol drinks,
low alcohol or non-alcohol cocktails (e.g. mocktails and soft drinks) can be introduced or mandated via responsible service practice policy.

Study 1a contributed to the literature by quantifying MDPs for the first time. Further, the interplay between AEs, DRSE and MDPs was investigated for the first time in the literature, extending the behavioural focus beyond binge drinking (problem focus) towards a solutions-focused outcome.

7.3.2 Research question 2

Study 1b sought to extend insights gained in study 1a beyond the individuals targeted for change to understand whether social and environmental factors may impact alcohol drinking, to identify (RQ2) what are patrons’ drinking patterns and influential factors of alcohol consumption in licensed premises? A covert observation study was conducted in South East Queensland, Australia and 632 licensed premise customers were observed over 17 consecutive days. An observation instrument was developed based on an earlier study (Rundle-Thiele, 2009) that contained measures of drinking patterns, drinking duration, drinking quantity and time spent drinking on premise. The main objective of study 1b was to explore alcohol drinking and factors associated with alcohol drinking in a natural drinking setting.

Behaviour is shaped by a wide range of different factors (Hoek and Jones, 2011); for example, interpersonal (micro) factors such as gender and personality (Stokols, 1996), community level (meso) factors such as domestic or public drinking contexts (Hughes et al., 2011) and, organisational (macro) factors such as policy. Therefore, while interpersonal factors may not be controlled, meso and macro factors can be shaped to influence behaviours. While macro factors require long time effort, environmental factors that influence the immediate surroundings of the individuals can be modified to support desired behaviours, hence the investigation and identification of those factors is crucial. Understanding which factors contribute to drinking are vital to understand the cumulative effects of different factors on alcohol drinking behaviour (Stokols, 1996). During the pilot study it was observed that straws impacted the duration of drinking and hence the quantity of alcohol consumed. Given that behaviour is shaped by environmental determinants and the social environment which includes serving practices (Attwood et al., 2012; Graham et al., 2006), straw use was included in the main observation instrument ensuring a directly observable social factor (serving practices) could be explored. Social factors (group size), serving practices (straw), and individual demographic factors (gender and
smoking status) were investigated via multiple regression analysis to extend understanding beyond the targeted individual to the wider surrounding environment.

The main finding of the study was that individual characteristics and social factors impact alcohol drinking patterns, as do serving practices. Key stakeholders’ practices influence the behaviour targeted for change, therefore stakeholders need to be involved to a greater extent throughout all stages of social marketing.

Individual characteristics such as smoking status were found to impact alcohol consumption. For instance, smokers consumed more alcohol compared to non-smokers, which is consistent with prior research (Barmpagianni, Travlos, Kalokairinou, Sachlas, & Zyga, 2014; Marsh et al., 2016; Reed, Clapp, Lange, & McCabe, 2011). Social factors such as group size, buying in rounds, and smoking escalated the total duration of the drinking episode. Further, the quantity of alcohol consumed in one drinking episode was significantly impacted by buying in rounds, group size, and the number of drinks consumed through a straw. These findings are consistent with Knibbe et al. (1993) and Oostveen, Knibbe and De Vries (1996). For example, prior research indicates that venue serving practices such as straw usage impact alcohol consumption (Attwood et al., 2012; Graham et al., 2006). In the current study the quantity of alcohol consumed in one drinking episode was higher when straws were used.

Study 1b identified that serving practices (serving drinks with a straw) and social factors (group size) were more influential than individual factors impacting drinking behaviour. In other words, external factors shaped by different stakeholders are more influential than individual factors. An overall discussion of the findings in study 1b suggests that alcohol consumption is impacted by factors extending beyond individuals targeted for change. Thus, interventions that aim to minimise harm caused by alcohol should consider both social and environmental factors to ensure behavioural change can be delivered.

7.3.2.1 Integrating findings from the first stage of the research

The first phase of the current research centred on two studies, namely an online survey with adults aged over 18 years who have consumed alcohol in licensed premises in the past 12 months, and an observation study that observed people drinking in a natural drinking environment – one licensed premise. Table 20 summarises key findings of the first two studies.

Table 20: Stage one key findings and implications
<table>
<thead>
<tr>
<th>Key findings</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDPs are applied more frequently by females</td>
<td>Supportive landscape for MDPs i.e. water stations’ visibility, increase percentage of low and non-alcoholic drinks and mocktails</td>
</tr>
<tr>
<td>Confidence and sexual enhancement expectations are negatively associated with MDPs</td>
<td>Alternate events that encourage people to meet and interact in settings that are alcohol free are needed</td>
</tr>
<tr>
<td>DRSE impact MDPs</td>
<td>Encouragement of self-efficacy to refuse alcohol</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study 1a</th>
<th>Study 1b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convergence between genders</td>
<td>Discouraging straw usage</td>
</tr>
<tr>
<td>Buying in rounds, straw usage, and group size impact volume of alcohol consumed</td>
<td>Discouraging buying in rounds</td>
</tr>
<tr>
<td>Buying in rounds, smoking, and group size impact total duration of the drinking episode</td>
<td>Small tables and reduction of large floor spaces to minimise group size</td>
</tr>
<tr>
<td></td>
<td>Visible water stations</td>
</tr>
<tr>
<td></td>
<td>Smoking areas can be reduced or totally eliminated</td>
</tr>
</tbody>
</table>

Study 1 was a formative research study that was designed to deliver actionable insights that may be used to inform a social marketing program to be implemented within licensed premises. The study indicated that limiting formative research to a sole focus on the individuals targeted for change limits understanding, and suggested that a wider focus on key stakeholders is required to deliver behavioural change. Changes identified in the formative research study can only be reliably implemented if they are supported by policy and management practice(s). For example, licensed premise managements need to understand the consequences of changes and be assured their bottom line will not be negatively impacted for changes to be sustained. The findings of studies 1a and 1b suggest that consideration of the key stakeholders who impact alcohol drinking is needed for changes made to be sustained. Therefore, an investigation into which stakeholders should be involved in future formative research is needed to determine the stakeholders to consider next in a program of formative research that aims to design a social marketing program targeting problem alcohol drinking.
7.3.3 Research question 3

In order to understand which key stakeholders have previously been involved in social marketing formative research, implementation and evaluation in the context of problem alcohol drinking, a systematic literature review was designed to address the final research question: *(RQ3)* Which stakeholders were involved in social marketing interventions targeting problem alcohol drinking?

