

**IDENTIFYING THE CHARACTERISTICS OF MODERATE DRINKERS:
AN EXPLORATORY STUDY**

by

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Abstract

A review of the literature on drinking behaviour of university students reveals that most research focuses on binge drinking behaviour: a serious concern that has the attention of the World Health Organization. Binge drinking is of particular concern for university students as they are a high risk subset in an already high risk age group. This thesis explores the characteristics of university students who choose to drink moderately in this otherwise high risk environment. The purpose of this exploratory study is to better understand who the moderate drinkers are, what are their consumption habits and what are their perceptions of alcohol and the alcohol consumption of their peers?

This study is informed by two theoretically frameworks: positive psychology as the overarching lens focusing on those students who drink responsibly and social norm theory which holds that students are influenced by what they perceive others to be doing and thereby alter their own behaviour and thoughts to meet this perception.

The participants are composed of three hundred and forty-eight undergraduate students registered in their first year of study living in on-campus university residences. Data is collected using an on-line survey including both forced choice and open-ended response questions.

According to participant's self-reported data, over 40% of male participants and 50% of female participants self-identify as moderate drinkers. These moderate drinkers view their relationship with alcohol as either positive or neutral yet highly over-estimate the frequency and consumption levels of alcohol of their peers and do not perceive that any of their peers abstain from alcohol. The findings further reveal that moderate drinkers see themselves as unique from their peer group. Self-identified moderate drinkers rarely feel pressure to drink more, feel alcohol has little or no importance to them in social settings and do not consider drinking habits

as a factor in selecting their choice of friends. Self-identified moderate drinkers were consistent with prior research findings in over-estimating the consumption of their peers but do not appear to allow this misperception to influence their own drinking habits.

Preface

This research was approved by the UBC Okanagan Behavioural Research Ethics Board on March 31, 2016. Ethics certificate #H14-02330.

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Chapter 1. Introduction and Review of the Literature

1.1 Introduction

Moving away from home to attend university is an exciting time in the lives of young people as they transition from adolescence to young adulthood. There are ample benefits to students who live on campus (Pascarella & Terenzini, 2005) and students are afforded opportunities to establish social connections and become enmeshed in social and scholarly communities. Alongside these opportunities for positive development are influences and opportunities to engage in behaviours that present risks to young people's health and well-being. Binge drinking, or the excessive consumption of alcohol at one time, is a potential risk for young people (Arbour-Nicitopoulos, Kway, Lowe, Taman, & Faulkner, 2010). Among university-age students in many countries, excessive drinking is a serious public health problem concern. It has drawn the attention of both the U.S. Surgeon General and the World Health Organization, who have declared reducing binge drinking a priority health goal (Foster, Young, Bryan, Steers, Yeung & Prokhorov, 2014; Wechsler, Lee, Kuo, Seibring, Nelson, & Lee, 2002; World Health Organization, 2005)

Research on university students' binge drinking was spearheaded in the early 1990's by the Harvard School of Public Health using the College Alcohol Survey (CAS) which provided a comprehensive summary of the drinking behaviours on American university campuses (Wechsler & Nelson, 2008). Four CAS surveys were conducted between 1990 and 2004 showing that approximately 2 in 5 (44%) university students binge drink (Wechsler et al., 2002). Despite concerns and awareness of the effects of binge drinking the rates remain consistent today (CORE Institute, 2012; Substance Abuse and Mental Health Services Administration, 2011).

Recent studies in the United Kingdom suggest that as many as 50% of university students binge drink (Murphy, Moore, Williams & Moore, 2012). University students are more likely than non-university students to engage in binge drinking making them a higher risk subset within an already high risk population (Hallett, Howat, Macock, McManus, Kypri, & Dhaliwal, 2012; Kypri, Paschall, Langley, Baxter, Cashell-Smith, & Bourdeau, 2009; O'Malley and Johnston, 2002; Tran, Nehl, Sales & Berg, 2014). Particularly alarming are the findings of Wechsler and colleagues (2008) who identified that for students who do drink, 48% indicate that they do so with the intended purpose of getting drunk.

1.2 Risks of Binge Drinking

Binge drinking is the leading cause of morbidity and mortality for university-age students (Hingson, Zha, & Weitzman, 2009). More specifically, it is estimated that of the 8 million university students in the U.S., more than 1,400 die annually from alcohol related injuries; 2 million drive under the influence of alcohol, 3 million ride with a drunk driver, half a million are unintentionally injured while under the influence of alcohol, over 600,000 are assaulted by another student under the influence of alcohol, and more than 70,000 are sexually assaulted by someone under the influence of alcohol (Hingson, Heeren, Winter, & Wechsler, 2005). In addition, frequent binge drinkers are at higher risk for driving while drunk and are 14 times more likely to drive while intoxicated than non-heavy drinkers (Zhao, Wu, Houston, & Creager, 2010). Of the 1,700 alcohol-related deaths of university students in 2006, 79% were believed to be a result of drinking and driving (Fairlie, Quinlan, DeJong Lawson, & Witt, 2010). In addition to drinking and driving, health related consequences of binge drinking include unplanned sexual relations and unsafe sex (Alberta Health Services, 2005). Taken together, these findings reflect

ample health risks associated with excessive alcohol consumption during the university-age years.

1.3 Binge Drinking in the University Environment

In addition to the health repercussions of binge drinking, there are also negative implications for learning and achievement. It is estimated that alcohol can be implicated in 41% of all academic related problems and 28% of all dropouts (Pascarella, Goodman, Seifert, Tagliapietra-Nicoli, Park, & Whitt, 2007). Furthermore, students with low GPA's are more likely to be heavy drinkers (Pascarella et al., 2007).

Curbing binge drinking on campus has proven challenging as binge drinking has become engrained in the university experience. In the minds of many young university students, drinking is associated with many attractive social elements of campus life including parties, interactions with friends, and residence living (Foster et al., 2014; Wechsler, Dowdall, Davenport, & Castillo, 1995). For example, a study of student perspectives on university life found that the majority of male focus group participants and half of female focus group participants report that drinking and partying was a normal part of university life and that irresponsible use of alcohol was to be expected (Colby, Colby, & Raymond, 2009).

A formidable challenge for universities is to try and change this risky behaviour when students do not see binge drinking itself as problematic (Wicki, Kutsche, & Gmel, 2010). Some predictors of binge drinking behaviour are inherent to students before they arrive on campus, such as prior drinking behaviour and family attitudes towards alcohol. Peer influences and living arrangements, however, are factors that universities may be able to influence or shape once students have arrived on campus (Boyd, McCabe, & d'Arcy, 2004). As a result, there is

opportunity for universities to have an effect on this serious public health concern.

Unfortunately, efforts to change students' binge drinking have not been uniformly successful in effecting changes in drinking perceptions nor behaviours (Foster et al., 2014; Murphy et al., 2012).

