

FACULTY AND ALCOHOL USE COMMUNICATION

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North Dakota State University's regulations and meets the accepted
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DOCTOR OF PHILOSOPHY

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ABSTRACT

Most institutions of higher education have recognized the detrimental impact of high-risk alcohol use on college students' success and it has been strongly recommended that prevention practitioners incorporate faculty members in prevention efforts in order to reduce college student alcohol use. Despite the large body of literature that has established faculty members are influential in college student success, the impact and influence faculty members have on college student alcohol use has not been thoroughly researched.

The purpose of this research was to begin to understand if faculty members impact college student alcohol use. Specifically, exploring what students recall about faculty communication related to alcohol use, and the value students place on faculty expectations and communication related to their alcohol use. The findings were generated through adding five additional questions to an already existing survey instrument that was utilized on a biennial basis to collect alcohol and other drug perception and use data from students at 11 different campuses in a statewide higher education system.

Findings indicated that most students never or rarely recall faculty communicating about alcohol. Men at two-year institutions were more likely to report having heard faculty communicate about alcohol use and were also more likely to report instructors' expectations as an effective way to limit or control their alcohol use. The more drinks students report per week the less effective they report faculty expectations as a way to limit or control their alcohol use; also an increase in the number of drinks per week decreased the likelihood they would change their behavior based on instructors' expectations.

This study provides evidence that engaging faculty members in prevention efforts by relying on them to communicate expectations and low-risk drinking messages to students may

not be as effective as suggested. There is some promise with enlisting the help of faculty with prevention efforts at smaller institutions or within cohort-based academic programs, where the same students and faculty members interact frequently. Focused training with faculty members at these smaller institutions could possibly enhance the positive impact.

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CHAPTER 1. INTRODUCTION

A post-secondary credential in U.S. has shifted from being a privilege for some to a prerequisite for almost all employment in U.S. (U.S. Department of Education, 2015a). By 2020 it is estimated that two-thirds of job openings will require some type of a post-secondary training or education (U.S. Department of Education, 2015b). Despite this increasing demand for post-secondary education, the likelihood of new student attaining a post-secondary credential has never been worse.

Since 1990 the U.S. has dropped from being ranked as first in the world in four-year degree attainment among 25-34 year olds to 12th in 2010 (The White House, n.d.). This downward trend is attributed to those that have started a degree, but never completed it. The most recent statistics indicate that nearly half of all students who start college do not graduate within six years (Kena et al., 2015). To counteract this trend, President Obama set the goal of increasing college graduates by 10 million by 2020 (The White House, n.d.).

To meet this goal, the federal government has applied various reporting requirements related to student success on higher education institutions, while at the same time investing in programs to make post-secondary education more affordable for students (U.S. Department of Education, 2015b). Many states have also developed funding formulas that link state funding allocations to student success outcomes, such as graduation and retention rates (National Conference of State Legislatures, 2015). These expectations have required colleges and universities to enhance or implement strategies and interventions to bolster student success.

With this increased scrutiny, institutions recognize that they need to intervene and support students both academically and socially. One issue that transcends all facets of a student's success in higher education is alcohol use. In fact, high-risk drinking has been

regarded as the most serious health problem faced by U.S. colleges and universities (Dodd, Glassman, Webb, & Miller, 2010; Ham & Hope, 2003). Ham and Hope (2003) indicated that "...students put themselves and others at risk for negative consequences due to their high-risk drinking behavior" (p. 750). College student alcohol use has been associated with reduced academic achievement (Singleton & Wolfson, 2009; Pascarella, et al., 2007), injuries and even fatalities (Hingson, Zha, & Weitzman, 2009).

Just as the consequences of college-student alcohol use are multifaceted, so are the prevention strategies that colleges employ to combat this persistent problem. The increased national attention on high-risk college drinking (U.S. Department of Health and Human Services, 2007*, coupled with the increased pressure to reduce college student attrition, has prompted college and universities to initiate or increase their prevention efforts (Wechsler et al., 2002).

Influencers on College Student Alcohol Use

Understanding the variables contributing to college student drinking is essential to informing the prevention and intervention strategies aimed to reduce this problem (Ham & Hope, 2003). Prevention efforts have led to examining the factors that influence this behavior; these factors can include not only the college environment, but influential individuals in college students' lives, including peers (Borsari & Carey, 2006; Weitzman, Nelson, & Wechsler, 2003), parents (Abar, Abar, & Turrisi, 2009; Cosden, Gauthier, & Hughes, 2013; Wood, Read, Mitchell, & Brand, 2004), and faculty members (Perkins, 2002). Astin (1993) explained that "the student's peer group is the single most potent source of influence on growth and development during the undergraduate years" (p. 398). Additionally, Astin (1993) further described that "every aspect of the student's development – cognitive and affective, psychological and behavioral – is affected in some way by peer group characteristics, and usually by several peer characteristics" (p. 363).

Peer influence on college student alcohol use is no different. Borsari and Carey (2006) found that peers' attitudes and behaviors regarding alcohol are indicators of the student's attitudes and beliefs. The impact peers have on alcohol use is compounded by the increased emphasis new students place on peer relationships and facilitating a new college identity.

Parent and family support are also influential in students' persistence (Braxton, Hirschy, & McClendon, 2004). An outdated assumption is that once children reach late adolescents, parents have minimal influence on their decisions. However, research conducted over the past 15 years has proven the opposite true: parents are quite active in their children's college preparation, planning and also have substantial influence on their children's decisions during teenage years and once students are at college (Abar, Turrisi & Abar, 2011). Additionally, parents play a critical role in influencing alcohol use among college students (Abar, Abar, Turrisi, 2009; Abar & Turrisi, 2008). About 70 percent of college students said their parents' concerns or expectations about alcohol influenced how, and if, they drank alcohol (CASA, 2007). Research has identified that parents simply talking with their college student holds promise as an evidence-based practice to moderate drinking behavior (Turrisi, Wiersma, Hughs, 2000; Wood, Read, Mitchell, & Brand, 2004). While parental communication regarding alcohol is influential on student alcohol use, parental behavior and implied attitudes can also influence college student alcohol use in both positive and negative ways (Cosden, Gauthier, & Hughes, 2013; Vangsness, 2009; Walls, Fairlie, & Wood, 2009).

Similar to peers and parents, research has confirmed that faculty members are influential on college students' success (Pascarella & Terenzini, 2005). Research has linked student-faculty interactions to students' motivation, academic development, and achievement in the college environment (Komarraju, Musulkin, & Bhattacharya, 2010; Pascarella & Terenzini, 2005).

Based on this, institutions of higher education seek to promote frequent contact between students and faculty members in and outside the classroom, and those that do have experienced an increase in student achievement (Pascarella & Terenzini, 2005).

Subsequently, it has been recommended to engage faculty in alcohol use prevention efforts (NIAAA, 2002; Perkins, 2002; U.S. Department of Health and Human Services, 2007). Faculty members have been encouraged to directly participate in prevention efforts through membership on campus coalitions, participation in research activities, or infusing prevention-related messages into their courses or advising sessions. Additionally, faculty members are frequently urged to communicate with students about drinking and to serve as a referral source for students who are struggling with alcohol misuse (Perkins, 2002). This stems from the presumption that faculty members are a critical reference group for students and their normative influence through communication and other behaviors impacts student drinking decisions. However, the limited literature regarding faculty's influence on alcohol use, demonstrates that faculty members consistently misperceive the actual use patterns of students (Beseler Thompson & Vangsness Frisch, 2014; Heyne, 1984; Leavy & Dunlosky, 1989; Ryan & DeJong, 1998). There is a definite lack of understanding regarding faculty members' perceptions, communication, and action related to college student alcohol use.

Research into faculty member perceptions and communication related to college student drinking is scarce (Heyne, 1984; Perkins, 2002). Most alcohol prevention-related research involving faculty members has focused on the effectiveness of curriculum infusion and other educational strategies, without accounting for faculty beliefs about student drinking or how they communicate those beliefs via informal interactions, classroom discussions, or stories and jokes about their own use or the use of others (Beseler Thompson & Vangsness Frisch, 2014; Perkins,

2002). The level of importance students place on faculty communications and expectations regarding alcohol is also unclear. Only one study was found examining the perceptions and communication behaviors of faculty members regarding alcohol use (Beseler Thompson & Vangsness Frisch, 2014). Despite this lack of evidence, college prevention practitioners have been engaging faculty members in alcohol prevention efforts for many years developing ‘how-to’ guides and other prevention materials (Beseler Thompson & Vangsness Frisch, 2014; Heyne, 1984; Ryan & DeJong, 1998).

Alcohol use in college has shown to be detrimental to college students’ success. To better enable colleges to prevent students’ alcohol use the influencers on their use must be thoroughly understood. Research indicates that faculty are influential on college students’ overall success (Pascarella & Terenzini, 2005; Reason, 2009). It has been assumed that just like peers and parents, faculty members are influential on students’ alcohol use. Based on these assumptions it has been strongly recommended that prevention practitioners approach prevention activities from the environmental perspective and incorporate faculty members in prevention efforts in order to reduce college student alcohol use (NIAAA, 2002; U.S. Department of Health and Human Services, 2007). Despite the large body of literature that has established faculty members are influential in college student success, the impact and influence faculty members have on college student alcohol use has not been thoroughly researched (Perkins, 2002; Ryan & DeJong, 1998).

Statement of Problem

The value students place on faculty communication and expectations about alcohol use has not been thoroughly examined. Although, research has established that the direct and indirect influences of peers and parents impact students’ alcohol use (Abar, Abar, & Turrisi, 2009;

Borsari & Carey, 2001; 2003; White, Johnson, & Buyske, 2000), the level of influence that faculty have on college student alcohol use is largely unknown.

Purpose of the Study

Understanding the impact faculty members have on college student alcohol use is essential, particularly considering the strong emphasis that has been placed on faculty involvement for many college student alcohol prevention efforts. The purpose of the current study was to begin to understand if faculty members impact college student alcohol use. Specifically, the current research sought to examine what students recall about faculty communication related to alcohol use, and the value students place on faculty expectations and communication related to their alcohol use to provide a baseline understanding of this complex issue.

Research Questions

In order to achieve the aforementioned purpose the primary research question that guided this study was:

RQ1: Do faculty members have an impact on college student alcohol use?

The primary research question (RQ1) will be understood through examining the specific aspects outlined in the following sub-questions:

RQ1a: What communication related to alcohol use do students recall having with faculty?

RQ1b: Are there differences in students' experiences related to the communication they recall according to demographic characteristics?

RQ1c: What value do students place on faculty communication related to students' alcohol use?

RQ1d: Are there differences in students' assignment of value on faculty communication according to demographic characteristics?

RQ1e: Do demographic characteristics, the value students place on faculty communication, and the communication between faculty and students impact the number of drinks consumed per week?

Significance of the Research

This study provides critical information related to the impact faculty members have on college student alcohol use through the social learning theory theoretical perspective. The findings enable colleges to better combat the pervasive problem of college student alcohol use. If faculty members are not influential on students' perceptions and drinking behaviors, colleges can focus their limited prevention resources toward other, more effective, prevention strategies. If faculty members are found to be influential, attention should be turned to researching effective faculty focused interventions to combat the problem of alcohol misuse.

Delimitations

The current research has limitations. First, self-report data was used to determine drinking levels. It is plausible that students in this research did not accurately report their drinking habits due to the sensitive nature of the data and that underage drinking is illegal for those under the age of 21. This limitation was minimized through ensuring anonymity of the participants. Additionally, research has illustrated the validity of self-report data regarding alcohol consumption (Marlatt, Kivlahan, Dimeff, Larimer, Quigley, Somers, & Williams, 1998).

Another limitation is the fact that students were asked to recall interactions in the past with faculty members, specifically regarding the communication around alcohol use. Students could inaccurately recall or interpret the faculty communication. However, self-report data collection was the most practical and cost-effective way to collect the data for the current study.

Additionally, the higher education system in which this data was collected was 81.9% white, which could make the results difficult to generalize to more diverse higher education systems. Also, all five of the two-year institutions in this study have on-campus living facilities, while only 26% of two-year college in U.S. offer on-campus housing (American Association of Community Colleges, 2016), which makes the results difficult to generalize to two-year campuses without on-campus living facilities.

Organization of Remaining Chapters

In order to achieve the purpose of this research, the remainder of this dissertation is organized in chapter format. Chapter 2 reviews the literature on the scope of college student drinking, the impact college student alcohol use has on students' success. It also provides an overview of the different influencers on college student alcohol use; specifically focusing on the research related to faculty influence on college student alcohol use providing a theoretical framework that guides this study. Chapter 3 provides a detailed explanation of the methods and procedures that were used to answer the research questions. Specifically, data collection and analyses methods are described and discussed. Chapter 4 shares the findings from the data, including an overview of the sample, descriptive statistics of the participants, and results of each research question and sub-question. Chapter 5 consists of a discussion of the findings. Additionally, conclusions are shared about each research question, implications for higher education faculty, staff, and administrators are shared, future research options are presented, and implications for the Social Learning Theory.

CHAPTER 2. LITERATURE REVIEW

Each year, the U.S. spends roughly about \$330 billion on higher education (Mallory & Clement, 2009). Just over half of the funds to cover this high price comes from private support (e.g. tuition payments, scholarships) with the rest coming from state and federal governments (Mallory & Clement, 2009). With this substantial investment it is no surprise that higher education institutions are being monitored by private and public entities.

Monitoring and improving students' success in higher education is not a new concept in the U.S.. According to Wellman (2006), "Access, quality, and accountability have been framing the context for higher education in the United State since the 1950's" (p. 113). However, accountability has gained considerable attention in the recent decades (Mallory & Clement, 2009).

The focused attention started with the adoption of the enrollment management model in the late 1970s and early 1980s. It prompted higher education institutions to move from solely focusing on increasing the number of admissions to looking at the lifespan of a student from recruitment to graduation (Huddleston, 2000). This change was also spurred by research examining the cost of attrition, it was found that the cost of recruiting one new student to college was approximate to the cost of retaining three to five already enrolled students (Noel, Levitz, & Saluri, 1985). With this new knowledge, colleges and universities shifted their focus to improving retention and completion rates of students through understanding the factors that impact success along with the strategies and programs aimed to support students (Selingo, 2015).

This focus has become even more essential over the past decade with federal and state officials calling for additional accountability from higher education institutions. Historically, most colleges have received state funding based on how many full-time equivalent students they

enrolled at the beginning of a semester, which provided incentives for colleges to admit students. However with the shift to focus on accountability some states link funding to student success measures such as course completion, transfer rates, time to degree, graduation rates, or the number of graduates from underrepresented populations (National Conference of State Legislatures, 2015). In fact, as of 2015, 32 states had adopted a funding formula or policy to allocate state funding based on student success performance indicators and five states have committed to transition to some type of performance funding in the foreseeable future (National Conference of State Legislatures, 2015). No matter the motivation, historical and recent research has enabled higher education institutions to better understand the factors impacting college students' success and gain a focused understanding of the programs that bolster that success (Mallory & Clement, 2009).

Specifically, the factors on student persistence in college have been widely studied in response to the increasing national concern about high attrition rates among college students (Barnett, 2011; Braxton, Hirschy & McClendon, 2004; Pascarella & Terenzini, 2005). It is through this large body of literature that multiple factors, operating in multiple settings, have been identified as influencing college student learning and retention (Pascarella & Terenzini, 2005; Reason, 2009). By thoroughly reviewing and examining the literature available, Terenzini and Reason (2005) identified a comprehensive model of influences on student learning and persistence as explained by Reason (2009). The framework encompasses four constructs that impact college student outcomes: student precollege characteristics and experiences, the organizational context, the student peer environment, and the individual student experience (Reason, 2009; Terenzini & Reason, 2005).

A student comes to higher education with many prior academic and social experiences that impact their ability to be successful. Research illustrates sociodemographic traits including socioeconomic status, ethnicity, and race are factors in college students' success (Reason, 2009). It has been found that a students' socioeconomic status is a powerful predictor of retention in higher education, second only to high school grade point average (ACT, 2004). Asian and White students persist at higher rates than do other students of color (Reason, 2009). It has also been demonstrated that parent and family support impacts students' persistence regardless of racial or ethnic background (Braxton, Bray, & Berger, 2000). In general, sociodemographic research has yielded general understandings regarding factors impacting students' success. Students' academic preparation and performance are also strong predictors of college persistence and degree attainment. Specifically, it has been found that a student's completion of high-level math courses demonstrated the greatest impact on college readiness and successful persistence into the second year of college (Adelman, 2006; Reason, 2009). The rigor of a student's high school curriculum and their participation in college preparatory coursework are also strong predictors of success in higher education (Reason, 2009).

The organizational context has also been identified as impacting college student success. Structural-demographic characteristics (e.g. size of institution, public vs. private) have been shown to impact success rates of students. In general, the smaller the institution the higher probability of students being successful. Most structural characteristics are unable to be changed; institutional size, location, and source of support are not easily manipulated, however, the behavior, policies, and practices of an institution are much more malleable (Reason, 2009). These more flexible organizational factors, which are termed organizational behavior dimensions, "are more a function of what institutions do (and how they do it) than what they are"

(Reason, 2009, p. 668). Research supports that students' success and positive outcomes are more about what an institution does and less about what an institution is (Pascarella & Terenzini, 2005; Reason, 2009).