Key stages of social marketing interventions, namely the formative research, implementation, and evaluation stages, were examined via a systematic literature review to understand the extent of stakeholder involvement in social marketing interventions. Peer-reviewed journals published between January 2000 and May 2015 were investigated to obtain self-claimed social marketing interventions that aimed to reduce harm caused by alcohol. Twenty-three self-claimed social marketing interventions were identified.

According to study 2, the systematic literature review, narrowly focused (single target group) interventions dominated the current social marketing interventions aiming to reduce alcohol related harm. The number of stakeholders involved was highest during intervention implementation. Further, there was greater stakeholder involvement in complex settings, such as community level interventions, compared to interventions with a narrow focus, such as schools and universities. The systematic literature review focused on identifying social marketing interventions aiming to minimise harm from alcohol consumption. The review identified a broad range of studies conducted across different contexts. Interestingly, ten out of 23 identified interventions were conducted on university campuses indicating a dominant university context. This indicates an opportunity for future research to extend interventions addressing problem alcohol use beyond university settings.

Despite its limitations, this study provides insights that can inform future social marketing interventions. The main implication of the current study for social marketers and other community and industry stakeholders is the overrepresentation of stakeholders during implementation, whereas formative research and evaluation stages frequently focused on a single target group. Interventions in all settings should avoid focusing on only one stakeholder group during formative research and evaluation as such a narrow perspective may not capture all potential problems thereby limiting effectiveness.

Stakeholder theory provides a framework to identify stakeholders to consider in social marketing interventions. While social marketers have limited financial and human
resources, all resources should be used effectively to maximise outcomes (Lefebvre, 2011b). In order to achieve enduring collaborations and long-term results, a management approach may assist to ensure program sustainability. Management approaches such as stakeholder theory (Freeman, 1984) may help social marketers to identify and prioritise the stakeholders who should be involved in social marketing programs to enhance outcomes delivered to society from social marketing investments made. Understanding each stakeholder, their interests, and barriers in formative research may assist to identify solutions that are practical for all those involved.

Further, assessment of the effectiveness of an intervention for the stakeholders involved in social marketing program implementation is recommended. The inclusion of primary stakeholders extends the evaluation process beyond individual behaviour change, and ensures that additional measures such as establishment and maintenance of partnerships are included as success indicators in social marketing interventions (Hastings, 2003; Lefebvre, 2013).

7.4 Contributions of the thesis
This thesis contributes to social marketing in three areas: a) methodology, b) theory, and c) practice. The next section will discuss the key findings of this research study to compare and contrast them with prior literature in order to identify the contributions made in this research study.

7.4.1 Contributions to methodology
First of all, while the general discussion in the field of social marketing is shifting from an individual to a broader systems focus (Domegan et al., 2016; Kennedy, 2015), research methodologies retain an individual focus (Kubacki et al., 2015; Truong & Dang, 2017). The research methods employed in social marketing need to adopt a new implementation mindset ensuring that methods used centre on understanding behaviours and broader social and built environmental factors that impact, aid, and contribute to the behaviour observed. Therefore, innovative research methodologies that consider multiple stakeholders and multiple factors that magnify underlying reasons are needed (Kubacki & Rundle-Thiele, 2017). The current study applied a multi-method research approach in the social marketing field, and the results of the study indicate that observation methods can provide insights extending beyond the individual targeted for change to understand how excessive alcohol drinking behaviour can potentially be reduced in a licensed premise. By understanding problem behaviours in natural settings, “the real reasons” for
behaviours can be uncovered and, therefore, interventions can be designed to deliver behavioural change (Clapp et al., 2007).

Secondly, human behaviour is shaped by environments where individuals perform the behaviour. For instance, in an alcohol drinking context it is reported that serving practices (Graham et al., 2006), glass shapes (Attwood et al., 2012), and policy (Gruenewald et al., 2015), among other factors, impact drinking behaviour. The current study extended understanding of environmental factors impacting drinking behaviour. For instance, drinking duration per serving unit was measured for the first time and the impact of serving drinks with straws was observed. Moreover, time spent by patrons in the venue was reported, which assisted in obtaining a more detailed picture of alcohol drinking in licensed premises which extends our understanding of drinking beyond quantity, by observing the duration per serving unit. These contributions were detailed in Chapter 5.

7.4.2 Contributions to theory
This section presents the contribution to theory made by the three studies involved in the current thesis.

