Spirituality and Binge Drinking Among College Students

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ABSTRACT

One area of great interest to student affairs administrators is the spirituality of college students. Due to recent publications that have opened up communication for more discussion on student spirituality and because of thorough research by the Higher Education Research Institute at the University of California, Los Angeles, student spirituality is gaining attention. Also of great interest to college administrators is the importance of reducing high risk drinking behaviors among their students.

This study examined the relationship between student spirituality and binge drinking among college students at a large, Midwestern university. Results from this research found that there was a significant and negative correlation between spirituality and binge drinking. Understanding this relationship will help universities tackle binge drinking patterns in an innovative way.

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CHAPTER 1: RESEARCH OVERVIEW

University administrators have a great interest in the development of students during their time at college. Concern for academic success is of much importance. However, many administrators and student affairs professionals believe that what happens outside the classroom is considered foundational to students' experiences while attending college. University administrators need to understand the implications for how students adapt to college life and make decisions that impact social and academic development in order to enhance the overall student experience at college. Looking at student behaviors in social settings is one approach to viewing specific factors that influence personal development. More specifically, looking at factors that directly impact drinking behaviors will provide insight into one of the greatest concerns of campus administrators. This study examined the relationship between student spirituality and binge drinking habits among college students.

Student development in college is of interest to university administrators because of its impact upon individual student success. Understanding and applying student development theory begets curricular and co-curricular programming development that will help to meet student needs and expectations. Traditional student development theories have been based on either the cognitive structural development or the psychosocial development of students (Keeling, 2004; Stage, 1989). The former approach focuses on the way that students process information while the latter emphasizes the way students understand themselves. Putting the two together allows for a stronger representation of each student. Therefore, holistic development of college students,

which includes both approaches, provides a greater framework from which growth can be understood and examined.

A holistic approach to educational research and practice provides the necessary framework for students to work through many complex developmental issues (King & Baxter-Magolda, 2004). In addition, holistic development is a process through which students are able to define their own identities and belief systems (Taylor, 2008). Looking at the relationship between spirituality and binge drinking complements this aspect of the educational process through an examination of two distinct elements that encompass important aspects of college students' daily lives. By applying the concepts of holistic student development, a closer look at these two aspects of the student experience will provide more insights into the cognitive and psychosocial development of college students by seeking to find a relationship between them.

One of the most impacting values of personal growth is found in the process by which individuals understand their purpose and meaning in life (Chickering & Reisser, 1993). The development through which purpose and meaning making are found needs to be given ample support in college. Spirituality is what forms personal values, forms a belief system regarding meaning and purpose, and explains how we connect to others in the world (Astin, 2004). Further, it is through the understanding that each person is a spiritual being that student affairs professionals can hope to better define personal inspiration, mystical or mysterious events, and even intuition (Astin, 2004).

Student Development in College

Within their theory on the college student development process, Chickering and Reisser (1993) explained the final two vectors of development as developing purpose and developing integrity. In these two elements are the processes from which students establish personal

meaning and develop a framework from which to make positive decisions for themselves. In developing purpose, students ask themselves who they are, what they can do well, and why. The time right before and after college graduation is a key period for students to attempt to determine purpose in life and what matters most (Chickering & Reisser, 1993). Developing integrity involves individuals personalizing and substantiating the values that have formed their worldviews up to that point. In addition, Chickering and Reisser asserted that "meaningful beliefs can be based on reason, faith, or intuition, but for development to occur, these beliefs must contribute to the good of all as well as sustain the individual in times of crises" (p. 264). Thus, as students work to develop their own spirituality, personal beliefs, and a sense of purpose, students must take into account their impact on the world around them. These elements must also be stable enough to develop truth and meaning and strong enough to endure the effects of the world upon them. The college years are replete with transitions as students adapt to new environments and therefore are required to develop a personal set of values for how to live life with purpose and succeed academically, socially and otherwise.

Students need to be provided with the tools necessary for intentional learning through an understanding of their new environments at college. This process includes a strong focus on identity development and the responsibility of each person to take ownership of his or her actions and values (Keeling, 2004). Miller and Prince (1976) noted that student development includes mastering complex developmental tasks, achieving self-direction, and attaining interdependence. Without an understanding of self and personal development, values and meaning in life have no room for significant application. For example, being able to interpret roles in academic, social, and spiritual environments in light of their similarities and differences provides the opportunity

to find meaning and understanding of how to make better decisions in life. Another major aspect of this process of establishing significance and meaning is the application of personal wellness.

