Friends or Foes: Group Influence Effects on Moderate Drinking Behaviors

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Abstract

Drunkenness and the addictive consumption of alcohol remains a key social and public health concern. Advancing beyond traditional individualized prevention approaches, this research explores the role of social influences in determining individual and group influence in moderate-drinking decision-making and participatory actions. A social influence model of intentional moderate drinking actions is conceptualized and validated. Results show group norm as the single social influence predictor of intentions and desire to drink moderately, as opposed to well-known social influence factors (e.g., subjective norm, social identity and drinking contextual effects). Significantly, the peer-group is identified as a key influencer supporting moderate drinking practices, and i-intentions to drink moderately predict group-related we-intentions, which suggests moderate drinking is a shared goal. These findings advance alcohol prevention research drawing attention to the power of group dynamics to support positive changes in youth drinking behaviors.

Keywords: social marketing; we-intentions; group norms; social influences; alcohol

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Problem drinking, smoking and gambling have long been of social and health concern and moral opprobrium in Western cultures. Over the past few decades however, momentum from the public health movement has focused debate about the consumption of these products on the need for increased government intervention, de-marketing and regulatory strategies to protect vulnerable groups in society from potential problems that could occur from their overconsumption. Categorized as ‘sin’ products in need of intervention, the health and societal valuation placed on alcohol, smoking tobacco and gambling differ substantially. Arguably, tobacco presently holds the distinction of being the most dangerous ‘merchant-of-death’. Alcohol and gambling are being increasingly scrutinized because of the social, physical and psychological harms associated with their overconsumption and concomitant negative consequences on individual and community safety and well-being. Alcohol drinking in particular is identified as a problem that has reached global ‘epidemic’ status, with health advocates pointing to rising rates of youth alcohol-related problems and prevalence of binge drinking behavior (FARE, 2014). Contextualized primarily as a youth issue, binge drinking denotes a harmful pattern of drinking, which is defined in Australia’s health and medical research guidelines as ‘drinking too much on a single occasion of drinking’ (NH&MRC, 2009).

The research presented in this paper focuses on alcohol consumption and positions it as a paradoxical product, because it is perceived to benefit as well as harm those who consume it (Stimson, 2006). For example, reports on alcohol have noted the reduced prevalence of coronary heart disease in countries where red wine is consumed, with other reports, such as the recent notice from the Cancer Council of Australia, stating there is no safe threshold of alcohol consumption for avoiding cancer (Winstanley, Pratt, Chapman, Griffin, Croager, Olver, Sinclair, & Slevin, 2011). Studies of moderate drinking, in comparison to studies of

heavy and risky drinking, identify alternative consumer practices that describe intentional social actions such as monitoring the number drinks consumed on an occasion, drinking soda from a champagne glass, or drinking slowly. These drinking practices are contextualized with positive socialization and ability to participate in a safer and healthier drinking culture (Fry, Drennan, Previte, White, & Tjondronegoro, 2014).

Most alcohol research on drinking behavior examines outcomes of decisions for drinking made by the individual and is largely dominated by understanding excessive drinking (e.g., Manning, Smith, & Mazerolle, 2013; McCreanor, Lyons, Griffin, Goodwin, Moewaka Barnes, & Hutton, 2013; Szmigin, Bengry-Howell, Griffin, Hackley, & Mistral, 2011). Undoubtedly, drunkenness and the addictive influence of alcohol remain key social and public health concerns. At the same time however, the boundaries of acceptable and unacceptable drunkenness have become culturally contestable. This is because excessive alcohol consumption is considered harmful and anti-social, while at the same time *a big night out* involving excessive drinking is associated with pleasure, an escape from work pressures, as well being a key symbol in celebratory occasions to identify togetherness (Pettigrew, Ryan, & Ogilvie, 2000). This insight into alcohol consumption talks to the broader attitudinal change and cultural acceptability of *determined drunkenness* and the desired state of intoxication for drinkers (Measham and Brain, 2005). Arguably, this notion of intoxication identifies a state of alcohol consumption that has little to do with gaining any utility from its purchase, such as taste, and aligns more closely with O'Guinn and Faber's (1989) early explanation of compulsive consumption. Compulsive alcohol consumption is thus defined by an individual's desire to obtain and experience feelings that lead to repetitively engaging in a behavior that ultimately causes harm to the individual and/or to others. It is this insight into alcohol consumption that concerns health practitioners, social marketing scholars, and policy regulators in society.

Further contributing to these concerns is the contested perspective of drunkenness, which at least in public may attract disapproval and legal sanction. Nevertheless, drinking to intoxication is still an expected aspect of youth leisure (Keane, 2009). Discussion in this paper focuses on the role of marketing in compulsive consumption by examining a sample of young binge drinkers' desires to drink moderately. Legally, young people in Australia can purchase alcoholic beverages at 18 years of age. By exploring youth-moderate drinking intentions, this paper challenges the current status quo of government social marketing campaigns that implement simple notions of individual control and personal responsibility to put forward the benefits of reduced alcohol consumption. Arguing for a deeper general understanding of the alcohol problem, this research draws upon an understanding of intoxication as a behavior inclusive of both harm and pleasure to highlight the complexity of youth alcohol consumption.