First, the current research project contributes by reporting the extent of stakeholder involvement in social marketing interventions aiming to minimise harm from alcohol consumption. As stated previously, drinking behaviour is shaped by different stakeholders, and the predominant focus on individuals targeted for change is limiting social marketing research and practice. The current study demonstrated empirically that alcohol drinking influences extend beyond individual predispositions to social factors and serving practices impacting alcohol consumption in licensed premises. Further, the current study identified limited inclusion of stakeholders in the formative research stage which may be impeding the success of social marketing interventions, given that stakeholders such as licensed premise owners and employees are directly impacted by any changes in drinking behaviour. A failure to include stakeholders in social marketing intervention planning will impact program sustainability. Agreement on planned interventions would potentially provide better outcomes (Nangoli et al., 2016). In fact, the inclusion of different stakeholders has been reported to have positive outcomes on behaviour change interventions (Beierle, 2002; Gregson et al., 2001).

Further, a review of the literature indicated that theory use in social marketing is scant and when a theoretical base is reported, the theories applied are largely those that focus on individual change (Luca & Suggs, 2013; Truong, 2014; Truong & Dang, 2017). When
social marketing interventions in the alcohol context were examined it was evident that social marketing programs are delivered in complex settings with the involvement of multiple stakeholders (Buyucek et al., 2016). Theories focusing on an individual targeted for change may limit insights gained during intervention planning and, moreover, provide insufficient understanding of factors affecting the success or failure of an intervention for other stakeholders involved. Although scholars have attempted to discuss the complexity of alcohol consumption settings using notions such as relational paradigms (Hastings, 2003), guiding theories that assist social marketing practitioners to manage partnerships warrant consideration. Further, calls to extend social marketing beyond the individuals targeted for change have been long-standing in social marketing and systems thinking (Hastings, 2003). Taken altogether, an examination of social marketing literature indicated that alternate theoretical perspectives were warranted. A management theory, namely stakeholder theory (Freeman, 1984), was considered in the current research to explore its potential for social marketing practitioners.

Full application of a stakeholder approach in social marketing requires a core objective of obtaining extensive views on the issue from the key stakeholders who shape the behaviour change process. Formative research insights gained in the current study uncovered a range of modifiable factors that could be used to create environments that support behavioural change (Donovan, 2011). However, modifications such as supplying water to alternate with alcoholic beverages may be perceived by licensed premise stakeholders to reduce their revenues, and as such, this initiative may not be supported by this group. Capturing the most important stakeholders and communicating with them is as important as communicating with the individuals targeted for change (MacFadyen et al., 2003). This thesis proposes that planning of social marketing interventions securing full stakeholder involvement would permit potential barriers to program implementation to be addressed before the program is implemented, ensuring that a sustainable program, endorsed by the key stakeholders, is delivered.

Application of a stakeholder management approach may facilitate supportive environments created to deliver behavioural change (Beierle, 2002). Based on relationships observed in commercial settings, application of a stakeholder management approach may assist to more effectively manage limited financial, human and time resources (Garcia-Castro & Francoeur, 2014). Further, when social marketing interventions are planned with a stakeholder approach from the outset, continuity of partnerships may be ensured (Clapp et al., 2005). Developing sustainable partnerships
would, in turn, help to promote behaviour change over the long term, since behaviour change does not happen overnight.

### 7.4.3 Contributions and implications for practice

This research inquiry was driven by the need to better understand drinking practices, to understand the role of key stakeholders such as licensed venues in shaping those drinking practices, and based on those understandings, to explore how responsible and moderate drinking might be facilitated. The results of this research inquiry can be applied to deliver strategies for the greater social good.

According to the Australian Government (2015) demand, supply and harm reduction are the three accepted pillars of the harm minimisation approach. The current study’s findings suggest that demand reduction can be supported by interventions that provide environments that are conducive to moderate drinking practices. Supply reduction can, in turn, be supported by policy that regulates drinks menu composition and serving practices; and harm reduction can be supported by stakeholder involvement in social marketing interventions in an orchestrated effort to sustain behaviour change. The practical implications arising from this thesis will be discussed according to the three pillars of alcohol harm minimisation strategy adopted nationally (Australian Government, 2015).

Demand reduction strategies consist of activities that prevent uptake, and delay the first use of any kinds of drugs including alcohol, to reduce the harm resulting from use of any substance (Australian Government, 2015). MDPs are practical actions that can be applied in social situations (Previte, Fry, Drennan, & Hasan, 2015). The current study’s findings suggest that DRSE has a direct and positive impact on MDPs. Therefore, interventions that aim to increase the proportion of people drinking alcohol moderately need to increase DRSE. DRSE in the current study captured self-reported confidence to resist a drink on a 6 point scale (1=I am very sure I could not resist drinking/ 6=I am very sure I could resist drinking) capturing a broad range of social and daily settings that adults face.

Alcohol marketing delivers associations with alcohol and a wide array of settings (Jernigan, 2010). Consider champagne and its association with celebration, Corona and the sun and sand, and Australia’s own VB, which has historically been the reward for a hard day’s work. Alternate settings or competing alternatives that are associated with the same social and daily situations are needed to overcome the pervasive effect of alcohol marketing.
Additionally, demand can be reduced through policy change. For instance, low and non-alcohol beverages can be designed to provide a diverse and attractive range of drinking options changing menu composition. Further, those actions can be supported by policy to mandate low and non-alcoholic drink provision on licensed premise menus. In addition, smoking status has an impact on the volume of alcohol consumed in licensed premises. Therefore, in order to decrease the demand for alcohol by smokers in licensed premises, having fewer designated smoking areas or banning smoking areas in licensed drinking venues altogether by law is recommended (Kalkhoran, Lisha, Neilands, Jordan, & Ling, 2016).