1.4 Purpose

The bulk of research on university drinking has focused on excessive alcohol consumers and there is limited research investigating the behaviour of moderate drinkers and how they maintain their behaviour in an environment where binge drinking is common. Barry and Goodson (2012, p. 1172) highlight that “to date, there is a dearth of both evidence based and theoretically derived research identifying specific empirical, responsible drinking characteristics”. The purpose of this study is to explore the habits and perceptions of students who are moderate drinkers, rather than binge drinkers. More specifically, the study will explore the characteristics of moderate drinkers, their relationship with alcohol, and their perceptions of their peer's relationship with alcohol.

1.5 Research Questions

Three research questions regarding the moderate drinking behaviour of university students guide this exploratory study. Among first year students living in a residential context:

1. Who are the moderate drinkers and how prevalent are they?
2. What are their drinking habits?
3. What are their perceptions of drinkers and consumption habits?

1.6 Theoretical Framework

Supporting the study of the characteristics of moderate drinkers in a university residential context, this study is informed by two theoretical frameworks: 1) Social Norm Theory; and 2) Positive Psychology.

1.6.1 Social Norm Theory

Social Norm Theory has been a mainstay in the study of university student alcohol use since it was first introduced in the mid 1980's by Perkins and Berkowitz (1986). Social Norm Theory holds that norms (beliefs and perceptions of what is normal) influence a person's behaviour and thoughts (Moreira, Smith, & Foxcroft, 2009). According to Social Norm Theory, people are influenced by what they perceive others are doing and alter their thoughts and behaviours to match that perception. Regarding alcohol consumption, perceived norms can make excessive alcohol consumption appear normative and acceptable (Borsari & Carey, 2001), causing an individual to increase his or her drinking habits to meet this inaccurately perceived norm (Moreira et al., 2009). Social Norm Theory supports the current study and the investigation of university student drinking behaviour. Researchers have shown that students consistently overestimate the consumption of alcohol by their peers – both in frequency and quantity (Bauerle, 2008; Martens, Page, Mowry, Dmann, Taylor, & Cimini, 2006; Turner, Perkins, Moreira, et al., 2009). This inaccurate perception of drinking behaviour can negatively influence students' alcohol-related behaviours.

A factor that is consistently found to have a direct impact on alcohol behaviour is a student's perception of his or her peers (Arbour-Nicitopoulous et al., 2010; Wechsler et al., 1995). A significant predictor of a student's personal alcohol use is the perception of the norm

for alcohol use on campus (Perkins, Haing, & Rice, 2005). A student's perception of the amount of alcohol his/her peers consume is more influential than the actual amount these peers consume (Perkins et al., 2005). Perkins and Wechsler (1996) found the perception of normative consumption to be the variable of greatest influence in drinking behaviour. This is problematic for campuses as excessive alcohol consumption has become the perceived drinking norm of university students (Gliksman, Adlaf, Demers, & Newton-Taylor, 2003).

Evidence of misperception of the consumption behaviour of peers was further provided in a 2003-2004 survey of 5,280 Canadian university students (Perkins, 2007). The results from this study confirmed that the perceived drinking norms for university students were "grossly misperceived and that the misperceptions produce a highly detrimental 'reign of error' in the lives of students" (Perkins, 2007, p. 2,645). In alignment with Social Norm Theory, this gross misperception of alcohol related behaviour negatively influences the drinking behaviour of students.

At the heart of Social Norm Theory are two different types of norms: 1) *Descriptive Norms*; and 2) *Injunctive Norms* (Cox & Bates, 2011). When applied to drinking behaviour, the descriptive norms are the student's perception of frequency and quantity of alcohol consumed, whereas the injunctive norms are the student's perception of others approval of this behaviour (Borsari & Carey, 2001). The two work in concert to establish what the accepted social norm is for a given behaviour in the eyes of the individual. With regards to binge drinking behaviour, greater misperception occurs with injunctive norms (Berkowitz, 2004) indicating that students misperceive other students' approval of binge drinking behaviour more than they misperceive the actual amount other students are drinking.

Social Norm Theory has been used to guide campus interventions in numerous instances through information campaigns aimed at challenging the accuracy of peer norms around drinking (Arbour-Nicitopoulos et al, 2010; DeJong, 2010; Martens et al., 2006). It is argued that if students are provided accurate peer norm information about alcohol use, they will adjust their drinking behaviour accordingly. Berkowitz's (2004) research further informs this discussion and advises that what impacts students most is their perception of their immediate peer group, not the broader campus environment.

To summarize, research guided by Social Norm Theory supports the investigation of university students' beliefs and behaviours around alcohol consumption and that university students' drinking is most strongly influenced by their perception of their immediate peers.

1.6.2 Positive Psychology

Positive psychology is a relatively new movement within the field of psychology having been introduced in 2000 by Martin Seligman and Mihaly Csikszentihalyi. These founders observed that the field of psychology began with three missions:

1. To cure mental illness;
2. To make the lives of all people more productive and fulfilling;
3. To identify and nurture high talent.

However, after World War II, the field of psychology focused on the first mission with the second two missions falling out of favour. Seligman and Csikszentihalyi acknowledged the benefit of the focus on curing mental illness but stated "treatment is not just fixing what is broken; it is nurturing what is best" (Seligman & Csikszentihalyi, 2000, p. 7). Seligman and Csikszentihalyi (2000, p. 5) further stated:

Psychologists know very little about how normal people flourish under more benign conditions ... It concentrates on repairing damage within a disease model of human functioning. This almost exclusive attention to pathology neglects the fulfilled individual and the thriving community.

Positive psychology has been criticized by some as Polyanna-like, with critics expressing that if this movement in psychology is positive, then all other psychology must be negative (Seligman & Pawelski, 2003). The response to this criticism is that positive psychology is an addition or supplement to the work that negative psychology has successfully conducted (Seligman & Pawelski, 2003). Positive psychology acknowledges the negative but aspires to study all dimensions of development (Gable & Haidt, 2005). In regards to the present study, rather than focusing on the negative binge drinking behaviour, the focus will be on those who do not binge drink, and instead demonstrate a more positive relationship with alcohol.

Existing research on alcohol behaviour has strongly focused on bingeing behaviour (Alberta Health Services, 2009; Robinson, Jones, Christiansen, & Field, 2014; Menegatos, Lederman, & Floyd, 2016). It is this negative behaviour – the bingeing behaviour - that is the focus. In spite of the considerable body of research exploring the behaviour, habits, and perceptions of binge drinkers on university campuses, little change in behaviour around excessive alcohol consumption has resulted (Foster et al., 2014; Murphy et al., 2012). Using positive psychology as a theoretical framework, there is opportunity to approach drinking behaviour from an alternative perspective. Rather than focus on the negative behaviour of those that binge, positive psychology provides the lens to focus on the positive behaviour – those students who drink moderately. This overarching framework positions the research questions of the study and may permit us to better understand the individuals who effectively manage their

consumption of alcohol. This is contrary to the approach most alcohol research takes. This study proposes to take a positive psychological lens and further our understanding of the characteristics, behaviours, and beliefs of moderate drinkers. Improved understanding of students who drink moderately may provide insight into how excessive drinking may be curbed.