The research focus is also informed by Menzel, Baker, Gentry and Rittenburg's (2005) vulnerability research that conceptualizes vulnerability as a dynamic, transitive state arising from interactions of personal states, personal characteristics, and external conditions consumers on occasion will experience. Thus, a young drinker may experience events such as being out of control, because the motivation to drink is driven by psycho-social factors (e.g., self-confidence, peer-pressure in social situations) or, experiencing a sense of being overwhelmed by conflicting marketing messages (e.g., anti-drinking vs alcohol marketing). Yet, this same young consumer may also participate in regular, controlled drinking events. Thus, achieving a balance whereby the social and health benefits of moderate drinking can be communicated to young consumers, while the harm that alcohol causes are also acknowledged, is a challenge that to date is yet to be successfully addressed (Ellison and Martinic, 2007).

Social influence theory (Bagozzi and Lee, 2002) is applied to the study of youth alcohol consumption in this research as an alternative to studying binge drinkers' individual intentions towards moderate drinking actions. Taking this approach responds to current critiques of social marketing that note its over-reliance on the study of individual-behavior change approaches (French, Spotswood, Tapp, & Stead, 2012; Szmigin *et al.*, 2011). Also criticized are the lack of engagement with evidence that identifies other environmental cues, such as group influences and drinking social situations, which impact drinking consumption. This study aims to address these limitations in current social marketing scholarship by proposing and testing a social influence model of intentional moderate drinking actions. Thus the remaining discussion in this paper turns to an outline of the theoretical background, the research model and hypotheses; the next section explains the research methods and study results. The final section of the paper brings together a general discussion of the research findings, theoretical and practical implications, and directions for future research.

Theoretical background and hypothesis development

To examine binge drinkers' moderate drinking desires, individual and group intentions to engage in moderate drinking practices are explored. Currently social marketing and health consumer researchers rely heavily on social-psychology models to operationalize individual-level variables explaining behavioral intentions as a function of personal evaluations of binge drinking intentions and behaviors (e.g., Ajzen's original Theory of Planned Behavior and its various theoretical extensions such as the Model of Goal Directed Behavior). These classic approaches use individual-based models (i-intention models) to explain for example: the alignment between individual positive attitudes towards binge drinking and planned intentions to engage in risky drinking (Cooke, Sniehotta, & Schuz, 2007), the habit of binge

drinking in undergraduate students (Norman, 2011), and youth responses to drinking messages (Wechsler, Nelson, Lee, Seibring, Lewis, & Kelling, 2003). Primarily, these and other studies of youth binge drinking assume that a number of individual-level variables act separately to influence youth decision-making about the risks associated with binge drinking.

Social Influence Theory (Bagozzi and Lee, 2002) is used to extend this body of research and explore additional social determinants of drinking practices that may also influence alcohol drinkers' behaviors. Specifically, the objective in this study is to develop and empirically validate a research model (see Fig. 1) of *intentional moderate drinking actions* in alcohol drinkers. The model extends beyond individual-based intentions (i-intentions) to incorporate the influence of *collective intentions* (we-intentions) on alcohol drinking. Integration of group influences within the model is informed by research about youth alcohol consumption and group socialization (e.g., Szmigin *et al.*, 2011), as well as marketplace observations of alcohol marketing that regularly capitalizing on group socialization in advertising appeals and promotional events to positively position alcohol products and brands to youth segments. Bagozzi and colleagues' social influence measures are incorporated to develop a collective intentions model of moderate drinking (Bagozzi and Lee, 2002). While Bagozzi and colleagues in the past have theorized this process through we-intentions specifically, this paper also includes i-intention variables to enable exploration of both intra-individual process and group effects that may influence an individual's purposeful, moderate drinking actions.

Figure 1 here.

Social Influence Variables: A Framework for Understanding Group Drinking

The constructs of interest to this study align with examining the impact of social influences on moderate drinking decision-making and participatory actions. While social influence theory has been widely used to explain group and collective behavior in settings such as online social networks and virtual communities (Cheung and Lee, 2010; Dholakia, Bagozzi, & Pearo, 2004), it has not been applied to explore alcohol-related contexts. In this study of binge drinkers' moderate drinking intentions, we demonstrate the value of the model to guide exploration of the social influence process based on the original three distinct processes as proposed by Kelman (1958): the role of compliance (social norms), internalization (group norms) and identification (social identity). An additional construct, *Drinking Contextual Effects* (DCEs), is included in the theorization to explore consumer responses to environment cues and drinking situations that may influence their moderate drinking intentions.

Firstly, drawing on Kelman's theoretical devices of compliance, internalization and identification informs the proposition that there may be differing degrees of influence in drinking contexts for young drinkers. Compliance may occur when a drinker responds to the social influence of a drinking-peer, and seeks approval from significant others in their friendship group during a night out. In this regard, subjective norm reflects the influence of important others. A number of studies have noted weak support for the role of subjective norm in the prediction of binge drinking behavioral intentions (Johnston and Kim, 2003). Subjective norm is included in this study of moderate drinking because, as Fishbein and Ajzen (1975) contend, the importance of social norm as a predictor of intention will vary as a function of the specific population and behavior under consideration. Thus, because it remains to be seen how responsive a binge drinker is towards other drinkers' moderate drinking influences it is proposed that:

H1. Stronger subjective norms lead to stronger desires to engage in moderate drinking practices.