Wellness is the process by which students become more aware of their lives and are able to make choices that lead to healthier lifestyles. Traditional elements of student wellness include aspects of physical, emotional, social, occupational, intellectual and spiritual activity (Hermon & Davis, 2004). However, many universities overlook spiritual development issues. Spiritual wellness has long been considered a major component of holistic wellness and to overlook spiritual development issues is to ignore the lens through which many develop meaning and knowledge (Astin, 2004; Lindholm, 2007; Love & Talbot, 1999; Wood & Herbert, 2005).

Higher education institutions are traditionally regarded for their openness to new ideas and pursuits that improve upon academic achievement (Laurence, 1999; Love & Talbot, 1999). However, despite this calling and expectation, aspects of spirituality are often avoided or discouraged. Whether it is the separation of church and state, the belief that spirituality is to be a private endeavor or the liberal worldviews of many professors in academia, the traditional connection between spirituality and religiosity has kept non-faith-based campuses from fully engaging spiritual development issues (Chickering, Dalton, & Stamm, 2006). Between 1984 and 1999, only one essay that addressed spiritual development was published by the major student affairs journals (Love & Talbot, 1999).

Spiritual Development of College Students

In 2003, the Higher Education Research Institute (HERI) began a multi-year study on the spirituality of college students (Astin & Astin, 2004). What has been documented in this research is that today's college students have a strong interest in spirituality and even anticipate that the institutions they attend will provide adequate emotional and spiritual development opportunities.

Further, the research has discovered that eight out of ten college freshmen have an interest in spirituality and over 75% search for a purpose and meaning in life while at college (Astin & Astin, 2004).

There has recently been an increase of interest in the spirituality of college students. Universities have begun to include spirituality as one of many core elements to the liberal arts education being offered (Astin & Astin, 2004). There has also been a significant amount of research on how student spirituality impacts personal health and healthy behaviors (Wood & Hebert, 2005). However, there has been a noticeable lack of research that addresses how spirituality impacts unhealthy behaviors. Recent research argues that the college years are times of spiritual struggle and spiritual pursuits, and within these struggles comes the desire to find answers to life's hard questions about self and purpose (Astin & Astin, 2004; Bryant & Astin, 2008; Fowler, 1981; Parks, 2000; Talbot & Love, 1999). The failure to address spiritual development issues in professional research has left a void in student affairs professionals' understanding of holistic personal growth. The years spent at college are ones in which personal exploration and discovery take place yet spirituality has lain dormant as a topic of interest. More attention needs to be given to the relationships between personal spirituality, spiritual struggle, and spiritual pursuits and the unhealthy decisions made during the college years.

Binge Drinking

One area of concern in the social development of college students is high-risk drinking behaviors (Brown, Salsman, Brechting, & Carlson, 2007; Vicary & Karshin, 2004; Wechsler, Dowdall, Davenport, & Castillo, 1995; Weitzman & Nelson, 2004). High-risk drinking is widely considered to be the practice of binge drinking or the consumption of the equivalent of five or more drinks in a row for men and four for women on one or more occasions during the two

weeks immediately previous to being assessed (Johnston, O'Malley, Bachman, & Schulenberg, 2008; Wechsler & Nelson, 2008). Such alcohol consumption is considered high-risk because of the negative impact it has upon the body. Binge drinking results in blood alcohol concentrations rising to .08 percent or greater and it is at this point that most alcohol related injuries have been reported (Wechsler & Nelson, 2008). Other side effects of binge drinking often include missing class, studying less, a decrease in grade point average, an increase in risky sexual behavior, and vandalism (Broadwater, Curtin, Martz, & Zrull, 2006; Brown et al., 2007; Powell, Williams, & Wechsler, 2004; Wechsler et al., 2002). Binge drinkers are five times as likely to encounter negative consequences for their actions than other levels of drinking (Presley, 1995). Further, environments that have a higher percentage of students who participate in binge drinking have a higher reporting of such negative behaviors (Wechsler, Moeykens, Davenport, Castillo, & Hansen, 1995; Wechsler & Nelson, 2008).