Supply reduction involves reducing the availability and accessibility of alcohol. Although there is discussion around limiting trading hours for supply reduction in Queensland, Australia (Palk, Davey, Freeman, & Morgan, 2012), other alternatives which may be more appealing to individuals targeted for change and other alcohol stakeholders exist. The findings from the three studies presented in this thesis suggest that several different factors contribute to the volume of alcohol consumed in licensed premises, including the time that individuals spend on premise, while survey insights indicated that adults aged over 18 years employ a wide range of actions to drink alcohol moderately. The provision of low alcohol beverages in all licensed premises would reduce the amount of alcohol consumed in licensed premises. The results of the current study indicate that mandatory menu components can be introduced via responsible alcohol serving policies. Offering low alcohol cocktails, non-alcoholic mocktails and soft drinks should be mandated to reduce problem alcohol drinking. Further, water intake is recommended (e.g. mandated water stations). In addition, straws can be banned to lower the quantities of alcohol consumed in licensed premises.

7.6 Limitations of the study

Recognition of the limitations of the research is important. Therefore, the current section outlines the limitations of the overall study. Firstly, only one stakeholder group was captured in the current formative research study (Study 1) which, while consistent with previous research aiming to reduce problem alcohol use (Clapp et al., 2005; Gomberg et al., 2001; Kypri, Cronin, & Wright, 2005; Perkins, Linkenbach, Lewis, & Neighbors, 2010; Vinci et al., 2010), is limited given the lack of stakeholder inclusion identified in Study 2. Therefore, this study limitation must be acknowledged. In future, further formative research should be extended to other stakeholders, such as staff in licensed premises including serving staff (bartenders, bar managers, venue managers, security,
DJs), licensed premise owners, alcohol suppliers, policy makers (police and legislators), and community organisations (i.e. churches, NGOs), who may have an impact on alcohol consumption behaviour in licensed premises, prior to and during social marketing strategy formulation, delivery and evaluation. In addition, further research is needed to provide more insights into other stakeholders and their role in shaping consumption practices.

Secondly, the current study is limited to formative research which has gained insights into possible strategies that could be implemented to deliver behavioural change and key stakeholders who should be involved throughout the social marketing process. Pilot testing applying an experimental design is required to determine whether identified strategies can deliver effective behavioural change. For instance, testing in environments that support MDPs is advised, as a result of the research undertaken in this thesis.

Next, the MDPs construct was drawn from previous work (Previte et al., 2015) and it is important to note that this exhibited validity issues when standard psychometric testing procedures commonly applied in marketing research practice (confirmatory factor analysis) were used in Study 1a. Future research is recommended to develop a more robust measure of MDPs and consideration needs to be given to determine if psychometric testing is most appropriate given that MDP captures a series of different behaviours that people self-report.

Last, Study 1b was conducted in only one venue at one time of the year, and was limited to the measures included in the observation instrument. However, drinking is impacted by various factors. Other possible factors such as preloading (Foster & Ferguson, 2014), gender mix in groups (Knibbe et al., 1993), and context of the drinking episode (Callinan, Livingston, Room, & Dietze, 2016), are not captured in the current study. Therefore, future studies should aim to extend observations beyond one licensed premise and should consider enhancing the observation instrument to capture more data.

7.7 Future research directions

The current study provides several opportunities to guide future research.

First of all, future research is required to investigate how social marketing professionals identify and select stakeholders included in social marketing interventions, or to better understand techniques and approaches used to prioritise stakeholders. A study is needed to explore social marketers’ opinions and barriers to how they approach stakeholders and to understand the types of stakeholders involved in their change efforts. Further, identification techniques, which identify and prioritise those stakeholders most important
to the “firm’s” survival, from stakeholder literature (Beierle, 2002; Bryson, 2004; Fletcher, 2003) can be investigated and, if relevant, can be adapted for social marketing literature.

Secondly, future research should consider the key stakeholder groups in formative research. One of the main findings of this thesis was that virtually all interventions have been focused solely on individuals. Analysis in Study 2 indicated that most stakeholder involvement occurred during the implementation stage. Interventions should be designed and implemented based on formative research insights that include the input from multiple key stakeholders in the project planning stage. The effectiveness of a stakeholder-driven approach should be empirically tested to investigate whether a stakeholder approach is more effective than the individual-driven approaches that currently dominate social marketing research. For example, an outcome and impact assessment could be undertaken to compare and contrast the application of a stakeholder informed program in one region with a more traditional, individual-centric approach in a matched pair region in the same context, e.g. problem alcohol use. By considering the relative investment and consequent program outcomes, such efforts would provide evidence for the scientific and social marketing community to understand whether the higher investment needed to research all stakeholders would deliver enhanced program outcomes in terms of behavioural change and return on program investment.

The current study is limited to formative research, and outcomes of the current studies can be used to develop interventions for testing to evaluate behavioural change results. For example, the impact of straws on alcohol consumption can be tested using an experimental design starting with baseline observations, and in the intervention stage, removing straws from licensed premise serving for alcoholic drinks to assess the impact on alcohol drinking behaviour. Secondly, water stations can be used in an experimental research design to measure whether the impact of increased visibility and accessibility of water stations reduces alcohol intake in licensed premises using a cross-over design. For instance, it was observed that water was very infrequently consumed in the licensed premises in Study 1b. A case-controlled experimental design which measures water consumption in one venue at two time points can be conducted prior to introducing the change. A further series of measurements can be taken to understand how water serving practices impact alcohol drinking.

The observational study investigated one venue located in an inner city drinking precinct at one point in the year. Alcohol drinking varies, with peaks observed over
Christmas/New Year in Australia (Lloyd, Matthews, Livingston, & Jayasekara, 2011). Further, drinking rates are expected to differ based on venue type (Graham et al., 2006), location (Burgess & Moffatt, 2011) and venue characteristics (Briscoe & Donnell, 2003). A stratified randomised design with observations rolling over time is needed to quantify the relationships examined in this study permitting confidence intervals to be estimated.