The second mode of social influence, internalization, is characterised by group norms. This aspect of social influence represents the shared agreement between individuals and occurs when an individual accepts social influence because of the similarity of shared goals and values between themselves and other members of the group (Bagozzi and Dholakia, 2002; Shen, Cheung, Lee, & Chen, 2009). Young people participate in social gatherings where drinking has become a behavior that is constantly negotiated as part of group membership (Bennett, 1999). Thus, if a binge drinker recognizes that s/he shares similar moderate drinking intentions with other drinkers, it is expected her/his moderate drinking practices will increase.

H2. Stronger group norms lead to stronger desires to engage in moderate drinking practices.

The third mode of social influence, identification, relates to an individual's self-awareness of their membership in a group, and entails recognition of the emotional and evaluative significance of a person's attachment to group membership (Dholakia *et al.*, 2004; Tajfel, 1978). *Evaluative Social Identity* (SIE) is explored in this study as it relates to an individual's evaluation of self-worth based on a sense of belonging to a drinking group. Alongside SIE, *Affective Social Identity* (SIA) captures an individual's sense of emotional involvement and attachment to their drinking group. Each of these social identity components are expected to influence a drinker's desire to engage in moderate drinking practices.

H3a, b. Stronger social identity (evaluative and affective) lead to stronger desires to engage in moderate drinking practices.

The final mode of social influence, *Drinking Contextual Effects* (DCE), refers to the positive and negative mood associations a drinker has with alcohol and the social contexts in which drinking occasions occur, like being at a party. These elements may influence an individual's group socialization and alcohol consumption. This construct draws insight from research conducted by health psychologists on alcohol abuse and craving (e.g., Sitharthan, Job, Kavanagh, Sitharthan, & Hough, 2003) and involves the social influence of a person's mood, such as feeling relaxed in a social situation while drinking, or consuming alcohol to build a sense of confidence. Additionally, DCE includes leisure contexts and situational factors, such as being at a party with friends, or being offered a free drink, or participating in a *shout* situation with friends, which will potentially influence a young person's ability to engage in moderate drinking practices. In Australian nomenclature, being in a *shout* describes the egalitarian drinking practice where each drinker in turn shouts (buys) a round of drinks for others in the drinking party. The cultural practice of shouting further demonstrates how drinking with a (particularly large) group of friends influences alcohol consumption during a drinking session.

H4. *Drinking Contextual Effects* [DCEs] strongly influence desire to engage in moderate drinking practices.

Drinking Decision-Making and Participation

An emerging theme within alcohol literature draws attention to young people's capability to resist the prevailing culture of intoxication and their practices of sensible drinking, suggesting young people desire to drink moderately (Fry, 2011; Szmigin *et al.*, 2011). Desire refers to a state of mind in which an agent has a personal motivation to perform an action, or realize a goal (Perugini and Bagozzi, 2004). This study focuses on action desire to explore binge drinkers' intentions towards moderate drinking by using both personal and social actions in

an alcohol drinking context. Taking this focus on consumer action examines *what a consumer does* and, in particular, what an alcohol consumer does intentionally in relation to conative actions involving moderate drinking practices. As Bagozzi (2000) notes, when contrasting personal actions from social/group actions — personal actions draw focus on the individual for the purpose of identifying *what is done* as a one-person act, as well as explaining *why it is done* — such as acting to attain a personal goal. Reasons why young people may choose to drink moderately can range from their fear of negative consequences (i.e. being out of control in social situations) through to parental disapproval and sporting constraints, and mere indifference (Fry, *et al.*, 2014), therefore:

H5. Stronger desire to drink moderately leads to higher levels of i-intentions to drink moderately.

In contrasting personal and social actions, Bagozzi (2000) further explains that social actions underscore the social nature of the latter because *what is done* is accomplished by a group and the *why* is motivated by group members and common goal attainment. This interpersonal perspective is defined as *we*-intentions, which are considered as the intention to participate in a group and act as an agent of the focal group (e.g., a friendship group). This collective intention is incorporate in theorizing alcohol behaviors because numerous studies have noted the direct impact peers have on individual drinking (e.g., Ali and Dwyer, 2010; Lau-Barraco and Linden, 2014). Furthermore, findings from these studies suggest that among peers, young drinkers channel, select, and adjust behaviors and goals important to both their individual and group identity. Therefore:

H6. Stronger desire to drink moderately leads to higher levels of *we*-intentions to drink moderately.

Three additional categories of moderate drinking social actions are conceptualized in the social influence model of intentional moderate drinking actions, based on evidence from health and social marketing literatures (Fry, *et al.*, 2014; Sitharthan *et al.*, 2003). These are: (1) *Cognitive Actions* refer to keeping track of the number of drinks consumed each hour, or planning to limit the number of drinks during a night out with friends, (2) *Performing Actions* relate to practices which assist in reducing the quantity of alcohol consumed during a drinking session, such as drinking water or non-alcoholic drinks, or choosing to drink low-alcohol substitutes on a night out with friends, and (3) *Avoidance Actions* include refusing unwanted alcohol and turning down offers of drinks from friends. Because these alternative, but discrete, behaviors fit under the umbrella of responsible drinking approaches, they are included in the model to elucidate the complex phenomenon of moderate drinking, which is not yet fully understood in social marketing (Anderson, Grunwalk, Bekman, Brown, & Grant, 2011). As argued, individual-level reasoning and social group influences are expected to increase moderate drinking actions, therefore:

H7a, b, c. Higher levels of **i-moderate drinking intentions** leads to higher levels of moderate drinking practices

H8a, b, c. Higher levels of **we-moderate drinking intentions** leads to higher levels of moderate drinking practices

Method

Procedure and Sample

Data were collected from 224 student volunteers enrolled in business degree courses at east coast Australian universities towards the end of the academic year. As planned, these dates match with end of study celebrations and increased participation in social events.