The peer environment, the system of both dominant and normative values, beliefs, and expectations that characterize an institution's student body (Terenzini & Reason, 2005), is also influential on students' persistence. The peer environment is not a tangible act or item, it is the 'sense of place' that portrays what others value and expect both socially and academically (Terenzini & Reason, 2005). The peer environment and a student's social integration into that environment, has shown to be important to student persistence – especially in residential colleges and universities (Braxton & Lee, 2005). Most institutions have recognized the importance of acclimating incoming students to the academic and behavioral expectations of the environment, planning specific events and programs to ensure a smooth and clear transition for these students. Additionally, institutions have strived to ensure their environmental norms and expectations are healthy – and focus on positive norms versus detrimental norms or expectations such as high-risk alcohol use or academic dishonesty.

Individual student experiences are the last and most immediate set of influences impacting student persistence (Reason, 2009) and include students' experiences in their academic and non-academic lives. Researchers have clustered these experiences into three areas: curricular experiences, classroom experiences, and co-curricular experiences. Curricular experiences encompass not only the students' academic major and course of study, which are influential on students' persistence, but also the other curricular experiences such as participation in a first year experience course or internship (Reason, 2009). Classroom experiences also impact students' success; research has demonstrated that “active forms of teaching increase

social integration and commitment to an institution, two factors understood to be directly related to the likelihood that a student would persist” (Reason, 2009, p. 674). Finally, students’ various out-of-class (co-curricular) experiences influence their outcomes in higher education. Co-curricular experiences vary greatly ranging from participation in a student club or organization to a part-time job; however, it is widely acknowledged that the more students engage with college life, they more likely they are to persist (Reason, 2009; Tinto, 1999).

Student’s success in higher education is influenced by various factors and cannot be isolated to just one program or individual. Reason (2009) explains that “we must stop searching for the silver bullet – the panacea - to solve our institutions’ retention problems. Rather, we much approach the student and practice of student persistence as a multidimensional problem” (p. 675). By focusing efforts and recognizing the impact both academic and non-academic experiences have on students, higher education institutions can increase students’ success.

One such factor that impacts academic and non-academic experience are the relationships students establish at the institution, specifically, their relationship with faculty. Chickering and Gamson (1987) indicate that frequent faculty-student contact in and out of the classroom is the most important factor in student motivation and involvement. The importance of the faculty-student connection was first established by Beal and Noel (1980) when reviewing the data from the American College Testing program and the National Center for Higher Education Management Systems; their review revealed ‘inadequate academic advising’ as the biggest barrier to students’ retention and conversely the ‘caring attitude of faculty and staff’ was the strongest positive link with students’ persistence (Backhus, 1989).

More recent research has confirmed these findings, Pascarella and Terenzini (2005) demonstrated that those institutions with higher student persistence and achievement support and

facilitate frequent contact between students and faculty members. Additionally, students who have meaningful interactions with faculty were more likely to have a sense of purpose and competence for succeeding in college (Martin, 2000).

This study's purpose was to determine if faculty members have an impact on college student alcohol use. Few researchers have sought to understand faculty perception and communication with students about alcohol use and even fewer have examined if faculty expectations and communication about alcohol matter to students. In this chapter a thorough review will be shared of the current context of college student alcohol use and the impact alcohol use has on students' success. Next, the literature regarding the influencers on college students' alcohol use will be explored. The theoretical framework of Social Norms Theory, Social Learning Theory, and the resulting Social Cognitive theory will be explained as they apply to college student alcohol use. Specifically, the existing research about the direct and indirect influence peers have on college student alcohol use will be explained. Then the substantial impact monitoring, modeling, and communication of parents regarding alcohol use will be shared. The influence faculty members play on college students' success will then be reviewed. The limited literature that has explored faculty members' perceptions and communication behaviors related to college student alcohol use and their engagement in prevention efforts will be explained. Finally, the limitations of the current literature regarding the influences on college student alcohol use will be discussed.

College Student Alcohol Use

High-risk alcohol use has been regarded as the most serious health problem faced by U.S. colleges and universities (Dodd, Glassman, Webb, & Miller, 2010; Ham & Hope, 2003); in 2007 the U.S. Surgeon General established a national health goal that aimed to reduce high-risk

drinking among college students by 50 percent (U.S. Department of Health and Human Services, 2007). Heavy drinking, alcohol-related problems, and other negative consequences related to drinking escalate during late adolescence and early adulthood (Brown et al., 2008; Grekin & Sher, 2006; Schulenberg & Maggs, 2002).

In the U.S., alcohol use starts and typically escalates between the ages of 16 and 20 years of ages. Concurrently, late adolescents are also experiencing dramatic emotional, social, and physical changes, including graduating from high school, development of romantic relationships, leaving the rearing home, obtaining a driver's license, and entering/attending college (Brown et al., 2008). Consequently, hazardous drinking patterns also develop during this time and continue to intensify through the early twenties (Brown et al., 2008). Changes in contexts, processes, and developmental milestones all play a critical role in the development of these hazardous drinking behaviors.

Attending college is one critical developmental task that seems to considerably impact the evolution of alcohol use in adolescents. It has been found that during high school, college-bound students have lower rates of alcohol and other drug use than their noncollege-bound classmates (Hingson, Heeren, Winter, & Wechsler, 2005). However, in the years immediately following high school college students have higher rates of alcohol use and frequent heavy drinking (Leeman & Wapner, 2001; Schulenberg & Maggs, 2002). This was confirmed by Hingson, Zha, & Weitzman (2009), who found college students were more likely than same-age respondents not enrolled in college to engage in heavy episodic drinking, defined as five or more drinks in one sitting, over the past month, and to report driving under the influence of alcohol.

The American College Health Association's (ACHA) National College Health Assessment (2014), which is the largest known comprehensive data set on college student health,

indicates that alcohol is the number one drug of choice for college students. In 2014, the ACHA found that 61.3 percent of college students report drinking alcohol within the last 30 days. The 2011, *Monitoring the Future* report also found 64 percent of full-time college students reported drinking in the previous 30 days, and about 14 percent of full-time college students reported having 10 or more drinks in a row at least once in the prior two weeks, with approximately 5 percent reporting 15 or more drinks in a row at least once (Johnston, O'Malley, Bachman, & Schulenberg, 2012). The CORE Institute (2014), which collects data from more than 100 colleges and universities through a random sample of undergraduate students, recently found that 60.3 percent of underage (under 21 years of age) students reported consuming alcohol in the past 30 days and just under 43 percent of all students reported drinking in a high-risk ways (five or more drinks in one sitting) in the previous two weeks. Additionally, it was found that 19 percent of college students between the ages of 18 and 24 met the criteria for alcohol abuse or dependence, but only five percent of these students sought treatment (CASA, 2007).

The negative consequences of alcohol use during college are multifaceted, and include loss of academic potential, risky sexual behavior, legal consequences, injury, and even death (Hingson, Zha, & Weitzman, 2009). Nationally, about a quarter of college students report having some type of academic consequence related to their alcohol use, which includes missing class, performing poorly on a test or important project, and receiving lower grades overall (CORE, 2014; Wechsler, et al., 2002). Alcohol use can also hamper essential processes needed for academic success including memory, abstract thinking, problem solving, and motor skills. In addition to the academic consequences, the legal consequences can be abundant. In 2013, just under 31 percent of college students reported some form of public misconduct (e.g. trouble with the police, fighting, DWI/DUI) at least once in the past year as a result of drinking alcohol

(CORE, 2014). These alcohol violations can follow students well after graduation, staying on students' academic and legal records, which may limit their career options and ability to obtain licensures in their chosen fields (CASA, 2007).

Not only is high-risk alcohol use detrimental to students' academic and career success, it directly impacts their physical well-being. Hingson, Zha, and Weitzman (2009) reported that 599,000 college students between the ages of 18 and 24 are unintentionally injured while under the influence of alcohol and 97,000 are victims of alcohol-related sexual assault. Approximately 400,000 students between the ages of 18 and 24 reported having unprotected sex under the influence of alcohol, and more than 100,000 students reported being too intoxicated to know if they had consented to having sex (Hingson, Heeren, Zakocs, Kopstein, & Wechsler, 2002). Long term cognitive consequences also face college-aged drinkers. Recent brain imaging research has revealed that an adolescent's brain continues to develop into a person's mid-to-late twenties, which indicates that young adult brain development can be permanently hindered by alcohol use in college (Brown et al., 2008; U.S. Department of Health and Human Services, 2007).

College student alcohol use also creates negative secondhand effects that can impact the entire community (CASA, 2007; Del Boca, Darkes, Greenbaum, & Goldman, 2004; Ham & Hope, 2003). Vandalism, unruly behavior, property damage, fights, and death can all be afflicted on innocent bystanders because of alcohol use of others (U.S. Department of Health and Human Services, 2007). Hingson, et al. (2009) estimated that annually 696,000 students are assaulted by another student who has been drinking.

In addition to physical second-hand effects, monetary costs can be incurred because of college student alcohol use. These costs can include increased campus security staff and

counselors, loss of tuition from dropouts, and the legal cost of lawsuits against higher education institutions (CASA, 2007).

Admittedly, the most costly effect from drinking is the loss of life. It has been estimated that 1,825 college students die annually from alcohol-related unintentional injuries (including motor vehicle crashes) (Hingson et al., 2009). Furthermore, 45 percent of people who died in car crashes involving a drunk driver under the age of 21 were people other than the driver (U.S. Department of Health and Human Services, 2007). Given all these negative consequences, it is clear that alcohol use during college is a pervasive problem impacting not only the individuals engaging in the alcohol use, but other students and the entire college community.

Conceptual Framework for the Study

The factors impacting college student success are multipronged and have been thoroughly researched, establishing that students who interact with faculty in and outside the classroom are more successful. Conversely, research has identified that alcohol use is shown to be detrimental to the success of college students. The following review of the social norms theory, social learning theory, and the resulting social cognitive theory establishes the conceptual framework for this study.

Social Norms Theory

Social norms theory (SNT) has established that individuals adopt group norms (attitudes and beliefs) through interactions with others in their environment, and their behavior is subsequently shaped to conform to perceived group expectations (Borsari & Carey, 2003). Perceived norms consist of both descriptive and injunctive norms (Rimal & Real, 2005). Descriptive or subjective norms reference an individual's idea about the commonness of a particular behavior; injunctive norms relate to an individual's thoughts about how others

perceive a behavior – essentially if they approve or disapprove (Rimal & Real, 2005; Maisto, Bishop, & Hart, 2012). Perkins (2002) has explained the impact of social norms on individual behavior decisions, stating:

Indeed, norms can be powerful agents of control as “choices” of behavior are framed by these norms and as the course of behavior most commonly taken is typically in accordance with normative directive of “reference groups” that are most important to the individual. (p. 164)

This theory substantiates that the understanding of, or how, influential individual impact students’ alcohol use is critical. According to the social norms perspective “individuals can enact behavior because they believe that people important to them expect them to do so (subjective norms) or because failure to do so will result in social sanctions (injunctive norms)” (Rimal & Real, 2005, p. 392). It is known that faculty members play a critical role in students’ likelihood to persist to graduation and are typically identified by students as an important factor in their college experience (Pascarella & Terenzini, 2005, Komarraju et al., 2010). From that understanding, it could be postulated that faculty and staff members may affect students’ descriptive and injunctive norms regarding alcohol use.

Social Learning Theory

Social learning theory (SLT) also establishes a framework for understanding how behaviors are learned through both the social and cognitive processes (Ward & Gryczynski, 2009). Grusec (1992) explains that SLT theory is concerned with explaining how individuals, ...operate cognitively on their social experiences and with how these cognitive operations then come to influence their behavior and development. Individuals are believed to

abstract and integrate information that is encountered in a variety of social experiences, such as exposure to models, verbal discussions, and discipline encounters. (p. 781)

Deviant behavior has been explained under the context of social learning and that the deviant behavior is a learned behavior (Durkin, Wolfe, & Clark, 2005). SLT framework has been further extended to help understand how social forces shape drinking behavior of college students (Ward & Gryczynski, 2009).

SLT has established that there are several key elements to the learning process. The first assumption of the SLT is that social behavior is acquired both through direct conditioning ‘and through imitation or modeling of others’ behavior (Akers, Krohn, Lanza-Kaduce, & Radosevich, 1979, p. 638). These imitating behaviors are strengthened or diminished through *differential reinforcement* which consists of the rewards and punishments that are the result of the behavior (Akers et al., 1979). These differential reinforcements can be social or nonsocial; for example a social differential reinforcement could be teasing from friends about a given behavior, praise, or acceptance; a nonsocial differential reinforcement example could be the physical effects of drinking too much alcohol (Akers et al., 1979). Another key element of the learning process is *differential association*, which involves the direct association with individuals who engage in certain behaviors, as well as “the exposure to different sets of values and norms as a consequence of such an association” (Durkin, Wolfe, & Clark, 2005, p. 259). Additionally, *definitions* are an important aspect of the learning process, “people learn in interaction with significant groups in their lives evaluative definitions (norms, attitudes, orientations) of the behavior as good or bad” (Akers et al., 1979, p.638). Definitions can be specific, whether or not a behavior was viewed in a positive or negative light, or they can be general such as morals or abiding by laws (Akers, 2000; Durkin, Wolfe, & Clark, 2005).

SLT has strong theoretical support and has been used to explain various high-risk behaviors among late adolescents and college students such as: drinking and driving (DiBlasio, 1986), academic dishonesty (Michaels & Miethe, 1989), adolescent and college student substance abuse (Akers et al., 1979; Durkin, Wolfe, & Phillips, 1996; LaBrie, Huchting, Pedersen & Hummer, 2007; Ward & Gryczynski, 2009). Additionally, social influence factors on college student drinking, such as parental and peer modeling have been understood using the SLT (Abar et al., 2011; Larimer, Irvine, Kilmer, & Marlatt, 1997; LaBrie, Huchting, Pedersen & Hummer, 2007).

Social Cognitive Theory

The social cognitive theory (SCT) is a product of the original SLT; the central tenant of SCT is that if an individual is motivated to learn a specific behavior it will occur through observation of others. In 1986 Bandura relabeled SLT to SCT; accounting for the self-regulation and self-efficacy component on behavior (Grusec, 1992). Much like SLT, SCT is centered on how individuals operate cognitively on their social experiences and how their cognitive operations then influence their behavior and development. Specifically, it is theorized that individuals obtain and apply information that is encountered in various social experiences such as verbal discussions, discipline encounters, and exposure to models (Grusec, 1992). Simply, SCT provides an explanation for human behavior: it is an interaction of an individual's thoughts, behavior, and their environment these three elements create a concept know as *reciprocal determinism*.

Prior to the development of SCT, human behavior was previously explained in terms of a 'unidirectional causation', basically that individuals' behavior was shaped by the environmental or internal influences. SCT explains behavior in terms of triadic reciprocal causation, "In this

transitional view of self and society, personal factors in the form of cognitive, affective, and biological events, behavioral patterns, and environmental events all operate as interacting determinants that influence each other bidirectionally” (Bandura, 2001, p. 266). Figure 1 represents the triadic relationship of human behavior described by the SCT.

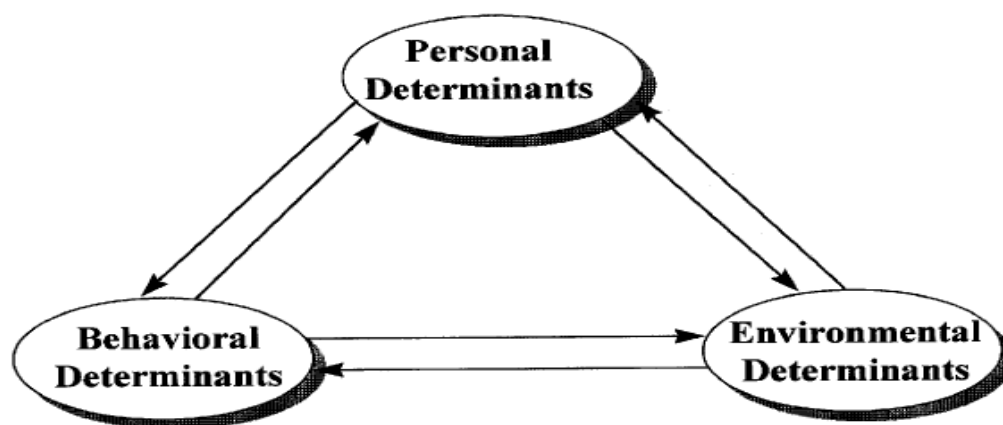


Figure 1. Schematization of triadic reciprocal causation in the causal model of social cognitive theory (Bandura, 2001, p. 266).