Further factors that are impacted by gender in the study should be investigated in future research to draw a better picture of the factors that impact moderate drinking practices in terms of gender. Therefore, interventions can target either gender segments or, disregard gender based segmentation.

7.8 Conclusion

The current study was designed to investigate alcohol consumption in licensed premises by considering individual and environmental factors. Further, stakeholder involvement in social marketing interventions was investigated. Relational paradigms in social marketing were discussed. Stakeholder theory was proposed as an alternative theoretical approach to identify and manage stakeholders involved in social marketing interventions.

The current study contributed to the literature by applying innovative research methodologies to observe alcohol consumption, exploring MDPs and, finally, investigating stakeholder involvement in social marketing interventions.

Results of the current thesis show that alcohol consumption is impacted by several factors that are shaped by different stakeholders from micro (individual), meso (venue operators and group influences) and macro (policy and legislation) levels. Insights gained during this formative research study suggest additional means to reduce problem alcohol drinking. Demand reduction can be supported by environments in which MDPs are encouraged and facilitated by, for example, mandatory low and non-alcoholic menu components, and reducing or eliminating smoking areas in licensed premises. Supply reduction via strengthened responsible alcohol serving policies can be supported by menu compositions which include low and non-alcoholic drinks. Harm reduction can be supported in collaborative efforts of all stakeholders shaping public drinking environments.

The investigation of existing social marketing interventions in Study 2 revealed that although behaviour is shaped by a range of stakeholders, social marketing interventions retain a focus on individual behaviour change. In addition, despite the use of theory being advocated by respected social marketing scholars and professional bodies, its application
in social marketing interventions remains scant; furthermore, where theory is applied, an individual focus predominates. However, given that social marketers typically operate within slender budgets and limited resources, employing a managerial lens to design, implement and evaluate social marketing interventions is likely to produce better outcomes and sustain behaviour change. Therefore, in order to achieve sustainable outcomes of social marketing interventions to reduce the harm associated with excessive alcohol consumption, this study advises the inclusion of all stakeholders shaping public drinking environments.
Appendices

Appendix 1: Questionnaire

1- Have you been in a bar or pub in the last year?
- Yes
- No (If no. Thank for taking your time to help this study. Exit survey)
2- Your beliefs about alcohol:

(Mark one response for each row below)
<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I do not drink alcohol to help me to unwind after a hard day or week’s work</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>When I am anxious or tense I do not feel a need for alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Drinking does not help to relieve any tension I feel about recent concerns and interests</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am more aware of what I say and do if I’m drinking alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Drinking helps me be more mentally alert</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Drinking alcohol sharpens my mind</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Drinking alcohol removes most thoughts of sex from my mind</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I tend to avoid sex if I’ve been drinking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I lose most feelings of sexual interest after I’ve been drinking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Drinking alcohol makes me tense</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Drinking makes the future brighter</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I drink alcohol because it’s a habit</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Drinking makes me bad tempered</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I feel that drinking hinders me in getting along with other people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I feel restless when drinking alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am more sullen and depressed when I’m drinking alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I cannot always control my drinking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Drinking increases my aggressiveness</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Drinking makes me feel like a failure</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am addicted to alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Drinking brings out the worst in me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Drinking makes me feel more violent</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am powerless in the face of alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>When I’m drinking I avoid people or situations for fear of embarrassment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I feel disappointed in myself when drinking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Little things annoy me less when I’m drinking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Drinking makes me feel outgoing and friendly</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I have more self-confidence when drinking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am less concerned about my actions when I’m drinking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>If I’m drinking it’s easier to express my feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I tend to adopt a “who cares” attitude when drinking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I feel less shy when drinking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
I am less discreet if I drink alcohol | 1 | 2 | 3 | 4 | 5
When I am drinking it’s easier to open up and express my feelings | 1 | 2 | 3 | 4 | 5
I am clumsier when drinking alcohol | 1 | 2 | 3 | 4 | 5
I often feel sexier after I’ve been drinking | 1 | 2 | 3 | 4 | 5
Drinking makes me more sexually responsive | 1 | 2 | 3 | 4 | 5

3- When you drink out how often do you do any of the following?

(Mark one response for each row below)

| Count the number of drinks you have | 1 | 2 | 3 | 4 | 5
| Deliberately alternate between alcoholic and non-alcoholic drinks | 1 | 2 | 3 | 4 | 5
| Make a point of eating while consuming alcohol | 1 | 2 | 3 | 4 | 5
| Quench your thirst by having a non-alcoholic drink before having alcohol | 1 | 2 | 3 | 4 | 5
| Only drink low-alcohol drinks | 1 | 2 | 3 | 4 | 5
| Limit the number of drinks you have in an evening (e.g. when driving) | 1 | 2 | 3 | 4 | 5
| Refuse an alcoholic drink you are offered because you really do not want | 1 | 2 | 3 | 4 | 5
4- How sure are you that you could resist drinking alcohol

(Mark one response for each row below)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>When I am out at dinner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I am watching TV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>When I am angry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When someone offers me a drink</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I am at lunch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I feel frustrated</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I feel upset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>When I feel down</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I feel nervous</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I am on the way home from work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I feel sad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When my spouse or partner is drinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I am listening to music or reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When my friends are drinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I am by myself</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I have just finished playing sport</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I am at a pub or club</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I first arrive home</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I am worried</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Drinking quantity**

********

**Demographics**

5- Please indicate your gender
- Female
- Male

6- Please indicate your age ********

144
7- What is your marital status
- Single, never married
- Widowed
- Divorced
- Separated but not divorced
- Married (including de facto or living with life partner)

8- What is the last school you completed?
- Pre-primary Education
- Primary Education
- Secondary Education
- Certificate Level
- Advanced Diploma and Diploma Level
- Bachelor Degree Level
- Graduate Diploma and Graduate Certificate Level
- Postgraduate Degree Level
- Other Education

9- Please indicate your employment status
- Employed, working full-time
- Employed, working part-time
- Employed, away from work
- Unemployed, looking for full-time work
- Unemployed, looking for part-time work
- Not in the labor force (i.e: student not working, disabled...etc)
10- Which of the following groups would represent your personal annual income from all sources?