Eliminating non-usable surveys and non-drinkers from the dataset resulted in 188 questionnaires for analysis. The sample represented drinkers within the 18 to 25 year age group (48% between 18-20 years and 52% between 21-25 years), were largely female (67%), and Australian with 22% reflecting international citizens. The prevalence of binge drinking has been noted to be higher among university students than among their non-student peers (Gill, 2002; Norman, 2011), who are consequently considered a vulnerable population for policy makers in Western countries (Kuntsche, Rehm, & Gmel, 2004) and a sample population of interest for studies of compulsive behavior.

Assessing both quantity and frequency of alcohol consumption illustrates the sample represents a young adult binge drinking cohort. Approximately two-thirds of the sample (61%, $n=116$) were categorized as binge drinkers, that is, consuming four or more standard units in a single drinking session (NH&MRC, 2009). To ensure respondents could all consistently report on standard drinks, a visual measurement tool developed for use in the Australian government's alcohol guidelines was included in the survey to illustrate the standard measure of commonly consumed types of alcohol—beer, wine, spirits (COA, 2003). The remaining one-third of the sample reported drinking within responsible limits (i.e., between one and three drinks in a session; 39%, $n=74$). Binge drinkers report engaging in greater frequency of binge behavior, that is, consuming excessive levels of alcohol in a drinking session more than two times a week (42%; $n=48$) or between two to four times a month (32%; $n=37$). The remaining binge drinkers indicated that they consume excessive levels of alcohol at least once a month (26%; $n=30$). Interestingly, among respondents indicating they consume alcohol within responsible limits, approximately one-fifth consume alcohol frequently; either two to three times a week, or four or more times a week. A majority of the respondents indicate they are planning to drink moderately in the next 4 weeks (57%; $n=107$). However, 25% ($n=47$) have no intention to drink moderately over the same period

and the remaining 18% (34) appeared ambivalent about planning to drink moderately, because at the time of completing the survey, they neither agreed/nor disagreed with doing the behavior.

Measures

The constructs of interest to this study align with examining the impact of social influences on moderate drinking decision-making and participatory actions. Established measures for all constructs were adapted from previous literature to reflect moderate drinking behavior. Table 1 provides a complete list of items. Subjective norm was adapted from Bagozzi and Dholakia (2002). Group norm, i-intention and we-intention were derived from Dholakia *et al.*, (2004). Evaluative social identity (SIE) and affective social identity (SIA) were measured using two items each offered by Cheung and Lee (2010), Shen *et al.*, (2009), and Tsai and Bagozzi (2014). The five items measuring drinking contextual effects emanated from Sitharthan and colleagues controlled drinking self-efficacy study assessing moderate drinking confidence (Sitharthan *et al.*, 2003). A single item assessing desire to drink moderately was adapted from Perugini and Bagozzi (2004) and Shen *et al.* (2009). Participatory actions for maintaining moderate drinking behavior were separated into three dimensions: cognitive actions (e.g., counting drinks), performing actions (e.g., alternating between alcoholic and non-alcoholic drinks), and avoidance actions (e.g., refusing an alcoholic drink). Items for these sub-constructs were adapted from Sitharthan *et al.* (2003) and interviews with young adults. The definition of moderate drinking used in the survey adheres to the Australian government's guidelines (COA, 2011), which specify the alcohol limits needed to lower the risk of harm from alcohol-related disease over a lifetime. For men, this was defined as up to 6 standard drinks on any one day, and 4 standard drinks for women.

Table 1 here.

Measurement Validation

The results of a CFA indicated that the measurement model (see Fig. 2) provided a good fit to the data ($\chi^2 = 348.30$, $df = 222$, $\chi^2/df = 1.57$, $p < .01$, CFI = 0.95, RMSEA = 0.05, IFI = 0.95, SRMR = 0.05). As reported in Table 1, factor loadings support convergent validity of the measurement model (Anderson and Gerbing, 1988). The composite reliability (CR) and average variance extracted (AVE) (Fornell and Larcker, 1981) indices demonstrate the internal validity of the measures. Measures are internally valid if CRs are greater than .7 and AVEs are greater than .5. Results indicate slightly lower indices for subjective norm (CR 0.59; AVE 0.33), cognitive actions (AVE 0.42), and performing actions (AVE 0.48). Subjective norm is retained as it concerns a person's perception of whether important reference groups support the nominated behavior (Perugini and Bagozzi, 2004). Additionally, in the context of moderate drinking, Fry *et al.* (2014) find perceived social pressure (subjective norm) strongly influences young people's drinking behavior, especially that of young people seeking acceptance and approval of significant others to maintain moderate drinking behavior. Cognitive and performing actions were retained for their ability to capture insight into practices of moderate drinking behavior. Mean and standard deviations are presented in Table 1.