Influences on College Students’ Alcohol Use

It has been found that alcohol use escalates in college and can negatively impact the health and well-being of college students and the surrounding community (Hingson et al., 2009). Just as the consequences of college-student alcohol use are multidimensional, so are the prevention strategies that colleges employ to combat this persistent problem. The increased national attention on high-risk college drinking has prompted universities to initiate or increase their prevention efforts (Wechsler et al., 2002). Understanding the variables contributing to college student alcohol use is essential to informing the prevention and intervention strategies

aimed to reduce this problem (Ham & Hope, 2003). Prevention efforts have led to examining the factors that influence this behavior – these can include not only the college environment and student demographic characteristics, but also the influential individuals in college students’ lives, including peers (Borsari & Carey, 2006; Weitzman, Nelson, & Wechsler, 2003), parents (Abar, Abar, & Turrisi, 2009; Cosden, Gauthier, & Hughes, 2013; Wood, Read, Mitchell, & Brand, 2004), and faculty members (Perkins, 2002).

Social Learning Theory and the resulting Social Cognitive Theory establish that individuals learn their behavior through social experiences such as verbal discussions, discipline encounters, and exposure to models. Specifically, college students’ alcohol use is influenced by their social experiences involving drinking and drinking behaviors, and through communications by those that are influential in their life about drinking (Abar et al., 2011; LaBrie, Huchting, Pedersen & Hummer, 2007). This section will explain the various influencers on college student alcohol use.

Institutional and Individual Influence

With the negative implications associated with college student alcohol use, researchers have thoroughly examined the factors that impact college student drinking. The environmental characteristics of the institution have been shown to impact drinking levels among students. Specifically, lower drinking rates are found at women’s, historically black, and two year colleges. Higher drinking rates are more prevalent at institutions that have athletic programs, Greek systems, and large student bodies (Presley, Meilman & Leichliter, 2002).

Demographic characteristics of a student can also impact college student alcohol use. Historically in the U.S. men tend to drink more often and consume more when drinking than women (Wilsnack, Vogeltanz, Wilsnack & Harris, 2000). However, evidence suggest that female

college student drinking is now comparable to their male peers (O'Malley & Johnston, 2002; Wechsler et al., 2002; Young, Morales, McCabe, Boyd, & D'Arcy, 2005). The rates of frequent high-risk alcohol among college women have increased over time, (Wechsler et al., 2002); Hoepfner and colleagues (2013) found that female college students, compared to their male counterparts, are more likely to exceed the weekly alcohol intake limits recommended by the CDC. This trend coupled with the fact that smaller quantities of alcohol are needed to produce an intoxicating effect in women than in men, places women at a greater risk for negative consequences (Hoepfner, Paskausky, Jackson, & Barnett, 2013; LaBrie et al., 2007).

Various studies have demonstrated an individual's age and progression in college also impact high-risk drinking. Students under the age of 21 are more likely to report high-risk drinking than those over the age of 21 (Wechsler et al., 2000) and that alcohol use usually peaks around age 21 (U.S. Department of Health and Human Services, 2007). The frequency and quantity of alcohol consumption is also higher among first year students than upper-class students (Ichiyama & Kruse, 1998; Turrisi, Padilla & Wiermsa, 2000). Subsequently, research by Thompson, Leinfelt, and Smyth (2006) found that first-year students' likelihood for being arrested for alcohol-related crimes was higher than for their upper-class peers.

Peer Influence

Peer influence consistently emerges as "one of the most powerful predictors of the initiation and maintenance of drinking in college setting" (Borsari & Carey, 2006, p. 361). As late adolescents transition to college they place a greater value on peer relationships and are increasingly exposed to cultural norms and influences – both of which encourage experimentation with heavy alcohol use (Brown et al., 2008). Maggs (1997) explains that using alcohol frequently facilitates the adoption of a new college student identity, and serves as a way

to exemplify freedom from parental control. Therefore, students transitioning to college seek to develop peer relationships through immersing themselves in the social environment; in this environment students will experience peer-drinking levels and positive alcohol-related attitudes unlike anything previously encountered. Consequently, this amplified exposure to drinking leads to increased use “alcohol-related attitudes and behaviors of peers are consistently related to personal attitudes and behaviors” (Borsari & Carey, 2001, p. 392). When reviewing the literature on the influence peers have on college student drinking from 1970 to 2000, Borsari and Carey (2001), using the Social Learning Theory framework, examined the two different ways peers influence alcohol: directly and indirectly.

According to Borsari and Carey (2001) “direct (or active) peer influences explicitly focus on getting a person to drink, and can range from polite gestures (e.g., offering to get a peer a drink, buying a round) to overt commands or encouragement to drink (e.g., forcing others to drink during drinking games)” (p. 393). Direct peer influences are wide-ranging and have a significant impact on students’ alcohol use. With alcohol use being common at many social functions in college, students are exposed to direct offers of alcohol frequently and refusing offers of alcohol can lead to exclusion (Rabow & Duncan-Schill, 1994). In fact, research has correlated the amount of direct offers to drink with increased alcohol use and problems (Wood, Read, Palfai, & Stevenson, 2001). However, research suggests that maturity (e.g., year in school) and/or social confidence (e.g., socializing with a known peer group) makes college students more resilient to these direct peer influences. Inversely, new students trying to ‘fit in’ or develop new friendships with peers may be more likely to accept offers of alcohol or engage in games or other activities that require drinking to participate (Borsari & Carey, 2001).

Indirect influences on college student alcohol use have also been examined in the literature since the mid-1970s (Borsari & Carey, 2001). Indirect peer influences are things like admired or accepted behaviors in situations where alcohol is present. Modeling and perceived norms are two indirect (passive) influences that have been directly connected to college student drinking behavior. According to Borsari and Carey (2001) both “of these indirect influences set the stage for anticipated social reinforcement” (p. 393). Indirect influences can also include observing others drinking, perceptions of peers’ drinking behaviors and perceived social expectations. Extensive research has identified the many facets of indirect influences on college student alcohol use, with one of the most prevalent indirect influences being modeling (e.g. White, Johnson, & Buyske, 2000). Research related to modeling, which is defined by Borsari and Carey (2001) as temporary and concurrent imitation of another’s behavior, conclude that participants exposed to a heavy-drinking model consume more than students exposed to a light-drinking model or no models at all.

Additionally, social norms, which are classified as indirect influences, are among the strongest influences on college drinking (Neighbors, Lee, Lewis, Fossos, & Larimer, 2007; Rinker & Neighbors, 2014). The theory of normative social behavior postulates that injunctive norms and descriptive norms impact drinking behavior (Rimal & Real, 2005). Injunctive norms include the perceptions of others’ approval of drinking or the ‘unwritten rules’ of the peer group (Borsari & Carey, 2001; 2003) and descriptive which refers “to how much or how frequently one drinks” while perceived descriptive norms refer to “the perception of how much or how frequently other college students drink” (Rinker & Neighbors, 2014). Both are associated with their own heavy drinking and alcohol-related problems (Borsari & Carey, 2003; Lewis & Neighbors, 2004).

It has been consistently documented that college students hold misperceptions about the alcohol use of their peers and these misperceptions can contribute to increased alcohol use and alcohol-related problems (Perkins, 2002). Interventions have been developed to correct misperception and reduce overestimations of drinking norms among college students. These interventions have included providing accurate information contrasting their perceptions of the norms and actual norms with their own drinking behavior (Larimer & Cronce, 2007; Rinker & Neighbors, 2014). Reducing students' perceived drinking norms have shown to reduce heavy drinking and related problems (LaBrie, Hummer, Neighbors, & Pedersen, 2008; Neighbors, Larimer, & Lewis, 2004). Research also indicates that the "degree of overestimation varies by specificity of the normative referent group" (Rinker & Neighbors, 2014, p. 1298). It has been found that there is a strong association between norms and drinking, but the relationship is made stronger the more specific the referent group (e.g., reporting drinking behaviors of student who lived in the same complex as the students, as opposed to reporting the drinking behaviors of all students living on campus) (Lewis & Neighbors, 2004, 2007; Rinker & Neighbors, 2014).

It is clear that peers influence whether or not college students choose to drink (Borsari & Carey, 2006; 2001). Peer influence occurs directly (or actively) through offers of alcohol and urging one to drink and indirectly through modeling and social norms (Borsari & Carey, 2001; 2003). No matter direct or indirect, peer influence has demonstrated to be a substantial factor in college student alcohol use, yet it is not the only factor contributing to college student alcohol use.

Parental Influence

Although peer and environmental factors have received the most attention in the literature regarding college student alcohol use, it has also been established that parents play a critical role

in influencing alcohol use among college students (Abar, Abar, & Turrisi, 2009; Abar & Turrisi, 2008; Turrisi, Wiersma, & Hughes, 2000; Walls, Fairlie, & Wood, 2009; Wood, Read, Mitchell, & Brand, 2004). The typical assumption is that once children reach late adolescents, their parents have minimal influences on their decisions. Literature over the past 15 years has demonstrated this to be false and the opposite to be true. Parents are influential in their children's decisions in late adolescences and once at college (Abar, Turrisi, & Abar, 2011; Turrisi & Ray, 2010; Vangsness, 2009). Additionally, parental behavior and attitudes can influence college student alcohol use in different ways (Cosden, Gauthier, & Hughes, 2013; Walls, Fairlie, & Wood, 2009), ranging from modeling drinking behavior to explicit communication regarding expectations of alcohol use. Parental influence on college students' alcohol use can be interpreted as promoting alcohol consumption or protective (encouraging low-risk or non-use) (Walls, Fairlie, & Wood, 2009).

Further, a clear relationship has been recognized between the drinking patterns of college students and drinking patterns of their family members (Abar, Abar, & Turrisi, 2009; Capone & Wood, 2008; Weitzman & Wechsler, 2000). Weitzman and Wechsler (2000) surveyed over 17,000 college students nationally and found that those students who indicated their parents were "problem drinkers" were more likely to self-identify as having an alcohol problem and meet criteria for an alcoholism diagnosis. Additionally, Capone and Wood (2008) noted that in their study of 400 college students those with more family members who used alcohol or had alcohol problems reported more alcohol-related problems in college.

As such, it has been established that parental modeling of alcohol use, just like peer modeling, has a strong influence on children's alcohol use and associated negative consequences (White, Johnson, & Buyske, 2000). Children "observe parental alcohol use and, as a result,

imitate these modeled behaviors” (Abar, Turrisi, & Abar, 2011, p. 1103). These modeling behaviors involving alcohol were influential on the students’ future alcohol use and related negative consequences college students experience (Abar, Abar, & Turrisi, 2009).

In addition to parental modeling, parents’ attitudes and rules about their children’s alcohol consumption can influence their drinking at college. Markedly, about 70 percent of college students said their parents’ concerns or expectations about alcohol influenced how, and if, they drank alcohol (CASA, 2007). First year students who perceived more parental approval of their drinking were more likely to experience alcohol-related problems in college (Boyle & Boekeloo, 2006). Turrisi and Ray (2010) found that students who perceived their parents as disapproving of high-risk drinking tendencies experienced fewer higher risk drinking incidents. Abar et al. (2009) also found that students with more permissive parents drank significantly more and experienced more negative consequences associated with alcohol consumption. This same research has dispelled the notion that if parents allow their late adolescent child (high school student) to use alcohol in their homes in a controlled way, the less likely they would misuse alcohol later (at college). Conversely, they found that “parent permissibility was associated with higher drinking rates and experienced consequences for college teens than a strict policy of no underage use” (Abar et al., 2009, p. 545).

Finally, research has identified that parental communication and parental involvement with their college student moderates student alcohol consumption at college (Abar & Turrisi, 2008; Turrisi, Wiersma, & Hughes, 2000; Turrisi & Ray, 2010; Wood, Read, Mitchell, & Brand, 2004). Written or verbal interactions between parents and students, along with other forms of parental involvement focused on alcohol use (e.g. parental monitoring), has been found to influence college student drinking (Cosden, Gauthier, & Hughes, 2013). With students talking to

their parents frequently (approximately 40 percent of first year students talking to their parents daily), parental communication about alcohol use has been shown to matter in college students' alcohol use (Liu, Sharkness, & Pryor, 2008). Small and colleagues' (2011) research supports the efforts institutions have made to engage parents in alcohol use prevention. They found when parents spent at least 30 minutes a day talking with their student, the student consumed fewer drinks and was less likely to engage in heavy drinking than on days when they had no communication. Researchers (Abar & Turrisi, 2008; Turrisi & Ray, 2010) also found that higher levels of parental monitoring and understanding of how their students spent their free time was associated with lower levels of drinking and alcohol-use related problems at college.

Despite these promising findings, other research has found that alcohol-specific communication from parents did not always result in lower levels of drinking, indicating the importance of examining the quantity and quality of the communication (Van Der Vost, Burk, & Engels, 2010). It should also be noted that parental communication and influence could be mitigated by the social influence factors that are present, specifically, parental modeling. It is clear that high-risk alcohol use among college students can be impacted not only by parents' communication regarding alcohol, but more significantly by parental modeling; this could explain why interventions that have been found to be successful in regions with low-risk alcohol use among parents have not been successful in different regions with high-risk alcohol use (Vangsness, 2009).

It is evident that parental modeling, monitoring and communication regarding alcohol use impacts whether or not college students choose to drink and how much they drink (Abar & Turrisi, 2008; Turrisi & Ray, 2010; Wood, Read, Mitchell, & Brand, 2004). Parents have become an important component in the alcohol use prevention efforts on college campuses

(Vangsness, 2009). Although parents are still very influential in their children's decisions after transitioning to college, faculty members have shown to also be influential on college students' choices.

Faculty Influence

While, it has been demonstrated that peers and parents influence college students' decisions related to alcohol use, the role that faculty members play in those decisions is less clear (Heyne, 1984; Perkins, 2002; Ryan & DeJong, 1998). Research has indicated that student-faculty interactions can be crucial to students' academic development, motivation, and achievement (Komarraju, Musulkin, & Bhattacharya, 2010; Pascarella & Terenzini, 2005). In fact, colleges that support and facilitate frequent contact between student and faculty members see an increase in student persistence and achievement (Terenzini & Pascarella, 1980, Pascarella & Terenzini, 2005). Specifically, Martin (2000) found that students engaging in meaningful interactions with faculty were more likely to have a sense of purpose and competence for succeeding in college.

Heyne (1984) provided the baseline data related to faculty members' knowledge and attitudes about alcohol use, and their interest in participating in alcohol use prevention efforts. His limited study, examining faculty members at one institution, revealed that faculty members were concerned with student alcohol use and were interested in helping students, but were not aware of the best way to provide assistance. Additionally, faculty members indicated they were unaware of the extent and severity of alcohol use among the student population and the negative impact it can have on students' academic progress (Heyne, 1984). Perhaps the most telling finding from Heyne's (1984) research was that faculty members indicated wanting to help students, but they had little interest in actually developing, implementing, or evaluating alcohol education and prevention programs.

Leavy and Dunlosky (1989) reported similar findings in their research that examined the alcohol consumption patterns and perceptions of faculty and undergraduate students. Their study included 155 faculty members and 487 undergraduate students from two colleges indicated that faculty underestimate the quantity and frequency of college student alcohol use. They concluded, “faculty show a generally conservative orientation toward the definition of problem drinking, particularly concerning consumption, frequency of intoxication and drinking at inappropriate times, irrespective of the difference in student-faculty drinking habits” (Leavy & Dunlosky, 1989, p. 106).

The Core Institute (1996) followed up on the faculty research of the 1980s, surveying over 2,900 faculty and staff members at 29 colleges to assess faculty and staff views regarding alcohol and other drugs (as cited in Ryan & DeJong, 1998). In concord with previous research, they also determined that faculty members were concerned about the well-being of their students and recognized the detrimental impact alcohol could have on students’ academic success (Ryan & DeJong, 1998). Although, it was found that faculty and staff held misperceptions of student norms regarding alcohol and other drugs, and, just as in Heyne (1984), very few faculty members indicated being actively involved in prevention efforts (Ryan & DeJong, 1998).

Beseler Thompson and Vangsness Frisch (2014) recently surveyed more than 260 faculty members at two different types of institutions on their perceptions of college student alcohol use and communication with students regarding alcohol. Their findings were consistent with prior research (Heyne, 1984; Leavy and Dunlosky, 1989; Ryan & DeJong, 1998) indicating faculty members underestimate the amount and frequency alcohol is being used by students at their college. Specifically, Beseler Thompson and Vangsness Frisch (2014) found faculty members underestimated the numbers of students who consumed alcohol, drank in high risk way (5 or

more drinking in one sitting) and who felt alcohol is necessary to have a good time. Their study also confirmed that faculty wanted to help students, but did not want to be directly involved in prevention efforts and were not confident in their abilities to refer students to the help they needed. Interestingly, this study also indicated that faculty members who pro-actively supported alcohol prevention also discussed alcohol in a joking or light-hearted manner more frequently with students. The researchers postulated that those who pro-actively support prevention efforts may use humor and/or light-hearted comments as a conduit to connect with students. Additionally, it was suggested that faculty and staff members who proactively support alcohol and other drug prevention efforts are more likely to discuss alcohol use in general (Beseler Thompson & Vangsness Frisch, 2014).