In the 14 years of the Harvard University School of Public Health's College Alcohol Study (CAS), binge drinking rates among the college student population have remained stable at about 40-50% (Johnston et al., 2008; Vicary & Karshin, 2004; Wechsler & Nelson, 2008). Because high-risk drinking has a negative influence on personal growth and development, the need to reduce high-risk drinking behaviors has become more prevalent. The U.S. Surgeon General declared in 2000 that one major health goal at the time would be to reduce high risk drinking among college students; however, high risk drinking still remains a problem (Brown et al., 2007). The CAS exposed that the average American college student drinks in excess. According to Wechsler and Nelson, over 90% of the alcohol consumed by college students is by binge drinkers.

University administrators have increased the attention being given to eliminating binge drinking through a variety of strategies and proposals (Jones & Kern, 1999; Pace & McGrath, 2002). In late 2008, the presidents and chancellors of over 100 U.S. universities including Duke, Dartmouth, and Ohio State University joined together to publicly encourage Congress to lower the legal drinking age from 21 to 18 through the Amethyst Initiative. Reasoning for such a pursuit is based on the belief that because the traditional college-aged first-year student is eighteen years old, social pressures encourage unethical pursuits to obtain alcohol and drink irresponsibly (Amethyst Initiative). The reasoning maintains that the higher legal drinking age of 21 actually encourages binge drinking. Thus, it is being argued that college students who do not have to worry about drinking restrictions will become more responsible at the earlier age.

Arguments against the Amethyst Initiative state that if the legal drinking age is changed to 18, high school-aged teenagers will have to face the same issues many college students confront but at an earlier age and in an environment that trickles down to an even younger group of peers (Hoover, 2008). Further, studies since the legal drinking age in the United States rose from 18 to 21 in the 1980s have demonstrated a drop in alcohol-related traffic deaths, fewer traffic fatalities for individuals aged 15-20, and that brain damage related to alcohol is greater in the earlier years of a person's development (Degutis, 2008). Regardless of each argument's case, binge drinking is a great concern to many constituents and efforts to reduce the number of individuals participating in such behavior are of imminent concern.

Assessing the relationship between aspects of student wellness and high-risk drinking habits is vital to the process of designing programs that help to eliminate problems linked to such behaviors as suicide, rape and violent crimes, vandalism, poor academic performance and depression (Bates, Cooper, & Wachs, 2001; Wechsler et al., 1995; Wood & Herbert, 2005).

Student wellness is "an active process through which the individual becomes aware and makes choices toward a more healthy existence" (Hettler, 1980, p.77). University administrators continually look to reduce the amount of such student behaviors linked to alcohol abuse and realize the importance of providing programming for student development that encourages positive decision making. Co-curricular programming should be geared more toward efforts that increase self-esteem, provide support for making healthy decisions and minimize the chance of making regretful decisions (Bates et al., 2001). Further, the overall wellness of college students has been an excellent guide for such development. It is through the pursuit of student wellness that proper personal development can take place.

Research supports the idea that students mature through the personal process of developing purpose and establishing personal integrity (Chickering & Reisser, 1993; Pascarella & Terenzini, 1991). Thus, students who can lay a foundation for understanding what enables them to find meaning and establish values demonstrate the highest characteristics of development and are well equipped to make good decisions regarding their life in all areas of wellness.

Understanding how to build and maintain a positive campus climate for student success is important to university administrators. The major contribution to campus climate is the culture that is established over time and is "shaped by the combination of institutional history, mission, physical setting, norms, traditions, values, practices, beliefs, and assumptions that guide the behavior of individuals" (Kuh & Whitt, 1988, p. 37). Linking campus norms and trends to this concept provides a look into the cause and possible path to a solution to such activities as high risk drinking behaviors. Institutions of higher education are responsible for the academic development of their students. They also need to be held responsible for the success of students

outside the classroom because of its impact upon student persistence and the relationship between academic and social development (Astin, 1996; Tinto, 1993). It is critical to pay attention to this dual impact of student success when considering how intentional programming can educate and support students to find meaning and establish values. Providing more opportunities for spiritual development will support holistic growth and help to eliminate negative social behaviors such as binge drinking.

Purpose of the Study

The purpose of this study is to examine if there is a relationship between spirituality and binge drinking habits among college students. While there has been an increased interest in understanding the role of spirituality and spiritual development of college students over the past decade, little research has sought to find a relationship between student spirituality and alcohol use (Wood & Herbert, 2005). There has been even less research on the relationship between spirituality and binge drinking. However, this study hypothesizes that spirituality, which helps to bring answers to life's tough questions as well as purpose and meaning, will impact the level of risky drinking behaviors of an individual.