Calculating the shared variance between two constructs and verifying that it is lower than the average variances extracted for each individual construct are the most common means to assess discriminant validity in the measurement model (Fornell and Larcker, 1981). Inspection of the inter-factor correlation matrix (see Table 2) reveals very low correlations between all constructs, extending further support for construct discriminant validity for the measurement model.

Table 2 here.

Hypothesis Testing

The proposed conceptual model (see Figure 1) was tested using structural equation modelling (SEM). The results of the SEM revealed an acceptable fit ($\chi^2=459.35$, $df=251$, $\chi^2/df = 1.83$, $p<.01$), CFI = 0.92, RMSEA = 0.06, IFI = 0.92, SRMR = 0.082), based on the guidelines suggested by Hair, Black, Babin, & Anderson (2010). The standardized path estimates for the hypothesized structural model are summarised in Table 3.

Table 3 here.

Figure 2 presents the full structural model with coefficient paths of the social influence model of intentional moderate drinking actions. Results demonstrate the predictor variable of group norm has a significant, positive effect on desire to drink moderately ($\beta=.31$, $p<.01$) supporting H2. Likewise, desire to drink moderately is positively related to i-intention ($\beta=.16$, $p<.01$), supporting H5. Furthermore, results indicate we-intention to drink moderately has a significant, positive effect on cognitive actions ($\beta=.29$, $p=.05$), performing actions ($\beta=.298$, $p<.05$), and avoidance actions ($\beta=.27$, $p<.05$), supporting H8a, 8b and 8c.

However, a number of hypothesized relationships were found insignificant. Subjective norm ($\beta=.03$, *ns*), evaluative social identity ($\beta=.22$, *ns*), affective social identity ($\beta=.25$, *ns*) and drinking contextual effects ($\beta=.033$, *ns*) have no significant effects on desire to drink moderately, thus rejecting H1, 3, and 4. Results show that desire has no significant effect on we-intention to drink moderately ($\beta= -.06$, *ns*), thus rejecting H6. Additionally, i-intention to drink moderately does not influence moderate drinking practices, inclusive of cognitive ($\beta=.10$, *ns*), performing ($\beta=.14$, *ns*), and avoidance ($\beta=.18$, *ns*) actions, thus rejecting H7a,b,c.

Finally, the SEM analysis revealed additional significant relationships between constructs. Group norm predicts i-intention ($\beta=.71$, $p<.001$) and we-intention to drink moderately ($\beta=.57$,

$p < .001$). Additionally, i-intention to drink moderately predicts we-intention to drink moderately ($\beta = .26$, $p < .001$). The percentage of variance explained by the model (R^2) on i-intentions to drink moderately and we-intentions to drink moderately were 60% and 59% respectively; illustrating the significant contribution of these variables to explaining relationships in the model.

Figure 2 here.

Other Findings

As commonly experienced in survey research, more women than men answered the survey questions. To explore group differences between males and females, path invariance across two different groups was tested. Assessing the equality of structural covariances and factor variances demonstrates the differences in Chi square are non-significant between the constrained ($\chi^2/df = 86.48/43$) and unconstrained ($\chi^2/df = 75.55/36$) models for the structural models ($\Delta\chi^2 = 26.51$, $df = 20$; $p = 0.15$) — indicating the structural model is equivalent across two groups. A further assessment of path invariance comparing z-score differences was undertaken to identify whether the paths across the two groups are significantly different. Results show differences exist between males and females for the path from group norms to we-intentions (z-value = -2.04, $P < .05$). Therefore, at the *structural level*, gender differences are non-significant. However, these differences are significant at the *path level* with one path identified as significantly different across male and female groups. This indicates some interesting insights into the group influence on young people's drinking, which will be discussed further below.

Discussion

Research has contributed widely to understanding the nature of compulsive consumption and how individual lifestyle behaviors contribute to social, health and economic problems. For instance, extensive research explains young peoples' excessive drinking and risky behaviors (e.g., McCreanor *et al.*, 2013; Measham and Brain, 2005; Szmigin *et al.*, 2011). Other scholarship progresses understanding of external marketing cues that influence addiction (e.g., Martin *et al.*, 2013). Marketing scholarship also sheds light on alcohol being a hedonic product influencing group consumption in social situations like partying, which act as a rite of passage for some young drinkers and as a platform from which collective intoxication shapes a young person's sense of social acceptance and in-group affirmation (Mason, Tanner, Piacentini, Freeman, Anastasia, Batat, Boland, Canbulut, Drenten, Hamby, Rangan, & Yang, 2013). This combined research evidence indicates young drinkers are a challenging segment for social marketing strategists and researchers to address because their alcohol consumption behaviors are complex and paradoxical.

The findings from this study contribute to the established compulsive consumption literature by presenting a more holistic understanding of binge drinkers' alcohol consumption with the purpose of providing additional insight and evidence about binge drinkers' moderate drinking intentions and actions. The study shows young adults' have positive intentions towards moderate drinking and engage with controlled drinking practices. This evidence challenges the status quo that binge drinking is what young people normally do (Measham, 2002). Future social marketing needs to be responsive to this moderate drinking segment and implement interventions to support and encourage alternative drinking practices, rather than pervasively reinforcing the negative tropes of young consumers as out of control, risky drinkers.