1.7 Summary

In summary, binge drinking is a multi-faceted challenge and has long been associated with university students. A review of the literature follows next and reveals an association between excessive drinking and a number of demographic traits, as well as, links to social and environmental factors. A review of the extant psychological and educational literature reveals that the bulk of empirical work done thus far reveals a strong focus on individuals who binge drink and efforts to reduce this excessive consumption. In contrast, limited research could be found identifying the habits or beliefs of moderate drinkers and as universities seek to create optimal learning conditions and keep students safe, research of the nature proposed here is warranted.

1.8 Review of the literature

The purpose of this literature review is to provide information on research already conducted on the drinking behaviour of university students. The research is divided into three sections. The first section explores demographic factors related to alcohol consumption. The second section explores environmental factors impacting university students, particularly with in the context of on-campus living. The third section explores what is known about students' perceptions of their peers.

1.8.1 Demographic Factors

Curious demographic profiles emerge describing young people and their patterns of alcohol use. As previously stated, university students are a higher risk subset within an already high risk population by age for binge drinking (Hallett et al., 2012; Kypri et al., 2009; O'Malley et al., 2002; Tran et al., 2014). Researchers have found that high levels of binge drinking occur between 18 and 25 years of age with 21 being the peak age (Mooney, Knox, & Schacht, 2009). This age corresponds with the public legal drinking age in the USA, yet other studies show that being 21 or older alone is not a predictor of binge drinking (Wechsler et al., 1995). In a study in the United Kingdom, researchers Robinson, Jones, Christianson and Field (2014) posit that in the United States, the 21 year old drinking age can make consuming alcohol an attractive taboo, whereas in the United Kingdom the younger drinking age of 18 years can make consuming alcohol a rite of passage. The legal drinking age in Canada is 18 or 19 years of age depending upon the province, yet the alcohol risk related health factors are similar for university students (Flett, Goldstein, Wall, Hewitt, Wekerle, & Azzi, 2008).

Research on the relationship between year of study and drinking has provided inconsistent results. LaBrie et al. (2010) and Wickie et al. (2010) both found first year students to be at an increased risk for binge drinking. Researchers Bewick Mulhern, Barkham, Trusler, Hill and Stiles (2008) found that student alcohol consumption gradually declined after first year through to graduation. In contrast, Pascarella, Goodman, Seifert, Tagliapietr-Nicoli, Park and Whitt (2007) report there is inconclusive evidence as to who binge drinks more when drinking behaviour is analyzed by year of study.

1.8.2 Gender

In addition to one's year of study being related to drinking behaviour, it appears that gender too characterizes alcohol consumption in university students. Male binge drinking is defined by the consumption of 5 or more drinks in a single sitting and female binge drinking is defined by the consumption of 4 or more drinks in a single sitting (Wechsler & Nelson, 2008). Even if a male and female were of the same body weight, physiological differences in how the body metabolizes alcohol affect the level of impairment (Wechsler et al., 2008).

Young male students in their first year of study are commonly acknowledged as the most prominent group for engaging in high-risk alcohol behaviour (Foster, Young, Bryan, Steers, Yeung, & Prokhorov, 2014; Kuo, Adlaf, Lee, Gilksman, Demers, & Wechsler, 2002).

Historically, males have been found to exhibit more dangerous behaviours associated with alcohol use (Perkins, 2002). In an epidemiological study of alcohol use among university students that evaluated the output from four different national American surveys (i.e., The Harvard School of Public Health College Alcohol Study, the Core Institute, Monitoring for the Future, and the National College Health Risk Behavior survey) it was reported that males were found to binge drink substantially more than females with 50% of males having binged once in the past month and only 34% of females having done the same (O'Malley et al., 2002). From the mid 1980's to the mid-1990s, this gap between males and females has lessened (O'Malley et al., 2002).

Diminishing gender differences were also identified in a report published in 2008 by Sun and Longazel. This study found that although men did binge drink more than women, women were more likely to exhibit negative behaviour as a result of their binge drinking (Sun & Longazel, 2008). Corroborating this finding is the work of McPherson, Casswell, and Pledger

(2004) who found behaviour related to alcohol consumption converged by gender particularly in the young adult age group (McPherson et al., 2004). This study compared alcohol patterns by gender and by age group and concluded that converging alcohol consumption prevalent in young adults could potentially support the theory that changing social roles for women could be a factor (McPherson et al., 2004). Both studies suggest with increasingly comparable drinking profiles, there is a need for additional research on alcohol association with gender.

In reviewing gender roles in binge drinking behaviour, it is noted that risk-taking and aggression are more culturally associated with males in North American society (Perkins, 2002). In evaluating damage to self, others and the institution, Perkins suggested that gender has no impact in damage to oneself or the institution but is significant when evaluating damage to others (2002). That is both males and females are equally likely to cause damage to themselves (e.g., to self-harm) or to institutions (e.g., property damage) but that males are more likely to harm others (e.g., fighting) as a result of drinking (Perkins, 2002).

There are also gender differences with regards to the use of *protective behaviour strategies* with alcohol use. Protective behaviour strategies are harm reduction strategies that students use to reduce the negative consequences of high-risk drinking such as having a non-drinking friend stay with you, or alternating drinks with and without alcohol (Rosenberg et al., 2011). Men have been found to be five times more at risk for alcohol-related problems when engaging in drinking games and women were found to be much less at-risk for problems if they had a roommate with them at a drinking event (Lange et al., 2002).

Impacts of binge drinking behaviour on academic performance have also been shown to have a gender association. A recent study examining student health and implications for academic performance found a negative association between binge drinking and predicting

academic performance and feelings of success for females (Ruthig et al., 2011). The same outcome was not shown to be true however for males. Even though men were drinking more than women in this study, a greater negative impact on academics was found for women.

In summary, the literature indicates that differences in at-risk drinking behaviour between men and women is diminishing. Men have historically been more at-risk, but current research reveals that the gap between men and women is decreasing.

1.8.3 Living Arrangements as an Environmental Factor

In addition to demographic factors there are also environmental factors that impact students' consumption of alcohol. The association between living arrangements and alcohol behaviour has been the focus of many studies on drinking behaviour and university students (Boyd et al., 2004; Larimer, Anderson, Baer, & Marlatt, 2000; Weitzman et al., 2003). Even for students on the same campus, studies have shown that students living in on-campus residences tend to perceive alcohol norms as more permissive than those residing off-campus (Zamboagna, Olthuis, Horton, McCollum, Lee, & Shaw, 2009).

Of the various characteristics that help predict alcohol behaviour, the effect of living arrangements are less well understood (Boyd et al., 2004). Researchers have shown that living arrangements for university students are predictive of binge drinking (Wechsler et al., 1995) and much of the research shows that living on campus is associated with a greater likelihood to binge drink (LaBrie, Hummer, Grant, & Lee, 2010; Wicki, Kutsche, & Gmel, 2010). It is possible that the socialization that living in residence affords underlies this increased consumption (Zamboagna et al., 2009). Interestingly, some research indicates that living on campus actually

helps reduce possible post-alcohol consumption risks (Sun et al., 2008) and suggests that the risk of harm after bingeing is lessened for students who live on campus.