Faculty members' influence on student alcohol use is much less understood than the impact peers and parents have on student alcohol use (Perkins, 2002; Ryan & DeJong, 1998). Heyne (1984) pointed out the lack of empirical research regarding faculty members' influence on college student alcohol use:

To date there has been no systematic attempt to determine the faculty's potential impact on alcohol education programs on their campuses. Since there has been no research with faculty, this question has gone unanswered. Any programs which have considered the faculty at all have based their hypotheses on pure conjecture of how the faculty may feel or what the faculty "probably" knows about alcohol. (p. 7)

Eighteen years later Perkins (2002) reiterated Heyne's (1984) findings that the research regarding the influence faculty members have on college student alcohol use is limited,

Very little scientific research has been conducted to examine faculty impact on students alcohol use in this capacity, but there is a good deal of speculation about the positive or negative influence of faculty norms in terms of course instruction, role model behavior and personal values communicated to students. (p. 165)

Despite the lack of evidence that faculty members are proficient at and willing to deliver alcohol prevention messages, it has been strongly recommended that practitioners incorporate and engage faculty members, just like parents and peers, in prevention efforts (NIAAA, 2002; U.S. Department of Health and Human Services, 2007). In fact, many institutions of higher education and prevention agencies have developed ‘how to’ guides for faculty discussing ways they can help with high-risk alcohol use prevention efforts (Beseler Thompson & Vangness Frisch, 2014).

These guides are not just modern practice; Heyne (1984) indicated that various campus-specific publications and guides referenced the importance of incorporating faculty in alcohol prevention efforts, but he noted empirical evidence of this practice was unsupported. In 1998, one of the first universal guides aimed to facilitate faculty involvement in prevention efforts was developed for the U.S. Department of Education’s Higher Education Center for Alcohol and Other Drug (Ryan & DeJong, 1998). This publication, *“Making the link: Faculty and prevention,”* provided prevention professionals with ways to educate and engage faculty members in the prevention of students’ high-risk alcohol use, yet the messages in this publication are contradictory. They specify “faculty involvement in prevention is key” (Ryan & DeJong, 1998, p. 1), but just pages later also indicates that “the role faculty can play in prevention has been largely untried and untested” (p. 4).

Many guides and informational literature aimed at engaging faculty members in alcohol use prevention have been produced since Ryan and DeJong's (1998) guide. These guides have included encouraging participation in research activities related to alcohol, infusing prevention-related message into their interactions with students and serving on campus coalitions dedicated to address student alcohol use (Beseler Thompson & Vangness Frisch, 2014; Perkins, 2002). Additionally, they have also attempted to educate faculty members on how to intervene with high-risk drinkers (Pennsylvania Liquor Control Board, 2010), however, most of the strategies explained and encouraged in these guides center on how faculty can educate students on the pharmacological effects and risk regarding alcohol (Perkins, 2002). It is these educational strategies that have been found to be the least effective in reducing college student alcohol use (Holder, 2004; NIAAA, 2002; NIAAA, 2007). Often these methods make students more knowledgeable about alcohol but do not translate into students making behavior modifications (Holder, 2004).

Summary

Institutions of higher education are continually working to increase the success of their students. The emphasis on student success measures, such as retention and graduation rates, has been renewed by state and federal lawmakers linking these measures to funding and accreditation (National Conference of State Legislatures, 2015). Recent and prior student success literature has established that there are a variety of factors and individuals, particular faculty, that are influential on the overall success of college students (Pascarella & Terenzini, 2005; Reason, 2009; Selingo, 2015). One issue that has been established as particularly detrimental to college student success is alcohol use (Dodd, Glassman, Webb, & Miller, 2010; Ham & Hope, 2003; U.S. Department of Health and Human Services, 2007). Alcohol use escalates in college and has

been linked to negative consequences among college student including decreased academic performance, legal consequences, and even death (Hingson, Zha, & Weitzman, 2009).

Just as the consequences of college student alcohol use is multifaceted so are the influencing factors and individuals (Hingson, Zha, & Weitzman, 2009). Research indicates that demographic characteristics of an individual (e.g. gender) and characteristics of the institution (e.g. two year vs. four year) impact alcohol use (Presley, Meilman & Leichliter, 2002).

Additionally, it has been established that influential individuals impact college student alcohol use, including peers (Borsari & Carey, 2006; Weitzman, Nelson, & Wechsler, 2003) and parents (Abar, Abar, & Turrisi, 2009; Cosden, Gauthier, & Hughes, 2013; Wood, Read, Mitchell, & Brand, 2004).

The impact faculty members have on college student alcohol use is less clear. It is known that faculty members play a critical role in students' likelihood to persist to graduation and are typically identified by students as an important factor in their college experience (Pascarella & Terenzini, 2005, Komarraju et al., 2010); however, research into faculty member influence, perceptions, and communication related to college student drinking is scarce (Heyne, 1984; Perkins, 2002). Despite the lack of understanding, prevention practitioners have been encouraged to engage faculty members in alcohol prevention efforts for many years (Beseler Thompson & Vangsness Frisch, 2014; Heyne, 1984; Ryan & DeJong, 1998). Additionally, the value students place on faculty communication and expectations about alcohol use is not thoroughly understood.

Drawing on the conclusion that faculty interactions are influential on students' decisions to stay in school (Pascarella & Terenzini, 2005, Komarraju et al., 2010); SLT provides a solid conceptual framework for extending the knowledge regarding the impact faculty members have

on college student alcohol use. The SLT, and the resulting SCT, theoretical perspectives lend insight into the importance and role faculty members play in college student alcohol use through establishing that influential individuals impact, through communication and modeling, a person's decisions and perceptions.

This review of relevant literature established a need and context for understanding the influence faculty members have on college student alcohol use. Based on the aforementioned literature and theoretical perspectives, the current study sought to understand the influence faculty members have on college student alcohol use; which is needed to better inform prevention practices, with the intent of reducing college student alcohol use. The following chapter will provide an outline of the methodology utilized in the study.

CHAPTER 3. METHODS

Social Learning Theory (SLT) establishes that influential individuals impact, through communication and modeling, decisions and perceptions about alcohol use among college students (Abar et al., 2011; Larimer, Irvine, Kilmer, & Marlatt, 1997; LaBrie, Huchting, Pedersen & Hummer, 2007). Research has illustrated that peers and parents are those influential individuals that impact college student alcohol use; however, despite the large body of literature indicating that faculty interactions are influential on students' decisions to stay in school, very little is actually known about the impact faculty have on college student alcohol use (Pascarella & Terenzini, 2005; Perkins, 2002; Komarraju et al., 2010; Ryan & DeJong, 1998).

To understand the impact faculty have on college student alcohol use five questions were developed and administered in conjunction with the 2014 NDCORE survey. Three questions were utilized to determine what faculty communication related to alcohol use students recall and three questions sought to understand the value students place on faculty expectations and communication related to students' alcohol use was measured. Differences in students' experiences and perceptions was examined by specific demographic characteristics. This chapter describes the procedures and methods applied to accomplish this study. The research questions, study population, consent process, instrumentation, data collection procedures, variables, research design and methods of data analysis are discussed.

Research Design

This study utilized a cross-sectional quantitative survey design to assess what faculty communication related to alcohol use current students' recall, the frequency in which they recall faculty members: making light-hearted comments about alcohol, talking about the risks associated with alcohol use and discussing their expectations that students limit or control their

use of alcohol and exploring what value students place on faculty expectations and communication related to students' alcohol use (Lavrakas, 2008). The quantitative method was chosen due to the availability of the NDCORE survey as an established way to gather alcohol and other drug use and perception information from NDUS students. Demographic data including gender, age, drinking level, student classification and campus type were used to determine if these variables impacted students' experiences and perceptions.

Research Questions

In order to achieve the aforementioned purpose the primary research question that guided this study was:

RQ1: Do faculty members have an impact on college student alcohol use?

The primary research question (RQ1) will be understood through examining the specific aspects outlined in the following sub-questions:

RQ1a: What communication related to alcohol use do students recall having with faculty?

RQ1b: Are there differences in students' experiences related to the communication they recall according to demographic characteristics?

RQ1c: What value do students place on faculty communication related to students' alcohol use?

RQ1d: Are there differences in students' assignment of value on faculty communication according to demographic characteristics?

RQ1e: Do demographic characteristics, the value students place on faculty communication, and the communication between faculty and students impact the number of drinks consumed per week?

Population

The population for this study consisted of 41,201 undergraduate students enrolled at a college or university in the North Dakota University System (NDUS). The NDUS is composed of 11 unique institutions of higher education, including two doctoral-granting institutions, two-master's-granting institutions, two universities that offer baccalaureate degrees and five campuses that offer associate and trade/technical degrees (North Dakota University System, 2014). The population was 79.8% ($N=32,884$) traditional-aged (ages 18-24), 81.9% ($n = 33,769$) white. The breakout of classification was 35.6% ($n = 14,653$) freshman, 25.5% ($n = 10,497$) sophomores, 14.4% ($n = 5,932$) juniors, and 24.6% ($n = 10,119$) seniors (North Dakota University System, 2014).

Sample

To gather a representative sample of the population for this research, a stratified random sampling procedure was utilized for each institution based on enrollment in each academic college (4-year universities) or division (2-year colleges). The sample was drawn from a current list of classes obtained from each campus including pertinent information about the class and the number of students enrolled. All classes were then sorted by academic college or division (strata) and randomly chosen based on classification (freshman, sophomore, junior, senior). To assure that the classes the randomly selected sample would provide at least the minimum number of participants needed in each area, the research team examined the number of students enrolled in each class and randomly selected more classes, if necessary. Also, to allow for non-participating faculty members and students and to ensure that the minimum number of surveys was attained, the research team also randomly selected 5% over the needed minimum number.

To determine the sufficiency of the sample size by each campus Krejcie and Morgan's (1970) formula was utilized. The sample size varied for each campus, due to the varied enrollment. The sample size used to determine the number of students at each campus was based on the 2013-2014 official campus enrollment numbers (41,201). The suggested total sample size was 3,302 for a 95% confidence level. The number of surveys completed and returned to the Core Institute is reported in Table 1.

All NDUS undergraduate students had the opportunity to be included in this study through a stratified random sampling procedure. In total 3,986 students provided consent and completed the NDCORE (Table 1). Participant data was reviewed and cleaned to remove outliers as needed. Related to reported age, those students who are under 18 ($n=18$) were removed and a dichotomous variable was created for those under 21 and those older than 21. Those participants who reported weighing 69 pounds or less or more than 500 pounds were removed prior to the data set being made available to researcher ($n=50$). For the variable average number of drinks per week outliers were removed; since there are over 80 cases with valid data for this variable, the criterion for identifying an outlier is $SD = \pm 3.0$ (29 or more drinks). Eighty-six cases had a z-score value outside this range and were removed. Finally, participants who identified themselves as graduate students, non-degree seeking, or other students were excluded from the final dataset, leaving a total of 3,717 cases.

Description of Respondents

The students participating in this study were undergraduate students from the 11 NDUS institutions Fall 2014. The independent variables used in this study included gender, age, student classification, drinking level and institutional type which are described below.

Gender

Of those participating; 51.9% identified as female and 48.1% were male.

Age

The mean age of students participating was 20.45 (SD=3.6) with 93.4% of students between the ages of 18-24. The population included 79.8% students between the ages of 18-24.

Student Classification

More than a third (39%) of respondents reported being a freshman, 24.8% sophomore, 17.7% indicated being classified as a junior and 18.6% reported being a senior. This was similar to the NDUS population which was composed of 35.6% freshman, 25.5% sophomores, 14.4% juniors, and 24.6% seniors (North Dakota University System, 2014).

Table 1

Population and sample overview

	N	Required sample size for 95% confidence	Completed surveys sent to Core
Bismarck State College	3,212	346	353
Dakota College at Bottineau	465	217	167
Dickinson State University	1,231	297	271
Lake Region State College	707	248	269
Mayville State University	784	260	205
Minot State University	2,848	338	358
North Dakota State College of Science	2,067	327	360
North Dakota State University	14,005	375	858 ^a
University of North Dakota	14,197	375	840
Valley City State University	1,093	285	390
Williston State College	575	234	203
Total	41,184	3,302	3,986 ^a

^a 288 NDSU surveys of the 858 were lost in transit from NDSU to the CORE institute

Drinking Level

The average number of drinks consumed per week by participants is 3.5 (SD=5.1). Most (66.9%) used alcohol in the 30 days prior to completing the survey.

Institutional Type

Of the 3,717 remaining participants 33.1% reported attending one of the five 2-year colleges, 31.2% attended one of the four regional 4-year institutions, and 35.8% attended one of the two doctoral-granting institutions. This was slightly different than the population characteristics of 19% attending one of the five 2-year colleges, 15.1% attending one of the four regional 4-year institutions, and 65.8% attending one of the two doctoral-granting institutions.

Other Demographics

Most in the sample (97.2%) indicated they attended college full-time. A majority worked part-time (53%) and 49% reported residing on-campus. Additionally, the sample closely emulated the population regarding race composition: 84.8% identified as White (non-Hispanic) 5.6% Black (non-Hispanic), 2.4% Asian/Pacific Islander, 2.2% American Indian/Alaska Native, 3% Hispanic and 2.1% other.

Instrument

The NDCORE was originally developed collaboratively between the ND Higher Education Consortium for Substance Abuse Prevention (NDHECSAP), an initiative of the NDUS, and the Core Institute of Southern Illinois University Carbondale, which self-identifies as the most comprehensive alcohol and other drug survey for higher education (Core Institute at Southern Illinois University, 2015). Prior to this administration, the NDCORE has been administered at each of the 11 NDUS institutions on five occasions by the NDHECSAP. The NDCORE is utilized by the NDHECSAP biennially to gather data regarding NDUS student

alcohol and other drug use behaviors and perceptions. To efficiently collect data for this study, five additional questions were added on to the established North Dakota CORE Alcohol and Other Drug Survey (NDCORE), due to the design of the survey instrument it only allowed for five additional questions.

NDCORE

The 2014 NDCORE survey contained 35 standardized questions regarding student demographics, alcohol consumption, illicit drug use, participant perceptions of alcohol and other drug use and policy awareness; response options and question structure varied depending on item (APPENDIX A). The 2014 NDCORE answer form allowed for only 15 additional questions to be asked, the NDHECSAP required 10 of the additional questions be added by all 11 institutions, three of those were items aimed to calculate the participants' peak blood alcohol content (weight, peak number of drinks consumed, hours consuming peak number of drinks), two intended to understand participants' experiences related to marijuana use, one regarding parent expectations about alcohol use and five questions specific to the current study. The remaining questions were specifically chosen/created by each institution or left blank.

Demographics. Demographic information included age, gender, student classification, and average number of drinks per week; all of which were part of the NDCORE. Participants were asked to fill in their age and complete the corresponding circles. Participants were asked their birth sex, labeled gender, with two choices of male or female. Participants were asked to choose their student classification from seven options: freshman, sophomore, junior, senior, Grad/professional, Not seeking a degree, Other. Participants were asked to enter the average number of drinks consumed in a week and complete the corresponding circles; drink was defined as “A bottle of beer, a glass of wine, a wine cooler, a shot glass of liquor, or a mixed drink.” The

institution the participant attended was populated and this variable was collapsed into a dichotomous variable based on whether the institution was two-year or four-year institution (two-year, four-year).

Faculty Impact Questions

The additional questions added to the 2014 NDCORE for this study were aimed to determine whether faculty members have an impact on college student alcohol use. The factors that influence college student behaviors regarding alcohol use are multifaceted, including the college environment and the influential individuals in that environment including peers (Borsari & Carey, 2006; Weitzman, Nelson, & Wechsler, 2003) and parents (Abar, Abar, & Turrisi, 2009; Cosden, Gauthier, & Hughes, 2013; Wood, Read, Mitchell, & Brand, 2004). The literature has indicated that faculty members impact college students' academic development, motivation, and achievement (Komarraju, Musulkin, & Bhattacharya, 2010; Martin, 2000; Pascarella & Terenzini, 2005) and students typically identify faculty as an important factor in their college experience (Komarraju et al., 2010). However, the impact faculty members have on college student alcohol use is not clear (Heyne, 1984; Perkins, 2002; Ryan & DeJong, 1998). The questions developed to understand faculty impact on student alcohol use are grounded in Social Learning Theory and Social Cognitive Theory. The SLT, and the resulting SCT, explains how social experiences influence individual's behavior and development through various social experiences such as verbal discussions, discipline encounters, and exposure to models (Grusec, 1992).

The questions and response options for the five faculty impact questions were reviewed by graduate faculty members, the doctoral supervisory committee guiding this study, and undergraduate students from a two-year college and a four-year institution. Feedback was also

solicited from the NDHECSAP membership during a regularly scheduled meeting. Edits were made to the questions based on the recommendations from these various groups, with the most drastic modification changing the term ‘faculty’ to ‘instructor’ in all questions related to this study to be more inclusive of the varied terms used by students for teachers, especially at the 2-year colleges. Additionally, since the five questions were part of the 15 possible additional questions (APPENDIX B), the campus name was inserted in to each question prior to the word instructor (i.e. “How frequently do you hear NDSCS instructors making light-hearted comments about alcohol use?”).

Faculty Communication. Three of the five questions were developed to better understand what faculty communication related to alcohol use students recall. The first item to measure faculty communication was focused on understanding the context of the communication. The item: “How frequently do you hear [CAMPUS] instructors making light-hearted comments about alcohol use?” was modeled after an item on the Alcohol Communication Behavior Scale which aimed to understand faculty communication behaviors regarding student alcohol use created by Beseler Thompson and Vangness Frisch (2014). The second item regarding communication was: “How frequently do you hear [CAMPUS] instructors talk about the risks associated with alcohol use?” and the third item was “How frequently do you hear [CAMPUS] instructors talk about their expectations that students limit or control their alcohol use?” A five point response scale was used for all three items (0 = Daily (one or more times per day), 1 = Often (at least once per week), 2 = Occasionally (less than once per week), 3 = Rarely (less than once per month), 4 = Never).