Furthermore, this study contributes evidence about group influences in alcohol consumption by suggesting that group and situational influences help explain binge drinkers'

moderate drinking intentions. Importantly, the research identifies binge drinkers' desires to drink moderately and illustrates the role of group norms and actions as significant facilitators in behavior change towards moderate drinking. Interestingly, women's friendship groups are identified as a stronger predictor for moderate drinking intentions than male friendship groups. Thus, while young adults benefit from participating with others in their friendship groups to manage moderate drinking behavior, young women in particular are likely to benefit from increased social trust and social ties of their friendship groups to harness collective action towards moderate drinking. This finding supports research showing that: women have stronger, more confident social ties than men (Umberson, Crosnoe, & Reczek, 2010); that social ties influence a variety of health behaviors because they influence health habits (Mechanic and Tanner, 2007); and health outcomes will potentially spread via social networks (Christakis and Fowler, 2007).

Specifically, the evidence from this study demonstrates the positive power of group influence and supports the call from some scholars in social marketing to apply more than individualized models of behavior change to manage social change (e.g., Spotswood and Tapp, 2013; Szmigin *et al.*, 2011). By focusing on standardized segmentation approaches that continue to target binge drinkers with a singular focus on individual, personal responsibility as the platform for encouraging safer drinking practices, social marketers and health communicators are missing opportunities to implement alternative strategies that support prosocial behavior change (Previte, Russell-Bennett, & Parkinson, 2014). From both social learning theory and marketing practice, social marketers know that consumer behavior and attitudes develop in response to encouragement and reinforcement from the people who surround the consumer. The evidence in this study similarly indicates this understanding of individuals being influenced by group norms and actions. Yet social marketers typically treat *the group* pejoratively as a competitor to good behavior when developing strategies involving

youth, alcohol consumption. Arguably, this is because alcohol research conducted by social marketers to date is predominately framed around excessive drinking and problem behaviors. The evidence from this initial study, both theoretical and empirical, is a useful starting point on which more research focused on moderate drinking group influences and actions can be based.

Theoretical Implications

From a conceptual perspective, this research extends and challenges theorizing of behavior change modelling beyond an individualistic approach towards a group-influence approach. The motivation of this study was to examine the role of social influences in determining individual and group influence in moderate-drinking decision-making and participatory actions. This study is one of the first attempting to explore the relationship between individual actions and collective actions on moderate drinking intentions and practices. The majority of literature in the area of alcohol prevention aimed at reducing unhealthy consumption of alcohol devotes considerable interest in measuring personal intentions to change behavior. This study gains insight into alcohol socialization and applies the concept of socialization to understanding moderate drinking behavior. This is one of the very first studies that measures intentional social action (incorporating both personal intention and social intention) to explore moderate drinking consumption.

The research model is built on social influence theory and behavior change theory and hypothesizes moderate drinking decision-making and related participatory actions are explained by four social influence processes (subjective norm, group norm, social identity and drinking contextual effects). The study finds that traditional social influences of subjective norm, social identity (evaluative and affective) and drinking contextual effects do not significantly influence desire to drink moderately. Rather, group norm is found to be both the single key social influence predictor of desire to drink moderately and to significantly

explain i- and we-intentions to drink moderately. These results extend existing theories of behavior change and contribute a new theoretical lens to apply in alcohol prevention research.

While the social and collective nature of alcohol consumption is apparent, relatively little theory-driven empirical research is available in the social marketing literature to address the complex and paradoxical nature of alcohol consumption. In this study of social influences, it is interesting to note drinking contextual effects (DCE) have a limited influence on desire or intentions to drink moderately. While in the literature these environmental influences, such as being at a party or being offered free drinks exemplify the factors that impact binge drinking behaviors, when used to explore moderate drinking actions they are not influential. Further studies of moderate drinking situational factors are needed to explore the interactional effects and cues that influence moderate drinking. An interesting avenue for further research would be to explore how moderate drinking and drink-driving behaviors interact. For example, past research evidence suggests that designated driver promotions as a means of deterring drunk driving have been successful (Ditter, Elder, Shults, Sleet, Compton, & Nicholas, 2005). However, an interesting development from this accepted good behavior is that, while it promotes a non-drinker role in a young consumer's social group, at the same time, it appears to give license to others in the group to drink in excess as they are relieved from the responsibility of driving a vehicle. Further research is needed to explore the competing social influence of the designated driver role and the effect it has on moderate and excessive drinking practices in friendship groups.

Practical Implications

This study importantly addresses alcohol misuse and facilitating behavior change towards moderate drinking. As pointed out elsewhere, policy makers, researchers and social marketers have largely taken a paternalistic view towards preventing alcohol risk in youth segments (McCreanor *et al.*, 2013; Measham and Brain, 2005). Yet, as Mason *et al.*, (2013) argue, the

future of alcohol prevention strategy requires a shift away from an individual-based single risk approach, towards understanding how moderate drinking occurs within group settings and lifestyle contexts. This study contributes empirically towards this shift suggesting the future potential for alcohol prevention strategies to focus on group dynamics, rather than the individual's responsibility to change behavior. Recognizing moderate drinking behavior (cognitive, performance and avoidance actions), while enacted by individuals, is predominantly influenced by both group norms and we-intentions can lead to a more nuanced understanding of the socialization associated with moderate drinking practices.