If there is an inverse relationship between high-risk drinking and spirituality levels, then the response of college administration should be to increase the amount of spiritual programming available to students both formally through new student orientation programs and curricular settings, and through informal opportunities such as co-curricular events in residence halls, student organization events and guest lectures, and personal discussions.

Research Question

The following question guided the research: Is there a relationship between the college students' self-reported level of spirituality and high risk drinking behaviors? To answer this research question, several other issues must be considered:

1. To what extent are spirituality and meaning-making in life important to college students?

2. To what extent are college students seeking opportunities that will help them grow spiritually?

3. What percentage of students consider themselves to be spiritual?

4. To what degree do students who consider themselves to be spiritual engage in binge drinking?

Significance of the Study

This study has important implications to university administrators, co-curricular programming efforts on college campuses, and future research in student affairs and higher education. The results of this study have the potential to be useful for efforts that seek to reduce the percentage of students who engage in high risk drinking. The study also could point to spiritual wellness as a possible arena from which programming should increase because of the possible positive impact upon college student life and personal development.

Because of the ongoing concerns related to the binge drinking habits of college students, university administrators have shown a greater interest in being able to reduce the percentages of those who engage in such a manner. The Amethyst group (Amethyst Initiative, 2008) is one example of the attempts being made to solve this problem. Increased alternative and dry events are becoming more popular and as a result, many fraternities and sororities have also sought to promote healthy drinking behaviors. In 2003, the Genesis Group was formed from a coalition of

38 national and international fraternities and sororities representing over 50% of all undergraduate Greek membership. From this organization came a call to reduce binge drinking on campuses across the nation. ("Consortium of College Greeks," 2003). Unfortunately, there has been little to link the reasons for students to keep from binge drinking and what influences such decision making processes.

Organization of the Study

This study is organized into five chapters. The first chapter serves as an overview of the problem and hypothesis for the study. The second chapter provides a literature review for spirituality in higher education and issues relating to binge drinking among college students. Chapter three outlines the methodology by which the study was administered. Chapters four and five present the results and discussion.

CHAPTER 2: REVIEW OF THE LITERATURE

After many years of pursuing a strong distinction of church from state, public higher education leaders have begun to rethink how the idea of spirituality can enter into academia and not conflict with the intentional separation of the two. With a shift from religious-based education to state-funded universities as initiated through the Morrill Act of 1862 and the impact of social and cultural reform in the mid-1900's, American colleges and universities adapted to the religious pluralism of their multicultural student populations (Chickering et al., 2006). However, clearly defining a difference between spirituality and religion is a key element to this discussion. As student populations have become increasingly diverse, so has the spiritual background and interest of college student bodies. Presently, with the support of research from the Higher Education Research Institute (HERI) at the University of California Los Angeles (Lindholm, 2007), the positive impact of spirituality upon student development and the overall interest in spirituality by students is at the forefront of discussion. Further, with results from 14 years of research by the Harvard School of Public Health College Alcohol Study (CAS; Wechsler & Nelson, 2008), a better understanding of today's binge drinking issues can be understood.

Historical Overview

The first nine American higher education institutions were started by dominant Christian denominations (Chickering et al., 2006). However, even though clergy presidents and faculty led most universities until the mid-nineteenth century, the influence of the church on these

institutions varied from school to school at that time (Chickering et al., 2006; Parks, 2000). Soon thereafter many universities were being founded for the purpose of scientific research, and nonreligious-centered institutions began to differentiate themselves and helped in what was becoming the secularization of American higher education.

Warren Nord wrote that "between the time of the American Revolution and the end of the nineteenth century an educational revolution took place: religion dropped by the wayside as America marched into the modern world" (as cited in Laurence, 1999, pp. 32-33). As higher education continued to conform to cultural and religious diversity, faith-based institutions maintained their spiritual focus. A divide in higher education took shape and institutions that did not identify with a particular denomination maintained a focus upon research and stayed clear of a defining spiritual connection.