- Negative income
- Nil income
- $1 - $7,799
- $7,800 - $12,999
- $13,000 - $20,799
- 20,800 - $31,199
- $31,200 - $41,599
- $41,600 - $51,999
- $52,000 - $67,599
- $67,600 - $83,199
- $83,200 - $103,999
- $104,000 or more
Appendix 2: Email for participation in survey

Dear Sir/Madam,

We invite you to complete a survey on your attitudes, expectations and drinking behaviours for a study titled “On premise alcohol consumption: A multi stakeholder perspective in social marketing”

You will be asked to answer questions about your drinking preferences and your attitudes, expectations towards drinking.

[Link to the survey was inserted here]

Ethical Approval Number: MKT/11/14/HREC

We know you are busy, so have designed the survey to take only 15 minutes.

Best regards,

Prof. Sharyn Rundle-Thiele
Dr. Krzysztof Kubacki
A/Prof. Sameer Deshpande
Nuray Buyucek
Appendix 3: Survey information sheet

PROJECT TITLE

On premise alcohol consumption: A multi stakeholder perspective in social marketing

INFORMATION SHEET

You are invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and consider whether you wish to participate. Please ask the researcher if there is anything that is not clear. Take time to decide whether you wish to take part.

Research team

<table>
<thead>
<tr>
<th>Prof. Sharyn Rundle-Thiele</th>
<th>Dr. Krzysztof Kubacki</th>
<th>A/Prof. Sameer Deshpande</th>
<th>Miss Nuray Buyucek</th>
</tr>
</thead>
<tbody>
<tr>
<td>Griffith University Business School, Department of Marketing- Social Marketing@Griffith 0737356446 <a href="mailto:s.rundle-thiele@griffith.edu.au">s.rundle-thiele@griffith.edu.au</a></td>
<td>Griffith University Business School, Department of Marketing- Social Marketing@Griffith 0737356498 <a href="mailto:k.kubacki@griffith.edu.au">k.kubacki@griffith.edu.au</a></td>
<td>Faculty of Management, University of Lethbridge +1 (403) 3295196; <a href="mailto:sameer.deshpande@uleth.ca">sameer.deshpande@uleth.ca</a></td>
<td>Griffith University Business School, Department of Marketing- Social Marketing@Griffith 0737356446 <a href="mailto:n.buyucek@griffith.edu.au">n.buyucek@griffith.edu.au</a></td>
</tr>
</tbody>
</table>
Why is the research being conducted?
Numerous researchers have found that excessive alcohol consumption causes disease and harm to the societies including, social, financial and emotional. There is a need to understand why alcohol is consumed in excessive levels and how harm caused by alcohol can be prevented. This survey is being conducted by researchers at Griffith University as part of a project that seeks to understand why alcohol is consumed in excessive levels and how harm caused by alcohol can be prevented. This is a student research aiming to understand drinking behaviour and its negative consequences and develop possible solutions from all stakeholders’ lenses. The expected benefits of the research include, understanding alcohol problem from all stakeholders’ lenses and develop effective strategies to prevent alcohol related negative consequences that costs to society.

What you will be asked to do?
This survey contains questions about your intentions, attitudes, expectations from alcohol and your drinking practices. And your responses cannot be linked to your individuality. The survey will take about 15 minutes complete and your consumption habits and opinions of alcohol will be asked.

Do I have to take part?
Your participation in this research is completely voluntary. It is up to you to decide whether or not to take part. There are no psychological or other risks involved in participating in this research project. Although there is no associated risk to the research and participants and the participation is voluntary; you can withdraw from the survey at any time until submitted by simply pressing CANCEL. Once you press submit you will not be able to withdraw as no data is linked to specific individuals and is therefore unidentifiable. Submission of your survey will be taken as consent to participate in this research.

Will my taking part in this study be kept confidential?
All information, which is collected, about you during the course of the research will be kept strictly confidential. At no stage will your name be recorded and the researchers will ensure that no interviewee can be identified from the information provided in any eventual publication(s) or reports(s). Any personal information about you will be kept separate from the study data. Individuals will not be identified in data and data will be stored in a password protected computer in Griffith University premises.
Feedback to you
The research project team’s intention is to publish the findings into academic and practitioner-focused papers and as conference papers. A summary of main findings will be made available to interested participants, please let the researchers know if you want to receive further information once the research project is completed. If you have any queries including the summary of results you can contact the research team identified above.

Contact for further information
Griffith University conducts research in accordance with the National Statement on Ethical Conduct in Human Research. If you have any concerns or complaints about the ethical conduct of this research project you should contact the Manager, Research Ethics on (07) 3735 4375 or research-ethics@griffith.edu.au. You are, of course, free to discuss your participation in this study with Nuray Buyucek (n.buyucek@griffith.edu.au).