In particular, the key finding from this study is group norms influence i-intentions and we-intentions, and that we-intentions predict moderate drinking behaviors suggesting alcohol prevention strategies need to direct attention towards leveraging actions and socialization around moderate drinking. These insights are timely because Westerns population statistics indicate a rise in the number of alcohol consumers drinking moderately (AIHW, 2014). Marketers and social marketers, in particular, need a better understanding of moderate drinking behaviors to inform the design and development of marketing interventions and social change campaigns that leverage positive behavior change supportive of the wider diffusion of moderate drinking in the youth population. Based on the evidence in this study, social marketer's and health research should direct attention towards developing moderate drinking competencies and facilitating the spread of these competencies within group networks. Taking this approach to alcohol prevention is transformative as it seeks to shape the broader culture surrounding alcohol consumption.

Limitations and Recommendations for Future Studies

Several limitations of the present study offer opportunities for future research. A number of constructs in this study used single-item measures. While using such measures has been debated by scholars, several academics argue that using multi-item scales can decrease rather

than increase overall reliability (Bergkvist and Rossiter, 2007; Drolet and Morrison, 2001; LaBarbera and Mazursky, 1983). These scholars propose that, if the object under consideration can be conceptualized as concrete and singular, the attribute to describe that object can also be conceptualized as singular rather than requiring multiple representation. Additionally, these scholars suggest theoretical tests and empirical findings would remain unchanged if relevant, solid, single-item measures were substituted for constructs that commonly use multiple-item measures. Several academic studies have successfully employed single-item measures (e.g., Aaker and Keller, 1990; Bergkvist and Rossiter, 2007; Bolton and Drew, 1991). Future research could examine the utility of single-item versus multiple-item measures within behavior change contexts to validate these findings.

While this study limited its sample to university students who are absolutely relevant to the study inquiry, further research into a broader population would be an interesting extension of evidence. Additionally, this study draws insight regarding i-intentions and we-intention constructs from the area of internet community group research (e.g., Bagozzi and Dholakia, 2002; Cheung *et al.*, 2010; Dholakia *et al.*, 2004; Tsai and Bagozzi, 2014). Future research might also examine the mediating relationships between the constructs defined, as well as explore additional constructs such as positive and negative emotions and their influence on decision-making.

The results show i-intentions and we-intentions to drink moderately account for the majority of variance within the SEM model. Interestingly, i-intentions do not impact moderate drinking practices but rather influence group-related moderate drinking practices. This finding raises questions about the relationship between i-intentions and we-intentions to drink moderately, an area for further investigation. Future research might examine whether, for example, relationships between network ties influence moderate drinking behavior. Specific attention could be directed towards the relationship between group norms

influencing processes of internalizing moderate drinking intentions and assimilation of individual intentions within the group context.

Finally, the study findings are limited by the cross-sectional nature of the research and that the focal-dependent variable studied is behavioral intentions rather than reporting actual moderate drinking behavior. Further research could involve administering the survey questions at two distinct time periods to track changes in intentions over time. If a longitudinal approach was taken, actual behaviors could also be measured. In addition, capturing participant responses across multiple time periods would enable further examination of behavioral intentions measurement utility. This approach could also open up opportunities to explore if respondents' answers reveal any social desirability bias, or even optimism bias in relation to binge drinkers' desires to drink moderately over a defined period of time. Future research could also consider exploring additional constructs such as temporal factors (e.g., convenience, occasion, psychological time) and personal confidence as possible influencers on intentions to drink moderately.

This study has demonstrated the importance of group influences on moderate drinking behavior. The theorizing and findings presented give further support to marketing and health research scholars who have argued for social marketing management to move beyond the prevailing focus on micro-individual management approaches, towards designing interventions and marketing communications supportive of young people to think and talk about moderate drinking practices that they can perform with their friends. This study is the first to attempt to link social influences with moderate drinking decision-making and participatory actions, with specific attention directed towards exploring the relationship between i-intentions and we-intentions to drink moderately. The findings from this study shows a research pathway for other marketing and health scholars to explore and apply this approach to future studies of compulsive consumption and prosocial behavior change.

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Table 1
Measurement Model Results

Constructs	Factor Loading
<i>Subjective norm CR = .59; AVE = .34; mean = 3.69; SD = 1.31</i>	
People who are important in my life think I should drink moderately the next time I have a night out (<i>Seven-point: I should not/ I should scale</i>)	.56
The people in my life whose opinions I value would disapprove of my drinking moderately the next time I have a night out. (<i>Seven-point: Disapprove/ Approve scale</i>)	.51
Most people who are important to me drink moderately when they have a night out. (<i>Seven-point: Completely false/ Completely true scale</i>)	.64
<i>Group norm CR = .81; AVE = .68; mean = 4.51; SD = 1.61</i>	
How likely is it that you and your friends will support each other to drink moderately in the next 4 weeks? (<i>Seven-point: Not at all/ Very much scale</i>)	.78
How likely is it that you will support your friends to drink moderately during the next 4 weeks? (<i>Seven-point: Extremely likely/ Extremely unlikely scale</i>)	.86
<i>Evaluative social identity CR = .81; AVE = .69; mean = 4.28; SD = 1.60</i>	
I am an important member of my social group with whom I regularly drink (<i>Seven-point: Does not describe me at all/ Describes me very well scale</i>)	.80
I am an valuable member of my social group with whom I regularly drink (<i>Seven-point: Does not describe me at all/ Describes me very well scale</i>)	.92
<i>Affective social identity CR = .89; AVE = .80; mean = 4.52; SD = 1.65</i>	
How attached are you to the group of friends with whom you drink regularly? (<i>Seven-point: Not at all attached/ Extremely attached scale</i>)	.86
How strong are your feelings of belongingness to the social group with which you regularly drink? (<i>Seven-point: Not at all strong/ Extremely strong scale</i>)	.93
<i>Drinking contextual effects CR = .90; AVE = .65; mean = 4.91; SD = 1.49</i>	
Thinking about the next 4 weeks how confident are you that you can maintain a moderate	