Faculty value. Two items were developed to determine what value students place on faculty expectations and communication related to students’ alcohol use. The value students

place on faculty expectations was measured by this item “How likely would you be to change your alcohol use behavior based on an instructor’s expectation?” a six-item response option was given for this item (0 = Very Unlikely, 1 = Somewhat Unlikely, 2 = Unlikely, 3 = Likely, 4 = Somewhat Likely, 5 = Very Likely). Participants were also asked “How effective do you consider [CAMPUS] instructors’ expectations as a way of limiting or controlling your alcohol use? (0 = Very Effective, 1 = Somewhat Effective, 2 = Not Effective).

Procedures

All procedures were approved by the North Dakota State University, University of North Dakota and Minot State University’s Institutional Review Boards (IRB) (APPENDIX C); the other 8 institutions did not require IRB approval. However, participant protection measures were followed consistently at each data collection site. Risk to individual participants was minimal due to the anonymous nature of the survey. At each institution one NDHECSAP member was identified as the campus representative. The NDHECSAP campus representatives assisted with obtaining IRB approval (as needed); and was responsible for facilitating and organizing the data collection on their campus which included the initial contact to faculty, the facilitation of data collection and return of completed surveys.

Once the final sample was determined, e-mails were sent by NDHECSAP campus representatives to those faculty members whose classes were chosen, explaining the importance of the survey and requesting their participation. Participating faculty members selected a convenient class meeting for the survey administration before November 15, 2014 and a member of the campus research team administered the survey in the assigned class location. It was requested that faculty members allow 30 minutes of class time for administration of the survey.

The research team member read a script to students informing them about the nature of the survey. This script indicated that the survey was anonymous, voluntary, and no negative consequences would be experienced for non-participation. Students who already completed the survey in another class were asked to not participate again and students under the age of 18 were asked not to complete the survey again. An informed consent cover sheet (APPENDIX D) was then provided to the students that briefly described the study and students were asked whether they wish to participate in the study. Students indicated their willingness to participate by completing the paper/pencil survey. Students choosing not to participate were asked to work on classwork during the time other students completed the survey and were asked to turn in the blank survey.

Upon completion, surveys were gathered from students by the research team. Once an adequate number of surveys satisfying the sampling criteria was obtained for each institution, surveys were then counted and sent to the Core Institute at Southern Illinois University for scanning, input, and initial analysis. Table 1 provides an overview of the number of surveys sent to the Core Institute from each NDUS institution. It was discovered immediately after initial analysis was received back from the Core Institute that 288 NDSU surveys of the 858 that were completed were lost in transit from NDSU to the Core Institute. Of the 570 NDSU surveys that were received, 15 surveys were excluded because participants were graduate or non-degree seeking students resulting a sample from NDSU of 555.

CHAPTER 4. RESULTS

The purpose of the current study was to begin to understand if faculty members impact college student alcohol use. Specifically, the current research sought to examine what students recall about faculty communication related to alcohol use, and the value students place on faculty expectations and communication related to their alcohol use to provide an initial understanding of this complex issue. The North Dakota CORE Alcohol and Other Drug Survey (NDCORE) was utilized to gather the data needed for this research in Fall 2014 and five additional questions were added to address the research questions for the current study. The data was reviewed and cleaned to remove outliers as needed. This chapter will explain the statistical analyses performed and report the findings aimed to answer the primary research question.

Research Questions

The primary research question that guided this study was:

RQ1: Do faculty members have an impact on college student alcohol use?

The primary research question (RQ1) will be understood through examining the specific aspects outlined in the following sub-questions:

RQ1_a: What communication related to alcohol use do students recall having with faculty?

RQ1_b: Are there differences in students' experiences related to the communication they recall according to demographic characteristics?

RQ1_c: What value do students place on faculty communication related to students' alcohol use?

RQ1_d: Are there differences in students' assignment of value on faculty communication according to demographic characteristics?

RQ1_e: Do demographic characteristics, the value students place on faculty communication, and the communication between faculty and students impact the number of drinks consumed per week?

Data Analysis

Once an adequate number of surveys satisfying the sampling criteria was obtained for each institution, surveys were then sent to the Core Institute at Southern Illinois University for scanning, input, and initial analysis. The raw data was electronically provided back to the research team from the Core Institute for statistical analysis and interpretation. At all times data was stored securely with no identifying information from participants. Raw data was transferred into SPSS v.23 which was utilized to analyze the data for this research.

Data analysis included descriptive statistics to describe the population and major variables of interest including student classification, age, gender, average number of drinks per week, and institution type. Frequencies and percentages were calculated to determine if participants had experienced instructors: making light-hearted comments about alcohol use, talking about the risks associated with alcohol use, and talking about their expectations that students limit or control their alcohol use. Additionally, frequencies were calculated to understand if participants felt their instructors' expectations would change their alcohol use behaviors and if participants' perceived their instructors' expectations are an effective way to limit or control their alcohol use. Due to limited prior research regarding this topic it was essential to understand the frequency in which these behaviors were occurring.

Multivariate analyses were also conducted regarding RQ_b and RQ_d, specifically Ordinal logistic regression, to determine if there were any significant differences in instructors' communication and the effectiveness of instructors' expectations among the five unique

independent variables (Classification, Age, Gender, Average number of drinks per week, and type of institution). Ordinal logistic regression was used because it allows prediction of an ordinal dependent variable given one or more independent variables (Agresti, 2010; Agresti, 2007). Additionally, ordinal logistic regression requires the dependent variable be measured at the ordinal level and for one or more independent variable that are continuous, ordinal or categorical all of which aligned with the current research (Agresti, 2010). For RQ1_e hierarchical multiple regression was utilized. This method was chosen because it allows adding sets of variables into the regression equation, allowing for the determination of how much each set of variables uniquely adds to the prediction of the dependent variable (Tabachnick & Fidell, 2013).

Research Question 1_a

Research question 1_a ‘What communication related to alcohol use do students recall having with faculty?’ aimed to better understand what communication related to alcohol use students recalled having with faculty. Descriptive statistics were run to determine the frequency in which participants recalled faculty members making light-hearted comments about alcohol, talking about the risks associated with alcohol use, discussing their expectations that students limit or control their use of alcohol.

Participants were asked “How frequently do you hear [CAMPUS] instructors making light-hearted comments about alcohol use?” A 5 point scale was used (0 = Daily (one or more times per day, 1 = Often (at least once per week), 2 = Occasionally (less than once per week), 3 = Rarely (less than once per month), 4 = Never). The same scale was used for the two other questions regarding communication, “How frequently do you hear [CAMPUS] instructors talk about the risks associated with alcohol?” and “How frequently do you hear [CAMPUS] instructors talk about their expectations that students link of control their use?” Of the 3,473

students responding 1,806 (51.9%) indicated that that they have rarely or never heard their instructors making light-hearted comments about alcohol use. Over half (55.3%, $M = 2.51$) report that they have never or rarely hear their instructors talk about the risks associated with alcohol use. While 63.2% ($M= 2.72$) indicated that they rarely or never have heard their instructors talk about their expectations that they limit or control their alcohol use. Table 2 provides means and standard deviations for the three questions related to faculty communication.

Table 2

Means on alcohol-related communication students recall having with faculty

Question	<i>M</i>	<i>SD</i>	<i>n</i>
Instructors making light-hearted comments about alcohol use	2.39	1.345	3,473
Instructors talk about the risks associated with alcohol	2.51	1.288	3,463
Instructors talk about their expectations regarding alcohol use	2.72	1.354	3,426

Note. 1 = Often (at least once per week), 2 = Occasionally (less than once per week), 3 = Rarely (less than once per month), 4 = Never

Research Question 1_b

Research question 1_b ‘Are there difference in students’ experiences related to the communication they recall according to demographic characteristics’ intended to better understand the impact participants’ demographic characteristics had on the frequency in which participants recalled faculty members communicating about alcohol use. Cumulative odds ordinal logistic regression with proportional odds were run on the three questions related to instructor communication (faculty members making light-hearted comments about alcohol, faculty talking about the risks associated with alcohol use, faculty discussing their expectations that students limit or control their use of alcohol).

Instructor made light-hearted comments. A cumulative odds ordinal logistic regression with proportional odds was run to determine the effect of year in college, age, gender, average number of drinks per week, and attending a two year or four-year institution, had on frequency of hearing instructors make light-hearted comments about alcohol use. The Pearson goodness-of-fit test indicated that the model was a good fit to the observed data $\chi^2(3084) = 3319.004, p > .001$. Age had a statistically significant effect on the prediction of whether participants reported having heard instructors make light-hearted comments, Wald $\chi^2(1) = 8.567, p = .003$. An increase in age (expressed in years) was associated with a decreased frequency of hearing instructors make light-hearted comment, with an odds ratio of .970, 95% CI [.950, .990], Wald $\chi^2(1) = 8.567, p = .003$. Indicating that for every year in age the likelihood of having instructors make light-hearted comments decreases by about 3%. Gender also had a statistically significant effect on the prediction of whether participants reported having heard instructors make light-hearted comments, Wald $\chi^2(1) = 8.397, p = .004$. Being female was associated with a decreased frequency of hearing instructors make light hearted comments, with an odds ratio of .656, 95% CI [.493, .873], Wald $\chi^2(1) = 8.397, p = .004$. Showing that the odds of hearing instructors make light hearted comments decreases by a factor of about two-thirds if you are female.

Instructor talked about alcohol risks. A cumulative odds ordinal logistic regression with proportional odds was run to determine the effect of year in college, age, gender, average number of drinks per week, and attending a two year or four-year institution, had on hearing instructors talk about the risks associated with alcohol use. The Pearson goodness-of-fit test indicated that the model was a good fit to the observed data $\chi^2(3072) = 3200.921, p > .001$. Gender had a statistically significant effect on the prediction of whether participants reported having heard instructors talk about risks associated with alcohol use, Wald $\chi^2(1) = 15.007, p = .000$. Being

female was associated with a decrease frequency of hearing instructors talk about the risks associated with alcohol use, with an odds ratio of .568, 95% CI [.425, .755], Wald $\chi^2(1) = 15.007, p = .000$. Showing that the odds of hearing instructors talk about alcohol risk decreases by 57% if you are female.

Table 3

Summary of ordinal logistic regression analysis predicting instructor making light-hearted comments

Variable	<i>B</i>	<i>SE</i>	<i>OR</i>	95% CI	Wald Statistic	<i>p</i>
Classification	-.103	.0843	.902	[.765, 1.065]	1.479	.224
Age	-.030	.0104	.970	[.950, .990]	8.567	.003
Gender	-.422	.1457	.656	[.493, .873]	8.397	.004
Number of Drinks	.008	.0063	1.008	[.996, 1.020]	1.799	.180
Institution Type	-.135	.1695	.873	[.626, 1.218]	.636	.425

Note. CI = confidence interval for odds ratio (*OR*). Classification coded as 1 = Freshman, 2 = Sophomore, 3 = Junior, 4 = Senior. Age continuous variable range 12-66. Gender coded as 1=Male, 2=Female, 3= Unknown. Number of Drinks per week continuous variable range 0-28. Institution Type coded as 1=2-year, 2=4-year.

Due to the significant interaction a follow-up test was warranted and was conducted to better understand the impact gender and institution type had on the likelihood of hearing instructors talk about the risks associated with alcohol use. At two-year institutions being female was associated with an decreased likelihood of hearing instructors talk about the risks associated with alcohol use, with an odds ratio of 1.649, 95% CI [1.322, 2.058], Wald $\chi^2(1) = 19.636, p = .000$. The follow-up test also indicated that gender did not have a significant effect at four-year institutions on the likelihood of hearing instructors talk about the risk associated with alcohol use.

Table 4

Summary of ordinal logistic regression analysis predicting instructor talking about alcohol risks

Variable	<i>B</i>	<i>SE</i>	<i>OR</i>	95% CI	Wald Statistic	<i>p</i>
Classification	-1.48	.0843	.863	[.731, 1.017]	3.078	.079
Age	.002	.0102	1.002	[.981, 1.022]	.028	.866
Gender	-.568	.1465	.567	[.425, .755]	15.007	.000
Number of Drinks	-.007	.0063	.993	[.981, 1.006]	1.180	.277
Institution Type	-.286	.1700	.751	[.538, 1.049]	2.822	.093

Note. CI = confidence interval for odds ratio (*OR*). Classification coded as 1 = Freshman, 2 = Sophomore, 3 = Junior, 4 = Senior. Age continuous variable range 12-66. Gender coded as 1=Male, 2=Female, 3= Unknown. Number of Drinks per week continuous variable range 0-28. Institution Type coded as 1=2-year, 2=4-year.

Instructor talked about alcohol expectations. A cumulative odds ordinal logistic regression with proportional odds was run to determine the effect of year in college, age, gender, average number of drinks per week, and attending a two year or four-year institution, had on the frequency of hearing instructors talk about their expectations regarding alcohol use. The Pearson goodness-of-fit test indicated that the model was a good fit to the observed data $\chi^2(3036) = 3073.084, p > .001$.

Student classification had a statistically significant effect on the prediction of whether participants report having heard instructors talk about their expectations related to alcohol use, Wald $\chi^2(1) = 3.860, p = .049$. A higher student classification was associated with a decreased frequency of hearing instructors talk about their expectations regarding alcohol use, with an odds ratio of .845, 95% CI [.715, 1.000], Wald $\chi^2(1) = 3.860, p = .049$. Indicating that for every increase in classification the likelihood of hearing instructors talk about their expectations regarding alcohol use decreases by about 15%. Gender had a statistically significant effect on the

prediction of whether participants report having heard instructors talk about their expectations related to alcohol use, Wald $\chi^2(1) = 16.079, p = .000$. Being female was associated with a decrease frequency of hearing instructors talk about their expectations regarding alcohol use, with an odds ratio of -.597, 95% CI [.411, .737], Wald $\chi^2(1) = 16.079, p = .000$. Showing that the odds of hearing instructors talk about their expectations regarding alcohol use decreases by 60% if you are female.

Additionally, the type of institution the participant was enrolled at (two-year vs. four-year) had a statistically significant effect on the prediction of whether participants report having heard instructors talk about their expectations related to alcohol use, Wald $\chi^2(1) = 6.080, p = .014$. Being from a two-year institution was associated with an increased frequency of hearing instructors talk about the risks associated with alcohol use, with an odds ratio of .654, 95% CI [.466, .916], Wald $\chi^2(1) = 6.080, p = .014$. Indicating that the odds of having heard instructors talk about their expectations related to alcohol use increase by a factor of about two-thirds if you are from a two-year institution.

Due to the significant interaction a follow-up test was warranted and were conducted to further examine the impact gender and institution type had on the frequency of hearing instructors talk about their expectations regarding alcohol use. At two-year institutions being male was associated with an increased frequency of hearing instructors talk about their expectations regarding alcohol use 1.741, 95% CI [1.393, 2.175], Wald $\chi^2(1) = 23.78, p = .000$. The same was found for four-year institutions; being male was associated with an increased frequency of hearing instructors talk about their expectations regarding alcohol use 1.287, 95% CI [1.096, 1.511], Wald $\chi^2(1) = 9.478, p = .002$.

Table 5

Summary of ordinal logistic regression analysis predicting instructor talking about alcohol expectations

Variable	<i>B</i>	<i>SE</i>	<i>OR</i>	95% CI	Wald Statistic	<i>p</i>
Classification	-.168	.0856	.845	[.715, 1.000]	3.860	.049
Age	-.005	.0108	.995	[.974, 1.016]	.239	.625
Gender	-.597	1.488	.551	[.411, .737]	16.079	.000
Number of Drinks	-.000	.0065	1.000	[.988, 1.013]	.004	.953
Institution Type	-.425	.1723	.654	[.466, .916]	6.080	.014

Note. CI = confidence interval for odds ratio (*OR*). Classification coded as 1 = Freshman, 2 = Sophomore, 3 = Junior, 4 = Senior. Age continuous variable range 12-66. Gender coded as 1=Male, 2=Female, 3= Unknown. Number of Drinks per week continuous variable range 0-28. Institution Type coded as 1=2-year, 2=4-year.

Research Question 1c

Research question 1c ‘what value do students place on faculty communication related to students’ alcohol use?’ measured how likely students would change their behavior based on their instructors’ expectations and how effective students perceive their instructors’ expectations as a way to limit or control their alcohol use. Participants were asked to indicate the likelihood that they would change their alcohol use behaviors based on an instructor’s expectations on a six point scale (0 = Very Unlikely, 1 = Somewhat Unlikely, 2 = Unlikely, 3 = Likely, 4 = Somewhat Likely, 5 = Very Likely). The majority (75.9%) of participants indicated that they were not likely to change their alcohol use behavior based on their instructor’s expectations ($M=1.34$). Additionally, participants were asked to consider how effective they considered instructor’s expectations as a way of limiting or controlling their use on a three point scale (0 = Very Effective, 1 = Somewhat Effective, 2 = Not Effective). Over half (52.2%) indicated that they

thought an instructor's expectations were not an effective way of limiting or controlling their alcohol use ($M=1.39$).