Zamboanga and colleagues (2009) posit that the reason living arrangements affect alcohol consumption is due to students selecting or choosing to live on-campus rather than due to socialization factors. The implication is that students who are more likely to binge drink select living on campus, away from their parents. This, in turn, provides opportunity to binge drink and counters the argument that binge drinking behaviour is a result of living on campus. Other studies suggest that living away from home but in off-campus housing is associated with increased alcohol use (Kuo et al., 2002; Wechsler et al., 1995; Wicki et al., 2010). With more than half the students at Canadian universities living off campus (Kuo et al., 2002) this is an important aspect requiring further investigation.

Understanding how living arrangements influence students' consumption of alcohol is important for university administrators as it is an area over which there is some control. Certainly, how living arrangements are structured is malleable in light of other predictive factors such as prior drinking behaviour and family attitudes to alcohol that are predetermined before a student arrives on campus.

1.8.4 Perceptions of Peers

Peers are the social reference in the university environment who help create behavioural norms (Borsari et al., 2001). There is a strong relationship between a student's alcohol behaviour and the perception of his or her friend's drinking behaviour (Dams-O'Connor, Martin, & Martens, 2007; Martens et al., 2006; Wechsler, Kuo, Lee & Dowdall 2000). Students on university campuses are particularly susceptible to peer influences. This is because in many

instances it is a student's first foray into more independent living and there is a shift from parental influences to peer influences as a student finds his or her social identity and demonstrates his/her freedom from parental control (Hummer, Labine, & Pedersen, 2012). Researchers have shown that some students view their time in university as the opportunity to experiment in risky behaviours before adult responsibilities become the priority after graduation (Colby et al., 2009; Dams-O'Connor et al., 2007; Ruthig, Marrone, Hladkyj, & Robinson-Epp, 2011).

The National Institute on Alcohol Abuse and Alcoholism (2002) suggests drinking patterns are formed in the first six weeks of the academic term. Students are in a new environment and develop their peer network by being socially involved. The exposure to peer drinking can increase heavy consumption of alcohol (Hummer et al., 2012; Kairouz, Glikzman, Demers, & Adlaf, 2002). Students who did not have a history of drinking prior to attending university report that they began to binge drink because of their desire to fit in and their perception that binge drinking was what everyone else was doing (Hummer, LaBrie, & Pederson, 2012; Weitzman, Nelson, & Wechsler, 2003). Moreover, Perkins (2007) tested the association between perceived norms and individual drinking habits. He found that reducing misperceptions around consumption successfully reduced alcohol misuse. He suggested by reducing individual misperceptions, non-binge drinkers could be made to feel more comfortable thereby helping them get more involved in campus and further reduce overall misperceptions of excessive drinking behaviour.

1.8.5 Summary of the Literature

In summary, the review of the literature indicates that binge drinking is associated with a student's year of study and gender, with his or her perception of peers' alcohol consumption, and with on-campus living arrangements. As has been argued in the introduction, although the characteristics and behaviour of students who drink excessively have been extensively studied, much less is known about students who drink in moderation. Might these students' alcohol-related behaviours and perceptions of drinking inform our understanding of how to reduce binge drinking on campus?

Chapter 2. Research Methods

2.1 Overview

This chapter describes the research design of the study including the setting, participants and procedures for data collection. Recall that the purpose of this exploratory study was to better understand the beliefs of university students who drink moderately: Who they are?; What are their consumption habits?; and What are their perceptions of alcohol and alcohol consumption by their peers?

2.2 Setting

Data was collected as part of a Master's of Arts degree at the University of British Columbia Okanagan campus, a mid-sized university in western Canada with a campus population of approximately 8,400 students and an on-campus housing population of approximately 1,700. Data was collected in September and October, 2015, early in the term for first-year students when exposure to the freedom of living away from home and development of new peer networks is intensified.

2.3 Participants

The sample was comprised of undergraduate students registered in their first year of study who were living in the on-campus residences of the university. Of the 1,220 possible first-year students eligible for participation, 348 students completed the survey, yielding a response rate of 28.5%. The sample was comprised of 156 males (45%) and 192 females (55%). The mean age was 18.01 ($SD = 0.65$). All but 11.7% entered university directly from high school and of those who took time off before entering their first year, 87.8% took only one year off.

Participants' area of origin was diverse with 6.0% coming from the Okanagan region, 41.6% coming from elsewhere in British Columbia, 31.9% coming from the rest of Canada and 19.9% coming from outside Canada. Sixty-three percent of participants reported being Caucasian, 9.9% Chinese and 7.2% South-Asian.

2.4 Procedure

University research ethics approval was obtained prior to the commencement of data collection (H14-02330). All first year students living in on-campus residences received a flyer in their campus mailbox, outlining the study and procedures regarding how to participate. The flyer included a web-link directing students to an on-line survey created in Fluid Survey hosted on the university's secure website. By inputting the web-link address in their computer browser, students were directed to an on-line consent form providing further details about the study and advising of the risks and benefits to participating. Providing consent allowed students access to the survey. An e-mail was sent to recipients twice during the collection period reminding them of the survey deadline.

2.5 Data Collection

The on-line survey was the data collection tool. A survey format was chosen as it provided opportunity for a broad scope of information to be collected in a standardized format from a diverse group of respondents. The survey included both forced-choice and open-ended response questions. Divided into four sections, the first section asked participants to provide demographic details including age, gender, and ethnicity. The second section asked participants about their habits in relation to alcohol, including both the frequency in which they consumed

alcohol and the volume of alcohol they would consume at any one time. The third section assessed participants' perceptions of the frequency and volume of alcohol consumed by their peers living in residence. The final section focused more broadly on the participant's relationship with alcohol. This section included open-ended prompts exploring word associations with alcohol, descriptors of different drinkers, and the impact of alcohol on social interactions (e.g., selection of friends and perception of pressure to drink). The terms abstainer, light-weight, average and heavy were used as categories within the survey and intentionally undefined to permit the participants interpretation of what constituted heavy drinking.

Chapter 3. Results

3.1 Overview

Recall that the purpose of this exploratory study was to investigate the drinking habits of first-year university students living in residence in an effort to understand:

1. Who are moderate drinkers and how prevalent are they?
2. What are the drinking habits of moderate drinkers?
3. What are the perceptions of moderate drinkers of other drinkers and of consumption habits?

Findings are reported next for each of the above guiding questions.

3.2 Identifying the Moderate Drinker

Though the research reported here illuminates the drinking behaviour and perceptions of moderate drinkers, it merits mentioning that alcohol-related research typically reflects reporting of either abstainers (students who refrain from drinking) and binge drinkers (those who excessively drink). The definition of moderate drinkers falls in between those who drink but do so at a lesser rate than binge drinkers (Quintana, Guastella, McGregor, Kickie, & Kemp, 2013; Tucker & Harris, 2016). In my review of the literature, only very recent studies reference research on moderate drinkers in conjunction with abstainers and binge drinkers (e.g., Lac & Donaldson, 2016).