Privacy statement
The conduct of this research does not involve the collection, access and/or use of your identified personal information. The information collected is confidential and will not be disclosed to third parties without your consent, except to meet government, legal or other regulatory authority requirements. Your anonymity will at all times be safeguarded. For further information consult the University’s Privacy Plan at http://www.griffith.edu.au/privacy-plan or telephone (07) 3735 5585.
Appendix 4: Observation instrument for pilot study

<table>
<thead>
<tr>
<th>Person</th>
<th>Beverage Consumption</th>
<th>Food Related</th>
<th>Smoking Related</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>No. in group</td>
<td>Buying in rounds</td>
<td>Start time</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 5: Observation instrument for the main study

<table>
<thead>
<tr>
<th>PARTICIPANT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total time</td>
<td>Start time</td>
</tr>
<tr>
<td>spent</td>
<td>Finish time</td>
</tr>
<tr>
<td>Gender</td>
<td>F/M/T</td>
</tr>
<tr>
<td>Number of</td>
<td>MIN/MAX</td>
</tr>
<tr>
<td>people</td>
<td></td>
</tr>
<tr>
<td>Straw</td>
<td>Y/N</td>
</tr>
<tr>
<td>Smoking</td>
<td>Y/N</td>
</tr>
<tr>
<td>Buying in</td>
<td>Y/N</td>
</tr>
<tr>
<td>rounds</td>
<td></td>
</tr>
</tbody>
</table>

Drink 1
- Start
- Brand/Type
- Bottle/Glass
- Serving size
- Food
- Finish

Drink 2
- Start
- Brand/Type
- Bottle/Glass
- Serving size
- Food
- Finish

Drink 3
- Start
- Brand/Type
- Bottle/Glass
- Serving size
- Food
- Finish

Drink 4
- Start
- Brand/Type
- Bottle/Glass
- Serving size
- Food
- Finish

Drink 5
- Start
- Brand/Type
- Bottle/Glass
- Serving size
- Food
- Finish

COMMENTS:
Appendix 6: Observation manual for the main study (Adapted from Graham, 2000)

OBSERVATION MANUAL FOR OBSERVERS

GUIDELINES FOR OBSERVING-THE XXXXX STUDY

Overview of the venue:

The XXX Hotel is a very well established and well known venue in the entertainment district of XXX, in the heart of Brisbane.

Established in XXXX and designed by the famous Brisbane architect XXXX, the XXX began its life as the XXX Hotel. Over the years, she’s reinvented herself time and again, and has witnessed her fair share of floods, renovations and social change. In 1996, the XXX rode the crest of the wave of social progression by becoming a gay bar. Today, the XXX continues to be a trailblazer, transforming herself into a place everyone can enjoy, through some of the biggest physical transformations the venue has seen to date.

For further information please visit:

www.xxxxxxhotel.com.au

Guidelines:

The guidelines for observers during the observation study includes the observation study’s general characteristics, role of the observers, characteristics of disorderly people, signs of an intoxicated person, and types of aggression.

General rules:

- Observations must be as unobtrusive as possible.
- You should act like an ordinary bar patron.
- Please dress appropriately, avoid any clothing and make up that may drive attention to you.
- Sitting should take place where you can see the maximum possible patrons while also avoiding interrupting any business practices.
- Please sit with another group member(s) and try to engage in a conversation but never avoid observation, this is your priority.
• You can drink one alcoholic beverage if you wish to, but if you think it may impact your performance please avoid alcohol wherever possible and instead choose to drink a non-alcoholic.

• While completing the observation data sheet, please try not to drive much attention to your recording act.

• Please try to avoid interaction with other patrons including staring or smiling.

• If you are approached it is your responsibility to give information about what you are doing if asked. If you are asked please offer to show the patron your recording sheet and also offer to remove them from the study if they so wish.

• Please do not engage in any activities in the bar, such as pokies and dancing.

• All observations will be conducted in mixed gender groups as advised by Graham (2000). By doing so, the accuracy of data can be ensured and provides good coverage. Please do not leave your group members unless you are tracking your observed object or going to rest rooms.

Recognition of an intoxicated person:

Some signs to recognise an intoxicated person;

Behaviour: Loud, boisterous, annoying to other patrons. Argumentative, slurring in speech, physically violent, bad tempered, aggressive, using offensive language, exhibiting inappropriate sexual behaviour, slower reaction time, over confidence.

Physical: Flushed face, swaying, red eyes, lack of focus, clumsiness, difficulty in walking straight, falling down.

Other: Difficulty in paying attention, vomiting, difficulty in lighting cigarettes, not hearing or understanding what is being said.

Aggression types:

Non-physical aggression (heated arguments, yelling, racism, sexism, homophobia…etc)

Minor physical aggression (grabbing, holding, unwanted sexual contact)

Moderate physical aggression (forcefully pushing, pulling, grabbing)

Severe physical aggression (punching, kicking, slapping)

If any aggressive incident happens, do not involve yourself in the act for your safety and listen the instructions given by the responsible person in the episode. If contact with the
responsible person is not possible at the time of the incident, please walk away from the incident as soon as possible to a safe place and call the police, security or the management of the bar.

Always be alerted to what is happening around including aggression which endangers yourself and other team members. Although hearing may not be possible due to high volume of music and other patrons’ conversations, please be aware of any body-language that may be indication of an aggressive person and ensure your own and other team members’ safety. If you observe anything illegal, it is your responsibility to report it to the bar management.