Research Question 1a

Research question 1a 'are there difference in students' assignment of value on faculty communication according to demographic characteristics?' sought to better understand the impact participants' demographic characteristics had on the value they placed on faculty communication regarding alcohol use. Cumulative odds ordinal logistic regression with proportional odds were run on the two questions related to the value students' assigned to faculty communication (likelihood students would change their behavior based on instructors' expectations, how effective they perceive instructors expectations as a way to limit or control their alcohol use).

Likelihood to change behavior based on instructors' expectations. A cumulative odds ordinal logistic regression with proportional odds was run to determine the effect of student classification, age, gender, average number of drinks per week, and attending a two-year or four-year institution, had on the likelihood students would change their behavior based on instructors expectations. The Pearson goodness-of-fit test indicated that the model was a good fit to the observed data $\chi^2(3797) = 4057.967, p > .001$.

Age had a statistically significant effect on the likelihood participants reported that they would change their behavior based on instructors' expectations, Wald $\chi^2(1) = 4.474, p = .034$. An increase in age (expressed in years) was associated with a decreased likelihood of changing behavior based on instructors' expectations, with an odds ratio of .976, 95% CI [.955, .998], Wald $\chi^2(1) = 4.474, p = .034$. The average number of drinks reported per week also had a statistically significant effect on the likelihood participants reported that they would change their

behavior based on instructors' expectations Wald $\chi^2(1) = 74.874, p = .000$. An increase in the number of drinks was associated with a decreased likelihood of changing behavior based on instructors' expectations, with an odds ratio of .939, 95% CI [.926, .953], Wald $\chi^2(1) = 74.874, p = .000$. For each additional drink reported, the likely of changing behavior based on instructor expectations decreases by approximately 6%.

Table 6

Summary of ordinal logistic regression analysis predicting likelihood to change alcohol use due to instructors' expectations

Variable	<i>B</i>	<i>SE</i>	<i>OR</i>	95% CI	Wald Statistic	<i>p</i>
Classification	.039	.0881	1.039	[.874, 1.235]	.192	.661
Age	-.024	.0114	.976	[.955, .998]	4.474	.034
Gender	.226	.1527	1.254	[.930, 1.692]	2.195	.138
Number of Drinks	-.063	.0073	.939	[.926, .953]	74.874	.000
Institution Type	.010	.1774	1.010	[.713, 1.430]	.003	.957

Note. CI = confidence interval for odds ratio (*OR*). Classification coded as 1 = Freshman, 2 = Sophomore, 3 = Junior, 4 = Senior. Age continuous variable range 12-66. Gender coded as 1=Male, 2=Female, 3= Unknown. Number of Drinks per week continuous variable range 0-28. Institution Type coded as 1=2-year, 2=4-year.

Effectiveness of instructors' expectations as a way of limiting or controlling alcohol use.

A cumulative odds ordinal logistic regression with proportional odds was run to determine the effect of student classification, age, gender, average number of drinks per week, and attending a two-year or four-year institution, had on how effective students perceived their instructors expectations as a way of limiting or controlling their alcohol use. The Pearson goodness-of-fit test indicated that the model was a good fit to the observed data $\chi^2 (1486) = 1616.794, p > .001$.

Gender had a statistically significant effect on the likelihood of whether participants report instructors' expectations as an effective way to limit or control their alcohol use, Wald $\chi^2(1) = 5.732, p = .017$. Being male was associated with an increased likelihood of reporting instructors' expectations as an effective way to limit or control their use, with an odds ratio of .680, 95% CI [.496, .933], Wald $\chi^2(1) = 5.732, p = .017$. Being female was associated with a decreased likelihood of reporting instructors' expectations as an effective way to limit or control their alcohol use by approximately 32%. The average number of drinks reported per week had a significant effect on the likelihood of participants reporting instructors' expectations as an effective way to limit or control their alcohol use, Wald $\chi^2(1) = 45.487, p = .000$. An increase in the number of drinks was associated with a decreased likelihood of participants reporting instructors' expectations as an effective way to limit or control their alcohol use, with an odds ratio of .951, 95% CI [.936, .964], Wald $\chi^2(1) = 45.487, p = .000$. For each additional drink it decreased the likelihood of reporting instructors' expectations as an effective way to limit or control their alcohol use by approximately 5 percent.

Due to the significant interaction a follow-up test was warranted and was conducted to better understand the impact gender and institution type had on the likelihood of whether participants report instructors' expectations as an effective way to limit or control their alcohol use. At two-year institutions being male was associated with increased likelihood of reporting instructors' expectations as an effective way to limit or control their alcohol use, with an odds ratio of 1.472, 95% CI [1.160, 1.868], Wald $\chi^2(1) = 10.141, p = .001$. Also, during follow-up tests it was revealed that gender did not have a significant effect at four-year institutions on the likelihood of whether participants report instructors' expectations as an effective way to limit or control their alcohol use.

Table 7

Summary of ordinal logistic regression analysis predicting effectiveness of instructors' expectations as a way of limiting or controlling alcohol use

Variable	<i>B</i>	<i>SE</i>	<i>OR</i>	95% CI	Wald Statistic	<i>p</i>
Classification	-.121	.928	.886	[.738, 1.063]	1.699	.192
Age	.012	.0118	1.012	[.988, 1.035]	.969	.325
Gender	-.385	.1609	.680	[.496, .933]	5.732	.017
Number of Drinks	-.051	.0075	.951	[.936, .964]	45.487	.000
Institution Type	-.278	.1860	.757	[.526, 1.090]	2.228	.136

Note. CI = confidence interval for odds ratio (*OR*). Classification coded as 1 = Freshman, 2 = Sophomore, 3 = Junior, 4 = Senior. Age continuous variable range 12-66. Gender coded as 1=Male, 2=Female, 3= Unknown. Number of Drinks per week continuous variable range 0-28. Institution Type coded as 1=2-year, 2=4-year.

Research Question 1e

A hierarchical stepwise regression was conducted to determine if the addition of the value group and the communication group of independent variables improved the prediction of the number of drinks per week over and above the demographic group of independent variables. The initial hierarchical level of analysis sought to examine the impact of demographic variables on the prediction of number of drinks per week. Analyses indicated that the number of drinks per week did vary as a function of gender, classification, and age for these students (Models 1, 2, and 3). However, institutional type was not a significant predictor on the number of drinks per week at this level, and therefore was not included in the statistical model. The hierarchical addition of the value group to the prediction equation using stepwise analyses indicated that the number of drinks per week varied as a function of both changes due to instructors' expectations and perceived effectiveness of instructors' expectation (Models 4 and 5). Finally, the hierarchical

addition of the communication group to the predication of number of drinks per week using stepwise analyses indicated that instructors talking about alcohol expectations statistically significantly predicted the number of drinks per week (Model 6), though instructors' use of light-hearted comments and instructors discussing alcohol risks were not statistically significant predictors and not included in the statistical model. The final hierarchical model, using demographics, value, and communication to predict the number of drinks was statistically significant, $F(1, 3015) = 103.39, (p < .001)$, accounting for approximately 7% of the variance in the number of drinks per week.

Table 8

Hierarchical regression analysis summary for demographic, communication, and value variables predicting number of drinks per week

Level and predictor variable	<i>B</i>	<i>SE B</i>	β	R^2	ΔR^2	ΔF	<i>p</i>
Level 1							
Gender	-1.75	.185	-0.17	.029	.029	90.32	.000
Classification	.416	.082	0.09	.037	.037	26.00	.000
Age	-0.07	.031	-0.46	.038	.039	5.41	.020
Level 2							
Changes due to instructor's expectations	-0.50	.057	-0.15	.062	.063	77.03	.000
Effectiveness of instructor's expectations	0.517	.133	0.07	.066	.068	15.07	.000
Level 3							
Instructor talked about alcohol expectations	-0.18	.073	-0.05	.068	.070	6.70	.010

Note. Gender coded as 1=Male, 2=Female, 3= Unknown. Classification coded as 1 = Freshman, 2 = Sophomore, 3 = Junior, 4 = Senior. Age continuous variable range 12-66. Level 2 coded as 1 = Often (at least once per week), 2 = Occasionally (less than once per week), 3 = Rarely (less than once per month), 4 = Never. Level 3 coded as 0 = Very Unlikely, 1 = Somewhat Unlikely, 2 = Unlikely, 3 = Likely, 4 = Somewhat Likely, 5 = Very Likely

As noted in the Table 8, the first hierarchical level representing demographic factors accounts for approximately 4% of the variance in the number of drinks per week. According to

Cohen (1988), this is a small effect size. The second hierarchical level representing the value of instructors' expectations concerning alcohol accounts for approximately 3% of the variance in the average number of drinks consumed per week, which is a small effect size (Cohen, 1988). Finally, while statistically significant, the third hierarchical level representing instructors' communication regarding alcohol accounts for approximately .2% of variance in the average number of drinks consumed per week, which is considered insufficient to be practically meaningful (Cohen, 1988).

Summary of Findings

Descriptive results related to faculty communication revealed that more than half of the students never or rarely recall faculty communicating about alcohol. Specifically, a little less than half indicated that they occasionally or often hear instructors make light-hearted comments about alcohol use. While even less indicated they hear their instructors talk about the risks associated with alcohol use and even fewer indicated that their instructors talk about their expectations that students limit or control their alcohol use.

Concerning the value students place on faculty communication, descriptive statistics indicated that most say that they would not change their alcohol use behavior based on their instructors' expectations. Additionally, the majority indicated that an instructor's expectations were not an effective way of limiting or controlling their alcohol use. The descriptive findings indicate that students do not place value on faculty communication regarding their alcohol use.

Multivariate analyses revealed that an increase in age and being female was associated with a decrease in hearing instructors make light-hearted comments about alcohol. Being female was also associated with a decreased likelihood of hearing instructors talk about the risks associated with alcohol use and having heard instructors talk about their expectations regarding

alcohol use. Being a student at a two-year institution and having a lower student classification (e.g. Freshman, Sophomore) was associated with an increased frequency of hearing instructors' talk about alcohol use.

Further investigation through follow-up tests indicated that males at two-year institutions were more likely to have heard instructors talk about the risk associated with alcohol use and report an increased frequency of hearing instructors' talk about their expectations regarding alcohol use; while gender did not have a significant effect at four-year institutions. Being male, regardless of institution type, was associated with an increased frequency of hearing instructors talk about their expectations regarding alcohol use.

Multivariate statistics were also utilized to better understand the impact student classification, age, gender, averaged number of drinks per week, and institution type had on the value students place on faculty communication. It was discovered that both an increase in age and increase in the number of drinks reported per week was associated with a decreased likelihood of changing behavior based on instructors' expectations. Additionally, males had an increased likelihood of reporting instructors' expectations as an effective way to limit or control their use. An increase in the number of drinks per week was associated with a decreased likely of participants reporting instructors' expectations as an effective way to limit or control their alcohol use. Follow-up tests revealed that at two-year institutions being male increased the likelihood of reporting instructors' expectations as an effective way to limit or control their alcohol use, gender did not have a significant effect at four year institutions.

Overall, men at two-year institutions are more likely to report having heard faculty communicate about alcohol use and were also more likely to report instructors' expectations as an effective way to limit or control their alcohol use. The more drinks students report per week

the less effective they report instructors' expectations as a way to limit or control their alcohol use; also an increase in the number of drinks per week decreased the likelihood they would change their behavior based on instructors' expectations.

Finally, when examining the impact demographics, value, and communication had on the number of drinks per week it was found that demographic factors have the most, although small, impact on variance in the number of drinks. The value students place on faculty members' expectations regarding alcohol use also accounts for a small impact on variance in the number of drinks per week. However, there was no significant impact of faculty member communication on the variance in the number of drinks consumed per week.

Chapter four provided an explanation of the statistical analyses performed and reported the findings aimed to answer the primary research question. Chapter five will provide a discussion of the findings; specifically the findings regarding each research question will be further explained and implications for practice and theory will be shared, along with recommendations for future research.

CHAPTER 5. DISCUSSION

High-risk alcohol use in college has shown to be detrimental to college students' success. To better enable colleges to prevent students' alcohol use the influencers on their use must be thoroughly understood. Research indicates that faculty are influential on college students' overall success (Pascarella & Terenzini, 2005; Reason, 2009). It has been assumed that just like peers and parents, faculty members are influential on students' alcohol use. Based on these assumptions it has been strongly recommended that prevention practitioners approach prevention activities from the environmental perspective and incorporate faculty members in prevention efforts in order to reduce college student alcohol use (NIAAA, 2002; U.S. Department of Health and Human Services, 2007). Despite the large body of literature that has established faculty members are influential in college student success, the impact and influence faculty members have on college student alcohol use has not been thoroughly researched (Pascarella & Terenzini, 2005; Perkins, 2002; Reason, 2009; Ryan & DeJong, 1998).

The purpose of the current research was to begin to understand if faculty members impact college student alcohol use. To provide a baseline understanding of this complex issue what students recalled about faculty communication related to alcohol use, and the value students placed on faculty expectations and communication related to their alcohol use was measured. Additionally, the impact demographic characteristics, the value placed on faculty expectations, and the communication regarding alcohol use between faculty and students had on the number of drinks per week was explored.

The primary research question that guided this research was:

RQ1: Do faculty members have an impact on college student alcohol use?

Sub-questions examining specific aspects of communication and value allowed for the baseline understanding of the primary research question:

RQ1_a: What communication related to alcohol use do students recall having with faculty?

RQ1_b: Are there differences in students' experiences related to the communication they recall according to demographic characteristics?

RQ1_c: What value do students place on faculty communication related to students' alcohol use?

RQ1_d: Are there differences in students' assignment of value on faculty communication according to demographic characteristics?

RQ1_e: Do demographic characteristics, the value students place on faculty communication, and the communication between faculty and students impact the number of drinks consumed per week?

Summary of Findings

This research attempted to understand if faculty member have an impact on college student alcohol use. The findings were generated through adding five additional questions to an already existing survey instrument that is utilized on a biennial basis to collect alcohol and other drug perception and use data from students in the North Dakota University System.

Results related to faculty communication regarding alcohol use found that the very few students recalled hearing faculty members make light-hearted comments about alcohol use and even less remembered hearing their instructor discuss their expectation that students limit or control their alcohol use. As students' age increased the likelihood they recalled their faculty member communicate about alcohol decreased. Students that identified as female also had a decreased likelihood of hearing their faculty members discuss the risks and expectations regarding alcohol use. However, those that indicated they were freshman or sophomore students

were more likely to hear faculty members talk about alcohol use. Male students, regardless of what institution type they attended, reported an increased frequency of hearing instructors talk about their expectations regarding alcohol use.

Results also revealed that most students indicated that they would not change their alcohol use behavior based on their instructors' expectations and that instructors' expectations were not an effective way of limiting or control their alcohol use. Increases in age and in the number of drinks consumed per week was indicative with a decreased likelihood of changing behavior based on instructors' expectations. However, males at two-year institutions were more likely to report instructors' expectations as an effective way to limit or control their use.

Finally, it was found that demographic factors had the most, but small, impact on the variance in the number of drinks consumed per week. The value students place on faculty members' expectations regarding alcohol use also narrowly impacted the variance in the number of drinks per week. However, no significant impact was found between faculty member communication and the number of drinks consumed per week.

Chapter 5 will provide a discussion of the findings related to the research question and sub-questions. A summary of findings and conclusions related to the research question will be provided. Implications for practice and Social Learning Theory will be shared, along with a future research recommendations.

Discussion

Results related to communication between faculty members and students regarding alcohol use are foundational. Prior research involving faculty members and college student alcohol use has concentrated on the effectiveness of educational strategies (i.e. curriculum

infusion) and have not examined frequency or effectiveness of faculty communication regarding alcohol (Beseler Thompson & Vangsness Frisch, 2014; Perkins, 2002).

The current research found that most students do not recall faculty communicating about alcohol use (light-hearted comments or discussing risks) and do not remember faculty discussing their expectations that they limit or control their alcohol use. It is not surprising that students do not recall faculty communicating about alcohol use; Beseler Thompson and Vangsness Frisch (2014) found in their research regarding faculty perceptions and communication of college student alcohol use that the majority of faculty members did not engage in proactive communication behaviors about alcohol use with students. Faculty members are not communicating about alcohol use and therefore students do recall them communicating about alcohol use or their expectations related to that use.

There is a presumption that faculty are a critical reference group for students and have a normative influence through communication and other behaviors that impacts student alcohol use decisions (NIAAA, 2002; Perkins, 2002; U.S. Department of Health and Human Services, 2007). The findings in the current research are contradictory to this presumption, the majority of students indicated that they do not place value on faculty members' expectations related to alcohol use and most do not consider their faculty members expectations as a way of limiting or controlling their alcohol use. The current research also revealed that students reported a decreased likelihood of changing their alcohol use behavior based on instructors' expectations as their age increased and as the number of drinks the consume per week increases. However, males at two-year institutions were more likely to report instructors' expectations as an effective way to limit or control their alcohol use.