As defined previously, the consumption of 5 or more drinks on any one occasion for males, and 4 or more drinks on any one occasion for females defined whether or not an individual was a binge drinker (Weschler, Nelson, & Weitzman, 2000). The questions “How often do you have 5 or more drinks on one occasion?” for males and “How often do you have 4

or more drinks on one occasion?” for females were used to identify participants by drinking category. The Canadian definition of binge drinking differs from the U.S. definition in its interpretation of the frequency of binge drinking and the duration or period of time in which drinks were consumed. This may span anywhere from consumption having occurred in the past four weeks by the Ontario Student Drug Use Survey to within the past 12 months by the Canadian Campus Survey by the Centre for Addiction and Mental Health (Alberta Alcohol and Drug Abuse Commission, 2009). By establishing moderate drinkers as participants whose alcohol consumption was monthly or less, this study upheld a conservative definition of what it means to be a moderate drinker.

In this sample, moderate drinkers constituted 42.3% of the male participants and 50.5% of the female participants. Abstainers were 19.8% of the male participants and 28.6% of the female participants. Binge drinkers were 34.6% of the male participants and 19.7% of the female participants (see Table 1).

Table 3.1 Distribution of Drinking Category by Participants

Measure:	Males	Females	Descriptor
How often do you binge drink?	(n=156)	(n=192)	
Do not drink	31	55	Abstainer
Never	9	13	moderate drinker
Less than monthly	30	44	moderate drinker
Monthly	27	40	moderate drinker
Weekly	49	37	binge drinker
Daily or almost daily	5	1	binge drinker
No response	5	2	

3.3 Questionnaire Responses

For the purpose of this research only the questionnaire responses provided by those identified as the moderate drinker in Table 1 are reported.

3.3.1 Questionnaire Section II: Frequency of Alcohol Consumption

When asked how often participants had an alcoholic drink, of the 76 moderate drinking males, 24.2% responded with “having a drink monthly or less often.” Half of the participants reported having a drink two to four times a month and 26% reported having a drink containing alcohol two to three times a week. None of the participants reported drinking four or more times a week.

When the 97 female moderate drinkers were asked the same question, they responded with 26% having a drink containing alcohol monthly or less. More than half of the participants (60%) reported having a drink containing alcohol two to four times a month and only 12% reported consuming a drink containing alcohol two to three times a week. A single responding female reported consuming a drink containing alcohol four or more times a week.

3.3.2 Questionnaire Section III: Participant’s Perceptions of others’ drinking

The third section of the questionnaire probed participants’ perception of the drinking habits of their peers living in residence. Participants were asked how many alcoholic drinks other students in residence consumed (thus quantity) and how often they consumed alcoholic drinks (thus frequency).

3.3.2.1 Perception of male consumption by males

Nearly half (47%) of the male participants perceived other males in residence as having five or six drinks at a social gathering. It is worth recalling that consuming five or more drinks on one occasion is the definition for binge drinking (Weschler & Nelson, 2008). When added to the 23% of males who believe other males in residence drink seven, eight or nine drinks at a

social gathering and the 8% who perceive other males as drinking ten or more drinks, more than three quarters (78%) of moderate drinking males perceive other males living in residence as drinking quantities of alcohol at social gatherings that meet the definition of binge drinking. Only 3% of male participants thought other males drank one or two drinks at a social gathering and a further 19% perceived other males as drinking three or four drinks.

3.3.2.2 Perception of male consumption by females

Forty-one percent of female participants perceived males in residence as consuming five or six drinks at a social gathering, and the same number of female participants perceived males as drinking seven, eight or nine drinks at a social gathering. Upon adding the 8% of females who perceive males in residence as drinking ten or more drinks at a social gathering, the data reveals that nearly nine out of every 10 female participants (89%) perceive their male peers living in residence to binge when drinking at a social gathering. None of the female participants perceived males as having one or two drinks at a social gathering and only 11% thought males drank three or four drinks.

3.3.2.3 Perception of female consumption by males

In contrast, the perception of female students living in residence by their male counterparts was markedly different. The majority of male participants thought their female peers drank four or less drinks at a social gathering. More specifically, 13% of male participants thought females drank only one or two drinks at a social gathering and 44% thought females drank three or four drinks. Twenty-eight percent of males thought females drank seven, eight or nine drinks at a social gathering and only 2% thought other females drank ten or more drinks.

3.3.2.4 Perception of female consumption by females

Interestingly, female participants' perception of other females in residence was different from the perspective that male participants had of their female peers. None of the female participants thought other females drank only one or two drinks at a social gathering. The most common response was three or four drinks at 49% but this was closely followed by 44% perceiving five or six drinks were consumed by other females in residence. Those two categories combined made for the vast majority of female participants (89%) thinking other females in residence drank between three and six drinks with alcohol at a social gathering. Only one in 10 (10%) of the female participants thought other females drank seven, eight or nine drinks at a social gathering.

3.3.2.5 Perception of how often other students drank by males

In addition to their thoughts on how *much* other students in residence drank, participants were also asked how *often* they thought these students drank. None of the male participants thought other students abstained from drinking. A meagre 5% of participants thought other students drank only monthly or less, with a third (34%) of male participants perceiving that other students drank two to four times a month. The majority of male participants (55%) thought other students drank two or three times a week with another 6% thinking other students drank four or more times a week.

3.3.2.6 Perception of how often other student drank by females

Female participants' perceptions of how often other students drank parallel the male participants' perceptions with a majority (54%) believing other students drank two or three times

a week. This was further supplemented by 41% of female participants thinking other students in residence drank two to four times per month. Like their male counterparts, none of the female participants thought other students abstained, only 1% perceived other students as drinking monthly or less and 4% thought other students drank four or more times a week.

3.3.3 Questionnaire Section IV: Perceptions

The fourth and final section of the questionnaire investigated participants' views of alcohol, including its importance. This section combined both open ended and Likert-type rating responses.

3.3.3.1 Participant descriptions of their relationship with alcohol

Participants were asked to identify three words that described their relationship with alcohol (see Table 2 below). Though responses varied, the most commonly used responses reflected positive language such as “fun” and “social.” This use of positive language was consistent for both genders. Descriptors that reflected an amount of alcohol consumed were also common with both genders indicating terms such as “moderate”, “occasional”, “responsible”, “control”, “casual”, “non-dependent”, “manageable” and “safe” to describe their relationship with alcohol. Particularly noteworthy were male participants' use of the word “love” and female participants' use of the words “cautious” and “careful”.