drinking behavior if you are: *(Seven point: Not at all confident/ Very confident scale)*

- At a party with friends .82
- Not relaxed in a social situation .70
- In a shout situation with friends .84
- Want to feel more confident .82
- Someone offers to buy you a free drink .85

Desire

My desire to drink moderately when socializing over the next 4 weeks can be described as

(Five-point: No desire / Strong desire scale)

i-intention CR = .88; AVE = .72; mean = 4.21; SD = 1.64

I intend to keep track of my alcohol intake to drink moderately in the next 4 weeks .89

(Seven-point: Not at all/ Very much scale)

I am planning to drink moderately during the next 4 weeks *(Seven-point: Strongly disagree/ Strongly agree scale.)* .72

I will expend effort on keeping track of my alcohol intake to drink moderately in the next 4 weeks *(Seven point: Extremely unlikely/ Extremely likely scale)* .92

we-intention

How likely is it that you will support your friends to drink moderately during the next 4 weeks? *(Seven point: Extremely unlikely/ Extremely likely scale)*

Practice intentions: Cognitive, Performing, Avoidance Actions

When your social group go out and drink to what extent do they do any of the following:

(Seven point: Never/Always scale)

Cognitive actions CR = .58; AVE = .42; mean = 3.89; SD = 1.62

CA1: Count the number of drinks you have .50

CA2: Limit the number of drinks you have in an evening .77

Performing actions CR = .65; AVE = .48; mean = 3.02; SD = 1.50

PA2: Quench your thirst by having a non-alcoholic drink before having alcohol .73

PA3: Only drink low alcoholic drinks .65

Avoidance actions CR = .82; AVE = .69; mean = 3.94; SD = 1.71

AA1: Refuse an alcoholic drink you are offered because you really don't want it	.84
AA2: Turn down an offer of a drink	.82

Notes: CR = composite reliability, AVE = average variance extracted.

Table 2
Correlations

Variable	1	2	3	4	5	6	7	8	9	10
1 Subjective norm	1									
2 Group norm	-.22**	1								
3 Evaluative social identity	.04	-.11	1							
4 Affective social identity	.04	-.10	.78**	1						
5 Drinking contextual effects	-.05	.36**	-.26**	-.16*	1					
6 Desire	-.06	.29**	-.05	-.09	.14	1				
7 we-intention	-.23**	.68**	-.18*	-.14*	.28**	.23**	1			
8 i-intention	-.19**	.66**	-.18**	-.19**	.32**	.40**	.68**	1		
9 Cognitive actions	-.12	.28**	-.03	-.03	.23**	.07	.28**	.19**	1	
10 Performing actions	-.14*	.33**	-.109	-.14	.14	.04	.32**	.26**	.44**	1
11 Avoidance actions	-.23**	.37**	-.19**	-.13	.35**	.12	.36**	.31**	.44**	.36**

*p < .05, **p < .01

Table 3
Hypothesised Structural Model

Hypothesis	Path	B (Standardised Regression weight)	Z-score	P
1	subjective norm → desire	.03	0.33	.74
2	group norm → desire	.31	3.23	.00
3a	social identity(evaluative) → desire	.22	0.85	.40
3b	social identity(affective) → desire	-.25	-1.00	.32
4	drinking contextual effects → desire	.03	0.38	.70
5	desire → i-intention	.16	2.75	.00
6	desire → we-intention	-.06	-1.10	.27
7a	i-intention → cognitive actions	.10	0.78	.44
7b	i-intention → performing actions	.14	1.22	.22
7c	i-intention → avoidance actions	.18	1.69	.09
8a	we-intention → cognitive actions	.29	1.91	.05
8b	we-intention → performing actions	.30	2.32	.02
8c	we-intention → avoidance actions	.27	2.52	.01
	group norm → i-intention	.71	8.87	.00
	group norm → we-intention	.57	5.43	.00
	i-intention → we-intention	.26	2.66	.01
	Variance explained (%) in Desire	11.80		
	Variance explained (%) in i-intention	60.40		
	Variance explained (%) in we-intention	59.90		
	Variance explained (%) in avoidance actions	17.10		
	Variance explained (%) in performance actions	16.90		
	Variance explained (%) in cognitive actions	13.10		

Figure 1**A Social Influence Model of Intentional Moderate Drinking Actions**

Figure 2**Full Structural Model with coefficient paths**

Note: * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$