**Procedures:**

- Please meet up at the venue with other people in your shift and pose a normal friendship gathering.
- Secure the table you think is the most convenient/most unobstructed view for the observation session, please also make sure that your location is not going to interrupt any business practices. Where relevant, try to be in a position where you can see both the designated smoking area and the bar.
- Once settled you may go to the bar to order your drink. A 10% discount is ensured in the bar, please remind staff if the staff does not recognise you. If there is line in the bar please act normally as you would on a regular day/night out.
- All staff in the bar are aware of the project and they will help you with any questions you may have, such as the type of drink you observed …etc.
- If there is anything remarkable, any incident, aggression, etc make a note after ensuring your and the group’s safety.
- If someone comes and asks about what you are doing; you need to explain what you are doing. If the person does not want to be his/her data included, you have to cross his/her data off.
- When leaving the venue, please ensure about your own safety first and if you do not have a secure transportation to your place, please let the group leader know.

**Instructions and definitions of the observation sheet:**
Observer: The observers ID, please write your name.

Date: The date of the observation session.

Bar: Observation will be undertaken in one venue. There are three different settings within the venue, namely the outside sitting area, beer garden, and pub. Please indicate the setting in which the observation is done. Please check your roster if you are uncertain.

Participant: The person who is subject to your observation. Please observe the amount of people you can accurately observe and record data for. Priority is the accuracy of the data. Please select a number of people based on your ability.

Total spent time: This is the full length of the observation. The total time spent starts from the minute you spotted the person and finishes when the person leaves. If your shift finishes and the person is still there, please conclude the observation and make the note of it. All shifts finish at 12:00 am the latest.

Start time: The time you spotted the person, when the observation starts

Finish time: The time the observation finishes.

Gender: Identification of gender will be done by the physical look such as outfit, makeup, accessories. This matter can be sensitive to some people, please complete this at the end of your observation to be prepared if the person comes and asks what you are doing.

Female: Subjects look like a female.

Male: Subjects look like a male.

Transgender: Subjects look like a person who might be transgender or a crossdresser. If you are not sure please leave this question blank.

Number of people- Group individual: Please record if the observed person is on her/his own, in a group of two, three or more. If the group size changes during the observation please write in both the minimum and the maximum group size observed. For example, if the group size started at 2 and grew to as many as six please record as 2/6.

Straw: Please indicate if the particular drink is being drunk with straw.

Smoking: If the person smokes anytime during the session, please indicate.

Buying in rounds: In a group of people, every person in the group buys drinks for all other people in the group.
**Drink**: The beverage consumed by the observed person; which can be beer, wine, water, coffee, spirits..etc.

**Start time**: When the particular drink was bought.

**Brand/Type**: The type of drink; beer, spirit, wine, cocktail and the brand is such as, Corona, Little Creatures, XXXX.

**Glass size**: There are mainly 5 different sizes used to serve drinks in the bar and the rest is usually served in bottles. If you are unsure about the details of any drink that your subject drinks, please ask either bar staff or serving staff. Other glasses are red, white and sparkling wine glasses used to serve wine.

From left hand side in order;

- Spirit glass: The short, fat one; used to serve spirits and some cocktails.
- Second glass: Pot; used to serve beer.
- Third glass: Tall glass; used to serve non-alcoholic drinks and when the person asks the spirit to be served in a tall glass. When you spot the glass please ensure the content.
- Fourth glass: Schooner; used to serve beer.
- Fifth glass: Pine; used to serve beer.
Food: Is there any accompanying food during the alcohol consumption? It can be, chips, nibbles. Please follow the link to see the menu:

(The link directing to the venue’s menu webpage is provided here but for anonymity reasons, we cannot share it publicly.)

Finish time: The time the observed person finishes the drink. If the person gets another drink, please proceed to next drink section in the observation sheet.

Comments: If you think anything important happened in particular during the observation that may deepen the data, please make a note. If it makes your job easier, you can sketch the table and people around it. Please feel free the use the comments section as much as possible.
# Appendix 7: Articles included in Chapter 6 systematic literature review

<table>
<thead>
<tr>
<th>Lead Author</th>
<th>Intervention name (if provided)</th>
<th>Articles included</th>
</tr>
</thead>
</table>
**Clapp, J. D., Shillington, A. M., Lange, J. E., & Voas, R. B. (2003).** Correlation between modes of drinking and... |
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Mode of Reporting</th>
<th>Reference</th>
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</thead>
<tbody>
<tr>
<td>Glassman, L., Shari Kessel, S., &amp; DeJong, W.</td>
<td>2001</td>
<td>Just the Facts</td>
<td>Evaluation of a social norms marketing campaign to reduce high-risk drinking at the</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
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</table>


brief alcohol intervention programme to general practitioners. *The British Journal of General Practice, 49*(446), 695-698.


<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Title</th>
<th>Journal</th>
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<tr>
<td>Moore, Graham F, Williams, Annie, Moore, Laurence, &amp; Murphy, Simon.</td>
<td>2013</td>
<td>An exploratory cluster randomised trial of a university halls of residence based social norms marketing campaign to reduce alcohol consumption among 1st year students.</td>
<td>Substance Abuse Treatment, Prevention, and Policy, 8 (1), 15-15.</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Source</td>
<td>Reference</td>
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</table>
Appendix 8: Ethical approval

GRiffith University human research ethics committee

04-Sep-2014

Dear Miss Buyucek,

I write further to the additional information provided in relation to the conditional approval granted to your application for ethical clearance for your project "NR: On premise alcohol consumption: Exploring use of a stakeholder perspective" (GU Ref No: MKT/11/14/HREC).

This is to confirm receipt of the remaining required information, assurances or amendments to this protocol. Consequently, I reconfirm my earlier advice that you are authorised to immediately commence this research on this basis. The standard conditions of approval attached to our previous correspondence about this protocol continue to apply.

Regards

Dr Kristie Westerlaken

Policy Officer Office for Research Bray Centre, Nathan Campus Griffith University

ph: +61 (0)7 373 58043

fax: +61 (07) 373 57994

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Reference List


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