Table 3.2 Descriptors of Relationship with Alcohol by Gender

Descriptor	Overall	Prevalence	Prevalence
	Prevalence (n)	Male Participants (%)	Female Participants (%)
Fun	101	46.5%	53.5%
Social	59	47.5%	52.5%
Party	28	32.1%	67.9%
Good/Great/Positive/Happy	28	64.3%	35.7%
Responsible	16	37.5%	62.5%
Casual	15	66.7%	33.3%
Enjoyable	14	57.1%	28.6%
Moderate	14	42.9%	57.1%
Control/Controlled	13	30.8%	69.2%
Occasional	12	41.7%	58.3%
Relaxing	12	58.3%	41.7%
Friends	11	27.3%	72.7%
Healthy	9	55.6%	44.4%
Safe	9	44.4%	55.6%
Love	9	100.0%	0.0%
Careful/Cautious	5	0.0%	100%

3.3.3.2 Participants’ descriptors of drinking categories

In addition to asking participants to provide descriptors of their relationship with alcohol, participants were also asked to provide the first adjective that came to mind for each of four different drinking terms: abstainer, lightweight, average and heavy. A broad range of adjectives were provided and coded as positive, negative or neutral in tone. The frequency of tone for all responses are reported in Table 3.

For *abstainers*, positive adjectives included such terms as “smart” and “responsible.” Negative descriptors such as “boring,” “lame,” and “scared” were used. Neutral terms include “religious” and “church.” For the *lightweight drinker* category, “lucky” was a common positive adjective. Negative adjectives included “weak,” “small,” and “inexperienced.”

For the *average drinker* category, both genders commonly used positive adjectives such as “good,” “average,” and “fun.” Negative adjectives were less commonly provided. The

reverse was true for the *heavy drinker* category where more negative adjectives such as “problematic,” “alcoholic,” and “irresponsible” were identified. Male participants most commonly provided the word “alcoholic.” Females reported descriptors that included “dangerous,” “crazy,” and “scary”.

After having described the terms *abstainer*, *lightweight*, *average* and *heavy*, participants were then asked to consider which category they would place themselves in light of the descriptors they provided. The majority of male participants (59%) self-identified as *average* drinkers whereas nearly one third (32%) of male participants described themselves as *lightweight*. Almost nine percent considered themselves to be *heavy* drinkers. Female participants were nearly split in half with 49% self-identifying as *lightweight* and 57% as *average*.

Table 3.3 Positive and Negative Descriptor Valence by Drinking Category

Drinking Category	Male Participant Descriptors			Female Participant Descriptors		
	Positive	Negative	Neutral	Positive	Negative	Neutral
Abstainer	51.0%	25.5%	23.5%	64.9%	14.3%	20.8%
Lightweight Drinker	28.3%	56.6%	15.1%	31.2%	49.4%	19.5%
Average Drinker	84.6%	5.8%	9.6%	92.0%	1.3%	6.6%
Heavy Drinker	25.5%	58.8%	15.7%	9.2%	61.9%	28.9%

These findings indicate a possible relationship between how often a participant drank and how he/she self-identified. Male participants who never or rarely drank more than 5 drinks on one occasion tended to see themselves as either *lightweight* (50% and 52% respectively) or

average drinkers (50% and 48% respectively) whereas 80% of male participants who occasionally drank more than 5 drinks on one occasion identified themselves as *average*.

For female participants, 77% of those who never drank more than 4 drinks on one occasion considered themselves *lightweight*, 56% of those who rarely drank more than 4 drinks on one occasion identified themselves as *lightweight*, and 71% of those who occasionally drank 4 or more drink on one occasion identified themselves as *average*.

3.3.3.3 Participants self-identified relationship with alcohol

Participants were also asked to describe their relationship in general with alcohol by identifying it as positive, negative and indifferent. For male participants more than half (57%) described their relationship with alcohol as positive. A further 40% described their relationship with alcohol as indifferent with just 3% describing it as negative. For female participants, 61% described their relationship with alcohol as positive, a further 38% as indifferent and only 1% as negative.

3.3.3.4 Value of alcohol at social gatherings

When asked how important it was to have alcohol at a social gathering nearly half the male participants (48%) replied that alcohol was of little importance with another 18% reporting it was unimportant. More than a quarter of the male participants (28%) felt it was moderately important to have alcohol at the gathering. Only 5% and 2% thought it was important or very important.

Female participants were more varied in their opinion with one-third (33%) believing alcohol at a social gathering to be of little importance and one-third (34%) believing alcohol to

be moderately important. Similar to the male participants, 20% of female participants thought alcohol at a social gathering was unimportant. A slightly larger number of female participants than their male counterparts, 13% and 1% respectfully, thought having alcohol at a social gathering was important or very important.

3.3.3.5 Perception of pressure to drink

Participants were asked if they felt pressure to drink more than they did. The majority of male participants reported that they never (18%) or rarely (49%) were pressured to drink. Nearly one third (32%) of male participants reported that they sometimes were pressured to drink more. None of participants reported this occurring very often and just 2% advised they always experienced pressure to drink more.

Collectively, the majority of female participants also reported never (34%) or rarely (31.8%) feeling pressure to drink. Twenty-seven percent reported they sometimes felt pressure to drink and 7% reported they often felt pressure to drink. None of the participants reported feeling pressure to drink occurring all of the time.

3.3.3.6 Perception of drinking habits and immediate social network

The final questions of the survey explored whether or not participants felt that their drinking habits were similar to their immediate circle of friends and whether or not drinking habits had any influence in their choice of friends. Fifty-eight percent of male participants described their drinking habits as similar to their friends and 42% reported their drinking habits as dissimilar to their immediate circle of friends. Similarly 57% of female participants described

their immediate circle of friends as having similar drinking habits and 43% reported they were dissimilar.

As for influencing their choice of friends, one third of male participants (33%) reported that drinking habits were of no influence, and an additional 40% reported it being of very little influence. Of the remaining male participants, 18% reported drinking habits were somewhat influential, 7% believed the habits were influential and 2% reported drinking habits were very influential. Of the female participants, 29% reported there being no influence at all, 30% reported there being very little influence and 30% reported drinking habits as being somewhat influential in choosing friends. Eleven percent reported drinking habits as influential and none of the female participants reporting drinking habits as very influential in their selection of friends.

Chapter 4. Discussion

4.1 Overview

Recall that this was an exploratory study intended to profile first-year university students living in residence who self-identified as moderate drinkers. As much of the research on the drinking behavior of university students has focused on the excessive consumption of alcohol by students, this research addresses an important gap in the literature and strove to expand our understanding of moderate drinking behaviour.

The findings are now discussed within the context of the three research questions driving this study:

1. Who are moderate drinkers and how prevalent are they?
2. What are their drinking habits?
3. What are their perceptions of drinkers and consumption habits?

4.2 Who are the moderate drinkers are and their prevalence

In alignment with previous research categorizing the frequency and quantity of alcohol consumption, moderate drinkers in this study were first-year students who had not previously binge drank or students who binge drank infrequently – not at all in the past month. Of the entire sample of participants, a large portion fell into the moderate drinking category with over 40% of males self-identifying as moderate drinkers and 50% of females self-identifying as moderate drinkers. This, coupled with an additional 20% of males and 28% of females self-identifying as abstaining from alcohol altogether, reveals that the majority of participants may be seen to be drinking responsibly according to their self-reported data. These findings counter the binge drinking figures highlighted in the literature. Recall that the College Alcohol Survey found

binge drinkers to make up approximately 44% of the university student population in the United States and recent research in the United Kingdom suggested more than 50% of the university student population were binge drinkers (Wechsler & Nelson, 2008; Murphy et al., 2012).