The current research also found a small effect on the number of drinks per week based on demographic factors and value of instructors' expectations regarding alcohol use. The effect was small; however, it should be noted that faculty members' expectations could decrease the number of drinks consumed per week. Faculty members' communication regarding alcohol did not account for any significant variance in the number of drinks. These findings align with the SCT, which establishes that individuals' behavior is not only impacted by environmental and behavior, but also their own personal determinants (Bandura, 2001); essentially, an individual's cognitive, affective and biological characteristics (e.g. demographics) impact behavior as much as modeling and environmental characteristics.

Implications

Although most students do not recall faculty members communicating about alcohol use, it should be noted that males at two-year institutions are more likely to recall hearing faculty communicate about alcohol use and place value on that communication. Specifically, the odds of having heard instructors talk about their expectations related to alcohol use increases by about two-thirds if students report being from a two-year institution. Additionally, males at two-year institutions reported an increased likelihood of reporting faculty expectations as an effective way to limit or control their alcohol use. This could be due to a variety of factors, one being that two-year campuses are more likely to have cohort-based technical programs in which students are typically interacting with the same faculty members for the majority of their academic careers; thus, establishing a deeper relationship versus students at a four-year college that may only interact with instructors at one time point during their entire academic career. Additionally, these cohort-based academic programs are typically in the trade and technical areas which tend to

enroll a higher proportion of male students – which could explain why males are more likely to recall alcohol-related communication.

Females are less likely to report hearing faculty members communicate about alcohol. This could be explained through prior research that indicates faculty members misperceive the quantity and frequency of college student alcohol use (Beseler Thompson & Vangness Frisch, 2014), and these misperceptions could carry through to their communication behaviors. Male and female college student drinking is comparable; however, there is misperception that males consume alcohol in higher risk ways than females (Hoeppner, Paskausky, Jackson, & Barnett, 2013; LaBrie et al., 2007). Faculty members that communicate about alcohol use with students may direct that communication toward males due to their misperception that they drink heavier and more frequently.

Implications for Theory

Social Learning Theory (SLT) establishes that individuals learn their behavior through social experiences such as verbal discussions, discipline encounters, and exposure to models (Grusec, 1992; Ward & Gryczynski, 2009). Specifically, SLT enables the understanding that college students' alcohol use is influenced by their social experiences involving drinking and drinking behaviors, and through communications by those that are influential in their life about drinking (Abar et al., 2011; LaBrie, Huchting, Pedersen & Hummer, 2007).

The current research indicates that most students do not recall faculty members communicating about alcohol use, while also showing a weak impact regarding the value faculty member expectations have on the number of drinks consumed per week. Faculty members have been shown to be influential on a students' success in college (Pascarella & Terenzini, 2005; Reason, 2009); and it seems that students slightly place value on faculty expectations related to

alcohol use. The minimal effect that faculty members have on college student alcohol use illustrated in the present research can be further understood through the SLT.

A central tenant of SLT is that behavior is acquired through direct condition and imitation or modeling of others' behavior (Akers et al., 1979); SLT also establishes that an individual's behavior is impacted through verbal communication, but more so through modeling and differential reinforcements, which are rewards and/or punishments, resulting from behavior (Akers et al., 1979).

Although students indicate faculty are influential on their academic decisions and success (Pascarella & Terenzini, 2005; Reason, 2009), this research found that faculty are not influential on college student alcohol use, which could be explained simply because students do not typically interact with faculty in social experience where modeling and discipline encounters could occur. Additionally, faculty-student relationships are often short lived; which does not allow for learning to occur through evaluative definitions (norms, attitude, orientation) (Akers, 1979; 2000). This may explain why there is a difference in the impact faculty members have on college student alcohol use, as compared with peers and parents. Peers and parents are influential on college student alcohol use (Abar, Abar, & Turrisi, 2009; Abar & Turrisi; Borsari & Carey, 2006; Turrisi, Wiersma, & Hughes, 2000); however, those relationships provide opportunity for modeling and differential reinforcements regarding alcohol use to occur. Additionally, students' relationships with peers and parents are ongoing, providing for evaluative definitions to be established and continually reinforced. This provides insight into the reason for the impact peers and parents have and the evidenced lack of influence of faculty members found this research.

The outcomes of the current research examined through the lens of SLT indicate that faculty members may not be an important influencer on college students' alcohol use decisions

and behaviors. The implications for the SLT and the resulting SCT is to possibly further explore the depth and breadth of the relationships and the resulting influence on the learning that occurs related to alcohol use.

Implications for Practice

Alcohol use escalates in college and has been linked to negative consequences among college student including decreased academic performance, legal consequences, and even death (Hingson, Zha, & Weitzman, 2009). It has been strongly recommended that practitioners incorporate and engage faculty members, just like peers and parents, in prevention efforts (NIAAA, 2002; U.S. Department of Health and Human Services, 2007). However, results of this study indicate that engaging faculty members in prevention efforts by relying on them to communicate expectations and low-risk drinking messages to students may not be as effective as suggested. These results provide useful information for higher education prevention professionals, assisting them to make better use of very scarce prevention resources; this information could enable reallocating funds that have been dedicated to engaging faculty members in prevention to other evidenced-based efforts until further research is done in this area.

It was found that males, especially from two-year campuses, reported not only an increase frequency of hearing faculty communicate about alcohol, but indicating that they place value on that communication. This finding points to a possible opportunity for prevention practitioners to enlist the help of faculty members teaching at two-year campuses, in academic programs that have a high proportion of male students, to communicate about and setting alcohol use expectations for students. Since faculty tend to underestimate student alcohol use and most indicate that they have a desire to learn more about helping students make low-risk decisions (Beseler Thompson & Vangness Frisch, 2014), focused training with faculty members could

enhance the impact at two-year campuses with predominately male academic programs.

Demographic factors had the most impact on the variance in the number of drinks. This finding provides support of alcohol use prevention efforts aimed at specific high-risk groups such as white, males that are in Greek organizations (Wechsler et al., 2002). These results also indicate that enlisting the help of faculty with prevention efforts may be more beneficial for smaller institutions or cohort-based academic programs, where the same students and faculty members interact frequently establishing stronger relationships.

The conclusions and implications presented are noteworthy, although it is recognized that this particular research has several limitations. First, this research was conducted in a unique environment where 81.9% identified as white making the results difficult to generalize to more diverse regions. Second, the institutional demographics are unique to North Dakota, especially the two-year colleges which all have on-campus living options. Also, as noted in the delimitations, students were asked to recall past interactions with faculty members. When asked about previous behavior and interactions there is always the chance for mistaken recall. All the delimitations and limitations provide opportunity for future research.

Recommendations for Future Research

This research raised several questions that should be explored in future research. First, it was found that most students do not recall or value faculty communicating about alcohol use. However, before completely discrediting any faculty influence on college student alcohol use, it would be useful to further investigate, through a qualitative study, the context and quality of communication between college students and faculty members; possibly starting first with male students at two-year colleges since this research indicated that they, although slightly, report faculty members' expectations would influence their drinking behavior. This future research

would also provide insights into better understanding why students at two-year colleges indicate they value faculty expectations more than those students at four-year institutions.

Second, this study was focused solely on if faculty members' impact college student alcohol use. Faculty are influential on college students' success (Pascarella & Terenzini, 2005; Reason, 2009), but research also indicates that other campus personnel can be just as important in college student success (Astin, 1993; Nutt, 2003). Future research should also explore the impact college personnel (other than faculty) through examining the communication that occurring and the value students assign to that communication.

Third, this research was conducted in a very rural, homogenous state. It would be beneficial to replicate this research in at more diverse institutions in both race and ethnicity, but also in commuter and residential students. It has been found that students that identify as white typically drink more than those students that identify as Hispanic, Asian, or African-American (Broman, 2005). Additionally, every institution in the present research had on-campus living options or requirements (NDUS, 2014). Prior research indicates that students at two-year colleges typically drink less than those at four-year institutions (Wechsler et al., 2002); it would be beneficial to repeat this research at commuter campuses to better understand how this factor impacts faculty influence on students' alcohol use. Replicating the current research at more diverse institutions may yield different results and provide insights into demographic factors influencing faculty influence on college student alcohol use.

Conclusion

This research set out to begin to understand if faculty members impact college student alcohol use; essentially, do faculty matter? Although a definitive answer to this question cannot be given, this research has provided foundational data that indicates that overall students do not

feel faculty matter regarding their alcohol use behavior. It also prompts a more targeted and essential question that would further not only alcohol use prevention research, but also student success literature: what are the necessary conditions for faculty to matter?

It is understood that peers and parents are influential on students' decisions and behaviors regarding not only alcohol use, but other behaviors. Additionally, SLT establishes that social behavior is acquired both through direct conditioning and by imitating or modeling of influential individuals (Akers et al., 1979). There are several key elements that strengthen or diminish the impact of a modeled behavior, one element is evaluative definitions (norms, attitudes, orientations) of a behavior as good or bad; another element is differential association which involves the direct association with individuals who engage in a certain behavior. It would be necessary to identify at what point do mentors, advisors or faculty members become an influential individual in college students' decisions? This would enable us to better identify who should be enlisted to help with communicating and setting expectations related to alcohol use.

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APPENDIX A. 2014 NDCORE SURVEY

North Dakota Higher Education Consortium for Substance Abuse Prevention
NDCORE Alcohol and Drug Survey
Funded by "U.S. Department of Education PR Award Number Q184Z090048"

Marking Instructions

- Use number 2 pencil only.
- Make dark marks that fill the oval completely.
- Erase clearly any mark you wish to change.
- Make no stray marks.

Incorrect Marks

Correct Mark

USE NO. 2 PENCIL ONLY

<p>1. Classification:</p> <p>Freshman <input type="radio"/></p> <p>Sophomore <input type="radio"/></p> <p>Junior <input type="radio"/></p> <p>Senior <input type="radio"/></p> <p>Grad/professional <input type="radio"/></p> <p>Not seeking a degree <input type="radio"/></p> <p>Other <input type="radio"/></p>	<p>2. Age:</p> <table border="1" style="width: 100%; height: 40px; border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table> <p style="font-size: x-small;">(0) (9) (1) (1) (2) (2) (3) (3) (4) (4) (5) (5) (6) (6) (7) (7) (8) (8) (9) (9)</p>			<p>3. Ethnic origin:</p> <p>American Indian/Alaskan Native <input type="radio"/></p> <p>Hispanic <input type="radio"/></p> <p>Asian/Pacific Islander <input type="radio"/></p> <p>White (non-Hispanic) <input type="radio"/></p> <p>Black (non-Hispanic) <input type="radio"/></p> <p>Other <input type="radio"/></p>	<p>4. Marital status:</p> <p>Single <input type="radio"/></p> <p>Married <input type="radio"/></p> <p>Separated <input type="radio"/></p> <p>Divorced <input type="radio"/></p> <p>Widowed <input type="radio"/></p>																																																																																																																																												
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<p>10. Some students have indicated that alcohol or drug use at parties they attend in and around campus reduces their enjoyment, often leads to negative situations, and therefore, they would rather not have alcohol and drugs available and used. Other students have indicated that alcohol and drug use at parties increases their enjoyment, often leads to positive situations, and therefore, they would rather have alcohol and drugs available and used. Which of these is closest to your own view?</p> <p style="text-align: center;">Have available Not have available</p> <p>With regard to drugs? <input type="radio"/> <input type="radio"/></p> <p>With regard to alcohol? <input type="radio"/> <input type="radio"/></p>																																																																																																																																																	
<p>11. Student status:</p> <p>Full-time (12+ credits) <input type="radio"/></p> <p>Part-time (1-11 credits) <input type="radio"/></p>	<p>12. Campus situation on alcohol and drugs:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">yes</th> <th style="text-align: center;">no</th> <th style="text-align: center;">don't know</th> </tr> </thead> <tbody> <tr> <td>a. Does your campus have alcohol and drug policies?</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> <tr> <td>b. If so, are they enforced?</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> <tr> <td>c. Does your campus have a drug and alcohol prevention program?</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> <tr> <td>d. Do you believe your campus is concerned about the prevention of drug and alcohol use?</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> <tr> <td>e. Are you actively involved in efforts to prevent drug and alcohol use problems on your campus?</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> </tbody> </table>				yes	no	don't know	a. Does your campus have alcohol and drug policies?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	b. If so, are they enforced?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	c. Does your campus have a drug and alcohol prevention program?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	d. Do you believe your campus is concerned about the prevention of drug and alcohol use?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	e. Are you actively involved in efforts to prevent drug and alcohol use problems on your campus?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																																																																																																																						
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<p>13. Place of permanent residence:</p> <p>North Dakota <input type="radio"/></p> <p>USA, but out of state <input type="radio"/></p> <p>Country other than USA <input type="radio"/></p>	<p>14. Think back over the last two weeks. How many times have you had five or more drinks* at a sitting?</p> <p>None <input type="radio"/></p> <p>Once <input type="radio"/></p> <p>Twice <input type="radio"/></p> <p>3 to 5 times <input type="radio"/></p> <p>6 to 9 times <input type="radio"/></p> <p>10 or more times <input type="radio"/></p> <p style="font-size: x-small;">*A drink is a bottle of beer, a glass of wine, a wine cooler, a shot glass of liquor, or a mixed drink.</p>																																																																																																																																																
<p>15. Average # of drinks* you consume a week:</p> <table border="1" style="width: 100%; height: 40px; border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table> <p style="font-size: x-small;">(If less than 10, code answers as 00, 01, 02, etc.)</p> <p style="font-size: x-small;">(0) (0) (1) (1) (2) (2) (3) (3) (4) (4) (5) (5) (6) (6) (7) (7) (8) (8) (9) (9)</p>				<p>16. At what age did you first use... (mark one for each line)</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Did not use</th> <th style="text-align: center;">Under 10</th> <th style="text-align: center;">10-11</th> <th style="text-align: center;">12-13</th> <th style="text-align: center;">14-15</th> <th style="text-align: center;">16-17</th> <th style="text-align: center;">18-20</th> <th style="text-align: center;">21-25</th> <th style="text-align: center;">26+</th> </tr> </thead> <tbody> <tr><td>a. Tobacco (smoke, chew, snuff)</td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td></tr> <tr><td>b. Alcohol (beer, wine, liquor)*</td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td></tr> <tr><td>c. 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Cocaine (crack, rock, freebase)</td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td></tr> <tr><td>e. 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Sedatives (downers, ludes)</td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td><td style="text-align: center;"><input type="radio"/></td></tr> <tr><td>g. 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Alcohol (beer, wine, liquor)*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	c. Marijuana (pot, hash, hash oil)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	d. Cocaine (crack, rock, freebase)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	e. Amphetamines (diet pills, speed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	f. 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c. Marijuana (pot, hash, hash oil)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																																																																																																																																								
d. Cocaine (crack, rock, freebase)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																																																																																																																																								
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m. Other illegal drugs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																																																																																																																																								

17. Within the last year about how often have you used... (mark one for each line)

	Do not use	Once a year	6 times a year	Once a month	Twice a month	Once a week	3 times a week	5 times a week	Every day
a. Tobacco (smoke, chew, snuff)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Alcohol (beer, wine, liquor)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Marijuana (pot, hash, hash oil)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Cocaine (crack, rock, freebase)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Amphetamines (diet pills, speed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Sedatives (downers, ludes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Hallucinogens (LSD, PCP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Opiates (heroin, smack, horse)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Inhalants (glue, solvents, gas)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Synthetic Drugs (K2, Spice, Bath Salts)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Steroids	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Non-medical use of prescription drug	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Other illegal drugs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. During the past 30 days on how many days did you have: (mark one for each line)

	0 days	1-2 days	3-5 days	6-9 days	10-19 days	20-29 days	All 30 days
a. Tobacco (smoke, chew, snuff)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Alcohol (beer, wine, liquor)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Marijuana (pot, hash, hash oil)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Cocaine (crack, rock, freebase)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Amphetamines (diet pills, speed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Sedatives (downers, ludes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Hallucinogens (LSD, PCP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Opiates (heroin, smack, horse)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Inhalants (glue, solvents, gas)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Synthetic Drugs (K2, Spice, Bath Salts)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Steroids	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Non-medical use of prescription drug	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Other illegal drugs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. How often do you think the average student on your campus uses... (mark one for each line)

	Never	Once a year	6 times a year	Once a month	Twice a month	Once a week	3 times a week	5 times a week	Every day
a. Tobacco (smoke, chew, snuff)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Alcohol (beer, wine, liquor)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Marijuana (pot, hash, hash oil)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Cocaine (crack, rock, freebase)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Amphetamines (diet pills, speed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Sedatives (downers, ludes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Hallucinogens (LSD, PCP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Opiates (heroin, smack, horse)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Inhalants (glue, solvents, gas)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Synthetic Drugs (K2, Spice, Bath Salts)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Steroids	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Non-medical use of prescription drug	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Other illegal drugs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20. Where have you used... (mark all that apply)

	Never used	On campus events	Public house/pub	Fast-food only	Bar/restaurant	Where you live	In a car	Private parties	Other
a. Tobacco (smoke, chew, snuff)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Alcohol (beer, wine, liquor)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Marijuana (pot, hash, hash oil)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Cocaine (crack, rock, freebase)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Amphetamines (diet pills, speed)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Sedatives (downers, ludes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Hallucinogens (LSD, PCP)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Opiates (heroin, smack, horse)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Inhalants (glue, solvents, gas)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Synthetic Drugs (K2, Spice, Bath Salts)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Steroids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Non-medical use of prescription drug	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Other illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

21. Please indicate how often you have experienced the following due to your drinking or drug use during the last year... (mark one for each line)

	Never	Once	Twice	3-5 times	6-9 times	10 or more times
a. Had a hangover	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Performed poorly on a test or important project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Been in trouble with police, residence hall, or other college authorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Damaged property, pulled fire alarm, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Got into an argument or fight	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Got nauseated or vomited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Driven a car while under the influence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Missed a class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Been criticized by someone I know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Thought I might have a drinking or other drug problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Had a memory loss	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Done something I later regretted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Been arrested for DWI/DUI	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Have taken advantage of another sexually	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Tried unsuccessfully to stop using	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Seriously thought about suicide	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Seriously tried to commit suicide	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. Been hurt or injured	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. Have any of your family had alcohol or other drug problems: (mark all that apply)

<input type="checkbox"/> Mother	<input type="checkbox"/> Brothers/sisters	<input type="checkbox"/> Spouse
<input type="checkbox"/> Father	<input type="checkbox"/> Mother's parents	<input type="checkbox"/> Children
<input type="checkbox"/> Stepmother	<input type="checkbox"/> Father's parents	<input type="checkbox"/> None
<input type="checkbox"/> Stepfather	<input type="checkbox"/> Aunts/uncles	

23. Question 23 Omitted

24. What was the population of the community in which you grew up?

<input type="radio"/> A 1,000 or less	<input type="radio"/> F 20,001 - 50,000
<input type="radio"/> B 1,001 - 2,500	<input type="radio"/> G 50,001 - 100,000
<input type="radio"/> C 2,501 - 5,000	<input type="radio"/> H 100,001 - 500,000
<input type="radio"/> D 5,001 - 10,000	<input type="radio"/> I 500,001 - 1 million
<input type="radio"/> E 10,001 - 20,000	<input type="radio"/> J More than 1 million

25. Have you ever been taken advantage of sexually while under the influence of alcohol or other drugs?

<input type="radio"/> Never
<input type="radio"/> Once
<input type="radio"/> Twice
<input type="radio"/> 3-5 times
<input type="radio"/> 6-9 times
<input type="radio"/> 10 or more times

Please continue on the next page...