The distribution of moderate drinkers must be situated within the larger context of the drinking categories. Though the bulk of students self-identified as moderate drinkers, a sizeable proportion of students self-identified as binge drinkers with males at one third and females at one fifth. Thus, although the majority of students are able to manage their consumption of alcohol, binge drinkers are still well-represented within the participants identified in this study as described by their self-reported information.

The identification of the prevalence of moderate drinkers is important and contributes to our understanding of the health and well-being of first-year university students. The findings here may offer comfort to parents and university administrators, notably that the bulk of first-year students in fact appear to manage their alcohol consumption responsibly and their consumption falls within a range that does not reflect excessing drinking as per their self-reported data. In this regard, this research stands to challenge stereotypes of first-year students as binge drinkers. Although a subpopulation of students do in fact struggle in their ability to manage their alcohol consumption, the majority of students appear to negotiate this challenge well according to the data they provided. This is an important finding given the gap in the literature on the characteristics of moderate drinkers and the concentrated focus only on those who binge drink.

4.3 The drinking habits of the moderate drinker

Self-reports of the frequency and quantity of alcohol consumed by moderate drinkers' reveals consistent patterns between genders. Both male and female moderate drinkers report regularly consuming alcohol weekly or bi-weekly, however, they manage to maintain moderate consumption volumes. Those who self-report as moderate drinkers, do not binge drink and are able to keep their alcohol intake within moderate consumption levels when they drink alcohol. It is worth noting that there are approximately 10% more females who report moderate drinking than males which coincides with reports of gender differences identifying more male than female binge drinkers.

When further describing their drinking habits, moderate drinkers self-identify as *light-weight* or *average* drinkers. As would seem reasonable, students who drink the least are more inclined to describe themselves as lightweight drinkers, and those who drink more, but still within the moderate range, are more likely to describe themselves as average drinkers. In this regard, the amount students identify they drink and the corresponding drinking category ascribed to them, is in alignment.

How moderate drinkers view their relationship with alcohol provides further insight into their overall drinking profile. Almost all moderate drinkers identify their relationship with alcohol as either positive or neutral. This was further reinforced by the adjectives moderate drinkers employed when describing their relationship with alcohol. Of the 14 most commonly used adjectives, none could be considered negative. The top three descriptors selected by moderate drinkers— “fun”, “social”, and “party” - are notably positive and suggest moderate drinkers do use alcohol socially yet report that they still manage to do so responsibly. The top

three descriptors, all social in nature, are also consistent with the literature highlighting students' perception that drinking is a positive part of college life.

The relationship with alcohol was one area where gender did appear to play a role. It was interesting to note that female participants who drank the least within the moderate drinking cohort, were more likely to consider their relationship with alcohol as indifferent. As their reported consumption increased they were more likely to see their relationship with alcohol as positive. This same pattern of description did not emerge for male participants.

Overall the data suggests that moderate drinkers are moderate both in their frequency of consumption and in the quantity of their consumption. Moderate drinkers also appear to be at ease with the relationship they have with alcohol and alcohol does not appear to be a source of concern or distress for them.

4.4 Moderate drinkers' perceptions of drinkers and consumption habits

Overwhelmingly, moderate drinkers view their peers, first-year students living in university residence, as drinking far more alcohol than the overall data collected suggests. Essentially moderate drinkers believe the majority of all other students living in residence binge drink regularly. This perception differs somewhat by gender. Both males and females perceive males as the most intense binge drinkers. Interestingly, males think females drink less than females think other females drink. Overall however, males are still perceived by both genders as the most inclined to binge drink. This misperception of peers is consistent with the literature that repeatedly emphasized students' over-estimating the drinking behaviour of their fellow students.

To further emphasize this point, overall, moderate drinkers do not think any first-year university students living in residence abstain from alcohol. This is a surprising finding given

one in five males and one in four females report abstaining altogether from consuming alcohol. It is curious that moderate drinkers are entirely unaware of this segment of drinkers within their peer group.

This heavily weighted perception that most of their peers are binge drinkers is remarkable as it indicates that moderate drinkers clearly view themselves as the exception to the rule within the residential context. They perceive that their drinking behaviour is unlike their peers both in how much alcohol they consume and in how often they consume alcohol. This is where the characteristics of moderate drinkers appears to deviate from that of binge drinkers in the literature. According to Social Norm Theory (Moreira et al., 2009), moderate drinkers would be expected to modify their behaviour to meet the normative behaviour of their peers yet findings from this study does not suggest that to be the case.

A further curious perception emerges in how moderate drinkers describe other drinkers. When breaking down other drinkers into the categories of *abstainer*, *light-weight*, *average* and *heavy*, moderate drinkers were inclined to positively describe abstainers and average drinkers yet negatively describe light-weight and binge drinkers. Given how many moderate drinkers self-identify themselves as light-weight drinkers it was curious that negative connotations were associated with this term. This was particularly curious given the same negative connotations were not applied to abstainers or average drinkers. One possible explanation could be that there were different interpretations of the term *light-weight*. Some respondents may have interpreted the term as being those who become intoxicated after drinking a small amount of alcohol rather than those who are light drinkers. It is conceivable that respondents would describe these two scenarios differently. This difference in interpretation of the term light-weight could be a

plausible explanation for the discrepancy in responses. This could be avoided in future research through use of student focus groups to help identify potential language misinterpretation.

Given the data suggests moderate drinkers think of themselves as unique from their peer group, it was interesting to note that they rarely reported feeling pressure to drink. The majority of moderate drinkers never or rarely felt pressure to increase their consumption or to drink more often. This lack of pressure was particularly notable given moderate drinkers suggest they do not take drinking habits into account when selecting their social network. Most moderate drinkers reported that drinking habits had little or no influence over their choice of friends. Furthermore, moderate drinkers described alcohol as having little or no importance to them at social events.

This lack of peer influence is particularly interesting as Social Norm Theory suggests that moderate drinkers would be inclined to increase their alcohol consumption to meet the perceived normative behaviour of others. Those who self-identified as moderate drinkers were consistent with prior research findings in their over-estimation of the consumption of their peers but they did not appear to have their own drinking behaviour influenced by this misperception. This is a curious difference, made even more curious by moderate drinkers reporting the lack of influence of their immediate circle of friends – a factor considered in the literature to be an important factor. The data appears to suggest a level of indifference on behalf of the moderate drinkers in their overall interest in alcohol that is worthy of further exploration.

4.5 Limitations and Future Directions

Despite best intentions, this study was not without limitations. As convenience sampling was used where participants self-selected to participate in the study, the findings may not

represent all first-year students living in residence across university campuses. Thus, the insights derived from this study reflect the views and experiences of the particular population studied.

Further, the survey relied on students' recall of their drinking behavior. Although the completion of the survey was anonymous and confidential, participants' responses could be distorted as participants may have been reluctant to report the full extent of their alcohol consumption – especially for heavy drinkers. It could be argued too that the recall by heavy drinkers may be inaccurate given their inebriated state – can one accurately recall how much one has drunk when especially inebriated?

The reliability of the findings of this study could have been strengthened had a triangulated approach to data collection been undertaken. Could participants' perceptions of themselves and their peers have been corroborated by peers or perhaps by residence monitors? Further to this point, could participants have tracked or logged their consumption over time as a means of more accurately documenting both the frequency and quantity of alcohol consumed?

This study could further be strengthened by studying the evolution of drinking habits over the course of student's first-year in residence. Do drinking habits change over time or are they fixed? That is, would students' drinking see them categorized as moderate drinkers throughout the school year or does students' drinking fluctuate or intensify the longer they live in high consumption environments?

Communication about social norms has typically been presented in the residence environment as passive marketing material such as poster campaigns. Given this research indicates the moderate drinkers appear to be confident in their management of their own drinking behaviour and unaffected by their perceived behaviour of their peers, there may be opportunity

to recruit these self-identified individuals to help influence messages about positive alcohol consumption. This recruitment could occur within the very early weeks of the term or perhaps even ahead of arrival on campus to work in support of a responsible drinking campaign. This personal approach could potentially support a more micro-level campaign that functions on an individual or personal level rather than at the macro-level of poster campaigns directed at the larger community culture. Further utilizing the lens of positive psychology the focus could be on promoting the positive relationship moderate drinkers have with alcohol as a model for new incoming students who may be otherwise negatively influenced by the excessive alcohol behaviours they perceive as widespread. This positive role-modeling that comes directly from a peer could potentially provide opportunity for positive influence.

Despite these limitations and the need for additional research, the findings presented here provide an initial portrait of moderate drinkers and contribute to our understanding of the behaviours and perceptions of first year university students who consume moderately within a climate where excessive consumption is commonly perceived.

This study was exploratory in nature and was designed to paint a picture of moderate drinking first-year students living in residence. Moderate drinkers in this study appear to be aware that they consume less and drink less often than their peers.

4.6 Conclusion

In summary, moderate drinkers tend to see themselves as the outliers within the first-year student residential living environment. They perceive their peers as drinking much more than they do, yet indicate that they rarely feel pressured by those same peers to drink more. They perceive their relationship with alcohol to be either positive or indifferent and, on the whole, see

little importance for the inclusion of alcohol at social events. Furthermore, they advise that their drinking habits are not indicative of their friends drinking habits and that those same drinking habits have little influence over their choice of friends. Overall, the data suggests that moderate drinkers do not view alcohol as important despite their perception that it is broadly consumed by those around them. Further moderate drinkers appear not to notice the sizeable proportion of students around them who report that they abstain from consuming alcohol entirely.

The findings of this study hold implications for drinking reform in the post-secondary setting. If moderate drinkers are able to comfortably stand separate from what they see as the norm within the residential context and not perceive it as negatively affecting their social life it suggests there may be opportunity to leverage this select group of moderate drinkers to support behaviour change in the larger population.

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Appendix A: Questionnaire

Study: “Exploring the Drinking Habits of First-Year University Students”

Directions: Thank you for agreeing to participate in this study. Your answers are important to helping researchers understand the drinking habits of students living in residence. All answers are anonymous. As such, please answer frankly and honestly.

Section I: ABOUT YOU

1. What is your birthdate: [DD/MM/YY] ___/___/___
2. What is your gender?
 Male
 Female
 Other
3. What is your current year of study: 1 2 3 4
4. Did you take any time off before starting university? YES / NO (circle one)
If YES, how long did you take of (in years)? _____
5. Where did you complete high school?
 In the Okanagan Valley Elsewhere in Canada
 Elsewhere in British Columbia Outside of Canada
6. Do you identify yourself as (select all that apply):
 Aboriginal (for this survey we are using the term “Aboriginal” as Statistics Canada does, to include North American Indians (including status, non-status, treaty, non-treaty, Metis and Inuk)
 Caucasian Black
 Chinese Filipino
 Latin American Japanese
 Korean Arab
 South Asian (e.g. East Indian, Pakistani, Sri Lankan etc.)
 Southeast Asian (e.g. Vietnamese, Cambodian, Malaysian, Laotian, etc.)
 West Asian (e.g. Iranian, Afghan, etc.)
 Other _____
7. Are you a non-drinker? YES/NO (circle one)
If YES, proceed to Section III

Section II: ABOUT YOU AND ALCOHOL

1. **How often do you have a drink containing alcohol?**
 - monthly or less
 - 2 to 4 times a month
 - 2 to 3 times a week
 - 4 or more times a week

2. **How many drinks containing alcohol do you have at a typical social gathering?**
 - 2 or less
 - 3 or 4
 - 5 or 6
 - 7, 8 or 9
 - 10 or more

3. **For Males: How often do you have five or more drinks in one occasion?**
 - Never
 - Less than monthly
 - Monthly
 - Weekly
 - Daily or almost daily

4. **For Females: How often do you have four or more drinks in one occasion?**
 - Never
 - Less than monthly
 - Monthly
 - Weekly
 - Daily or almost daily

Section III: PERCEPTIONS OF OTHERS' DRINKING

1. **How much do you think other students in residence drink at a social gathering?**

<u>MALES</u>	<u>FEMALES</u>
<input type="radio"/> 1 or 2 drinks	<input type="radio"/> 1 or 2 drinks
<input type="radio"/> 3 or 4 drinks	<input type="radio"/> 3 or 4 drinks
<input type="radio"/> 5 or 6 drinks	<input type="radio"/> 5 or 6 drinks
<input type="radio"/> 7, 8 or 9 drinks	<input type="radio"/> 7, 8 or 9 drinks
<input type="radio"/> 10 or more drinks	<input type="radio"/> 10 or more drinks

2. **How often do you think other students in residence consume alcohol?**
 - Never
 - monthly or less
 - 2 to 4 times a month
 - 2 to 3 times a week
 - 4 or more times a week

Section IV: YOUR VIEWS

1. What are three words that describe your relationship with alcohol?

a). _____ b). _____ c). _____

2. Write the first adjective (descriptor) that comes to mind when you think of the following drinkers:

a. Abstainer _____
b. Light-Weight _____
c. Average _____
d. Heavy _____

3. Looking at your descriptions above, where do you think you fit in? (circle one)

a. Abstainer
b. Light-weight
c. Average
d. Heavy

4. Generally would you describe your relationship with alcohol as: (circle one)

a. Positive b. Negative c. Indifferent

5. How important is it to have alcohol at a social gathering? (circle one)

unimportant of little importance moderately important important very important
1-----2-----3-----4-----5

6. Do you ever feel pressure to drink more than you do? (circle one)

never rarely sometimes very often always
1-----2-----3-----4-----5

7. Would you consider your drinking habits to be similar to your immediate circle of friends? YES / NO (circle one)

8. Do your drinking habits influence your choice of friends? YES / NO (circle one)

no influence at all very little influence somewhat influential influential very influential
1-----2-----3-----4-----5

THANK YOU FOR PARTICIPATING IN THIS STUDY!