26. If you consume alcohol or use marijuana, from which of the following sources do you obtain it? (Mark as many as apply):

Alcohol Sources	Marijuana Sources
<input type="checkbox"/> Friends under 21	<input type="checkbox"/> Friends at school
<input type="checkbox"/> Friends older than 21	<input type="checkbox"/> Friends at home
<input type="checkbox"/> Using a fake ID	<input type="checkbox"/> Parent with consent
<input type="checkbox"/> Using a false ID (someone else's)	<input type="checkbox"/> Parent without consent
<input type="checkbox"/> Adult acquaintances	<input type="checkbox"/> Drug Dealer
<input type="checkbox"/> Parent with consent	<input type="checkbox"/> Acquaintances
<input type="checkbox"/> Parent without consent	<input type="checkbox"/> Self
<input type="checkbox"/> Self	<input type="checkbox"/> Other
<input type="checkbox"/> Other	

27. In your opinion, would stricter campus policies, state laws, or city ordinances deter you from drinking?

Yes No

If you answered "yes" to the above question, what do you believe would be the most effective?

Fines/Fees
 Education
 Community Service
 Removal from residence hall
 Expulsion from college
 Jail
 Parental Notification

28. How seriously do you consider the following factors as a way of limiting or controlling your alcohol, tobacco, or other drug use:

Parents expectations:	Very Effective	Somewhat Effective	Not Effective	Parents rules:	Very Effective	Somewhat Effective	Not Effective
For alcohol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	For alcohol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
For tobacco	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	For tobacco	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
For other drugs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	For other drugs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do either of your parents drink alcohol? Yes No
Do either of your parents talk to you about alcohol use? Yes No
Have either of your parents ever talked to you about your drinking? Yes No
Do either of your parents use illicit drugs? Yes No
Do either of your parents talk to you about illicit drugs? Yes No
Have either of your parents ever talked to you about your use of illicit drugs? Yes No
Have you ever had to take care of a parent when they were drinking heavily? Yes No

29. Question 29 Omitted

30. Do you believe having alcohol available is necessary for having a good time?

Yes No

Are there alcohol free activities for the following age groups?

	YES	NO	Don't Know
a. Youth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. College Students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Young Adults	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Adults	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Alumni	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Where you live, are there alcohol free activities:

Yes plenty of activities
 Yes, but not enough activities
 Not within walking distance
 Not enough inexpensive or free options
 None that are fun
 None that my friends would attend
 No activities
 Don't know

31. Have you ever been cited for:

	YES	NO
a. Minor in consumption/possession	<input type="radio"/>	<input type="radio"/>
b. DUI / Actual physical control	<input type="radio"/>	<input type="radio"/>
c. Disorderly Conduct	<input type="radio"/>	<input type="radio"/>
d. Assault / Violent Behavior	<input type="radio"/>	<input type="radio"/>

If Yes, was the citation(s) issued by:

	Law Enforcement	Campus judicial affairs	Both
a. Minor in consumption/possession	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. DUI / Actual physical control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Disorderly Conduct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Assault / Violent Behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

32. Question 32 Omitted

Please continue on the next page...

33. In which of the following ways does the drinking of other students interfere with your life on or around campus (mark one for each line)?

Doesn't interfere with my life (Go to question 34).

- a. Interrupts your studying
- b. Makes you feel unsafe
- c. Messes up your physical living space (Cleanliness, neatness, organization, etc.)
- d. Adversely affects your involvement on an Athletic team or in other organized groups
- e. Prevents you from enjoying events (Concerts, sports, social activities, etc.)
- f. Interferes in other way(s)

YES	NO
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>

34. If you use prescription drugs/medication not prescribed to you, or use your prescription medication different from how it's prescribed, from which of the following source(s) do you obtain it? (Mark as many as apply):

- A Friends
- B Adult Acquaintances
- C Parent with their consent
- D Parent without their consent
- E Self
- F Internet
- G Family Member
- H Drug Dealer
- I Doctor
- J Other

35. Do you currently, or have you in the past, held a prescription for medical marijuana?

- A Yes
- B No

If so, which state?

- A AL
- B AZ
- C CA
- D CO
- E CT
- F D.C.
- G DE
- H HI
- I ME
- J MI
- K MT
- L NV
- M NJ
- N NM
- O OR
- P RI
- Q VT
- R WA

Additional Use Questions

36. <input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	37. <input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	38. <input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	39. <input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9	49. <input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9
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Thanks

APPENDIX B. 2014 NDCORE ADDITIONAL QUESTIONS

ADDITIONAL NDCORE QUESTIONS - 2014

***Please do not circle your answers on this page.
Instead use the space located on the bottom of the final page of
the survey.***

36. In order to compute your average blood alcohol content, it is important that we ask your body weight.

Please enter your body weight (in pounds) in the ovals.

Please use the examples below to complete the answer on the answer sheet.

Example: If you weigh 150 pounds, you would darken the oval that corresponds with a 1 in the left column, a 5 in the center column, and a 0 in the right column for question 36.

Example: If you weigh 98 pounds, you would darken the oval that corresponds 0 in the left column, a 9 in the center column, and an 8 in the right column for question 36.

37. Think of the occasion you drank the most during the past month.

How much did you drink?

Please use the examples below to complete the answer on the answer sheet.

Example: If you drank 5 drinks, you would darken the oval that corresponds with a 0 in the left column, a 0 in the center column, and a 5 in the right column for question 37.

Example: If you drank 12 drinks, you would darken the oval that corresponds with a 0 in the left column, a 1 in the center column, and a 2 in the right column for question 37.

38. Think of the occasion you drank the most during the past month.

How many HOURS did you spend drinking on that occasion?

Please use the examples below to complete the answer on the answer sheet.

Example: If you drank over a 5 hour period of time, you would darken the oval that corresponds with a 0 in the left column, a 0 in the center column, and a 5 in the right column for question 38.

Example: If you drank 12 hour period of time, you would darken the oval that corresponds with a 0 in the left column, a 1 in the center column, and a 2 in the right column for question 38.

39. How frequently do you hear [CAMPUS] instructors making light-hearted comments about alcohol use?

- 0 Daily (one or more times per day)
- 1 Often (at least once per week)
- 2 Occasionally (less than once per week)
- 3 Rarely (less than once per month)
- 4 Never

40. How frequently do you hear [CAMPUS] instructors talk about the risks associated with alcohol use?

- 0 Daily (one or more times per day)
- 1 Often (at least once per week)
- 2 Occasionally (less than once per week)
- 3 Rarely (less than once per month)
- 4 Never

41. How frequently do you hear [CAMPUS] instructors talk about their expectations that students limit or control their alcohol use?

- 0 Daily (one or more times per day)
- 1 Often (at least once per week)
- 2 Occasionally (less than once per week)
- 3 Rarely (less than once per month)
- 4 Never

42. How likely would you be to change your alcohol use behavior based on an instructors' expectation?

- 0 Very Unlikely
- 1 Somewhat Unlikely
- 2 Unlikely
- 3 Likely
- 4 Somewhat Likely
- 5 Very Likely

43. How effective do you consider [CAMPUS] instructors' expectations as way of limiting or controlling your alcohol use?

- 0 Very Effective
- 1 Somewhat Effective
- 2 Not Effective

44. Have either of your parents talked to you about their expectations regarding your drinking (alcohol)?

- 0 Yes
- 1 No

45. Do you believe having marijuana (pot, hash, hash oil) available is necessary for having a good time?

- 0 Yes
- 1 No

46. Have you experienced any of the following at least once because of your marijuana (pot, hash, hash oil) use? (Mark all that apply)

- 0 Irritability, anger, or aggression
- 1 Nervousness or anxiety
- 2 Sleep difficulty (e.g., insomnia, disturbing dreams)
- 3 Decreased appetite or weight loss
- 4 Increased appetite or weight gain
- 5 Restlessness, difficulty focusing/attention
- 6 Depressed mood
- 7 At least one of the following physical symptoms causing significant discomfort:
abdominal pain, shakiness/tremors, fever, chills, or headache
- 8 Difficulty remembering or recalling information

PLEASE see next page for additional questions →

47. CAMPUS SPECIFIC

48. CAMPUS SPECIFIC

49. CAMPUS SPECIFIC

THANK YOU!

APPENDIX C. RESEARCH COMPLIANCE FORMS



September 30, 2014

Erika Beseler-Thompson
Department of Student Success Programs
Lower Level WDC

IRB Approval of Protocol #XX15049, "Core Drug and Alcohol Survey 2014"
Co-investigator(s) and research team: Casey Peterson, Denage Braaten, Chris Held, Kelsie Jo Carter, Hyeong-Gyeong Cho, Anna Chock, Aaron Grinsteiner, Ashely Harris, Kelli Layman, Jackson Lindom, Nancy Mueller, Jackie Schluchter, Angela Seewald-Marquardt, Kelsey Stahl, Amanda Voigt, Jennafer Vondal, Robert Dvorak, Rebecca Lamboley, Chas Lietaert, Laura Oster-Aaland, Chris Ray, Kevin Thompson, Jane Vangsness Frisch

Approval period: 9/30/14 to 9/29/15
Continuing Review Report Due: 8/1/15

Research site(s): NDSU Funding Agency: n/a
Review Type: Expedited category # 7
IRB approval is based on the original protocol submission, with revised: protocol form (received 9/25/14).

Additional approval is required:
o prior to implementation of any changes to the protocol (Protocol Amendment Request Form).
o for continuation of the project beyond the approval period (Continuing Review/Completion Report Form). A reminder is typically sent 4-6 weeks prior to the expiration date; timely submission of the report is your responsibility. To avoid a lapse in approval, suspension of recruitment, and/or data collection, a report must be received, and the protocol reviewed and approved prior to the expiration date.

A report is required for:
o any research-related injuries, adverse events, or other unanticipated problems involving risks to participants or others within 72 hours of known occurrence (Report of Unanticipated Problem or Serious Adverse Event Form).
o any significant new findings that may affect risks to participants.
o closure of the project (Continuing Review/Completion Report Form).

Research records are subject to random or directed audits at any time to verify compliance with IRB regulations and NDSU policies.

Thank you for cooperating with NDSU IRB procedures, and best wishes for a successful study.

Sincerely,

Kristy Shirley

Digitally signed by Kristy Shirley
DN: cn=Kristy Shirley, o=NDSU, ou=SPA,
email=kristy.shirley@ndsu.edu, c=US
Date: 2014.09.30 08:40:52 -0500

Kristy Shirley, CIP, Research Compliance Administrator

For more information regarding IRB Office submissions and guidelines, please consult www.ndsu.edu/irb. This Institution has an approved FederalWide Assurance with the Department of Health and Human Services: FWA00002439.

INSTITUTIONAL REVIEW BOARD

NDSU Dept 4000 | PO Box 6050 | Fargo ND 58108-6050 | 701.231.8995 | Fax 701.231.8098 | ndsu.edu/irb

Shipping address: Research 1, 1735 NDSU Research Park Drive, Fargo ND 58102

NDSU is an SCDWA university

APPENDIX D. 2014 NDCORE SURVEY INFORMED CONSENT

NDSU **North Dakota State University**
Student Success Programs
NDSU Dept #5260
PO Box 6050
Fargo, ND 58108
(701) 231-8379

Title of Research Study: Core Drug and Alcohol Survey 2014

This study is being conducted by: Erika Beseler Thompson; Assistant Director of Alcohol and Other Drug Abuse Prevention Programs at NDSU in conjunction with the President's Council on Alcohol and Other Drugs. Erika.Beseler@ndsu.edu. (701) 231-5478.

Why am I being asked to take part in this research study? You are asked to take part in a survey since you are a student at NDSU. If you are under 18 years old or if you have completed this survey recently in another class, you are excluded from the study.

What is the reason for doing the study? The purpose of this survey is to gather information from NDSU students regarding student alcohol and other drug use. This survey was completed by NDSU students in previous years, so the data obtained from this year's survey will not only address gaps in knowledge related to alcohol and other drugs on the NDSU campus, but will also be compared to survey results from previous years to gauge whether these behaviors/perceptions have changed.

What will I be asked to do? You will be given a brief paper survey to complete using a #2 pencil. A pencil will be provided to you if you do not have one. The survey will ask you questions regarding your perceptions and involvement in alcohol and other drug use. If you agree to participate in the survey, you will complete the questions. Once you complete the survey, you will place the finished survey in the box provided in your classroom. If you opt not to participate, you will turn in your blank survey in the same box.

Where is the study going to take place, and how long will it take? Since the study focuses on NDSU students, the survey will be completed in the classroom during class time. It is estimated that it will take 25 minutes or less to complete.

What are the risks and discomforts? The risks associated with this study are minimal. Since there is no identifying information on the survey (ie. name, email address, etc.) the only potential risk appears to be the possibility that other students may be able to see your responses. For this reason, **we ask that you cover your responses with this informed consent sheet as you answer the questions.**

What are the benefits to me? The benefits you may expect to receive from participating in this study include: 1) A better understanding of the research process, and 2) An increased awareness about your current substance use behaviors and/or attitudes.

What are the benefits to other people? Excessive alcohol and other drug use may contribute to reasons why NDSU students perform poorly or drop-out of school. Your

responses on this survey may be used to assist in the development of alcohol and other drug abuse interventions to improve the climate for all NDSU students.

Do I have to take part in the study? Your participation in this research is your choice. If you decide to participate in the study, you may change your mind and stop participating at any time without penalty or loss of benefits to which you are already entitled.

What are the alternatives to being in this research study? Instead of being in this research study, you can choose not to participate. If you choose not to participate in this study, you may remain in the classroom and work on school work once the survey is handed out.

Who will see the information that I give? This study is anonymous. That means that no one, not even members of the research team, will know that the information you give comes from you.

What if I have questions?

Before you decide whether to accept this invitation to take part in the research study, please ask any questions that might come to mind now. Later, if you have any questions about the study, you can contact the researcher, Erika Beseler Thompson at (701)231-5478 or Erika.Beseler@ndsu.edu.

What are my rights as a research participant?

You have rights as a participant in research. If you have questions about your rights, or complaints about this research, you may talk to the researcher or contact the NDSU Human Research Protection Program by:

- Telephone: 701.231.8908
- Email: ndsu.irb@ndsu.edu
- Mail: NDSU HRPP Office, NDSU Dept. 4000, PO Box 6050, Fargo, ND 58108-6050.

The role of the Human Research Protection Program is to see that your rights are protected in this research; more information about your rights can be found at: www.ndsu.edu/research/irb

Documentation of Informed Consent:

You are freely making a decision whether to be in this research study. Completing the survey means that:

1. you have read and understood this consent form
2. you have had your questions answered, and
3. you have decided to be in the study.

You may keep this consent form.

Institutional Review Board
North Dakota State University
PROTOCOL #: KK15019
APPROVED: 9/30/14
EXPIRES: 9/30/15