Thus, as this separation defined itself over time, a need to provide a healthy outlet for spiritual exploration and discovery on non-faith based campuses took shape. Recent publications regarding personal spiritual wellness among college students describe a process in which universities are seeking a stronger emphasis on the difference between spirituality and religion. Spirituality emphasizes a personal quest for internal development while religion is an outward way of exploring that quest (Astin, 2004; Chickering et al., 2006; Laurence, 1999; Love & Talbot, 1999; Rogers & Love, 2007). Spirituality emphasizes a personal, internal search for meaning and substantiation of values, beliefs, purpose and connection to the world. Religion is a specific outlet from which an individual can practice and act out their spirituality. In a broad sense, higher education has begun to listen to the desires of its faculty and students; spirituality needs to be a supported aspect of teaching and learning.

Research

Spirituality in Higher Education

In a highly regarded study from HERI (Lindholm, 2007), spirituality in higher education is being observed as the college students' search for meaning and purpose. Beginning in 2003, HERI began to look at how students conceive spirituality, how spirituality plays out in their lives, and how universities can more effectively support student development in this arena. Jennifer Lindholm (2007), Project Director of this HERI research study, wrote that students and educators identify spirituality in their own lives as impacting agents of perspective upon academic pursuits.

In another study, Love and Talbot (1999) highlighted five aspects of spiritual development: personal spiritual authenticity, the development of a spiritual focus, an intentional connection to others, significant meaning and purpose in life, and an openness to explore a relationship with a higher power. In these various dimensions is the overriding emphasis upon personal growth in the pursuit of significance and meaning in life. Thus, the interest of wellness programming on a college campus can work to support students throughout the personal identity development process.

Another aspect of personal identity development in college has to do with worldview formation, within which is an opportunity for spiritual formation. "Spirituality," according to Forman's research, "seems to point to the intuitive, non-rational meditative side of ourselves, the side that strives for inner and outer connection and a sense of wholeness" (as quoted in Laurence, 1999, p. 14). As student affairs professionals work to provide curricular and co-curricular education that support personal identity development, worldview formation and personal wholeness take center stage. Also, Astin explained that the "world's problems are not going to be

solved by math and science and technology; they are human problems, problems of beliefs and values" (as cited in Schroeder, 2003, p. 12). Creating better self-awareness, which is often supported through spiritual discovery, will help students understand others and the issues of the world in which they live. Astin (2004) argued that the quest to "know thyself," a basis for liberal arts education, needs to be at the base of human development. Higher education as a whole has begun to refocus its approach to be more concerned with the entire community of educators and learners.

Spirituality has been hard to define and there is possibly no one accepted definition for it (Love & Talbot, 1999; Wood & Hebert, 2005). However, it should be agreed upon that spirituality includes the method by which individuals find significance and meaning in life. Another aspect of spirituality involves increasing one's union with community and the ability to find purpose and direction in life (Love & Talbot, 1999; Wood & Hebert, 2005). It has also been defined as the ability to transcend personal difficulties in life and a belief in the sacredness of life, maintaining the belief that all are spiritual beings (Astin, 2004; Fowler, 1981; Wood & Hebert, 2005). One's spiritual quest in life includes seeking answers to life's mysteries that surround these epistemological concepts. Thus, spiritual programming needs to become more of a focus for college students because of these critical years which are spent maturing and seeking for answers to life's tough questions. For the purpose of this study, spirituality is defined through the lens of spiritual wellness: "Spiritual wellness is about exploring the meaning of life and the lives of others while understanding that not everything can ever be completely understood. It is about developing an appreciation for the depth and breadth of life. The spiritually well person recognizes the relationship between spiritual identity in themselves and others" (What is Wellness, 2008).

Examining how spirituality has been interwoven with student development theory needs to be ongoing in order to find appropriate application. Maslow's (1971) hierarchy of needs explained that an individual's growth peaks at the point in which they become self-actualized. He stated that spirituality was core to each human's nature and that it was part of what gives a person full humanness. Spirituality also can be encouraged or inhibited by the environment within which an individual works and lives (Maslow, 1971). Thus, enhancing the environment in which a student grows developmentally to include aspects of spirituality and self-actualization will provide a foundation from which to build layers of personal meaning and significance. Helping students to understand their responsibilities and roles in the world will help them to make better decisions for their personal well-being and for that of the community that surrounds them. Risky behaviors will discontinue to be an option and individuals will look out for the safety and wellness of their peers as well as for themselves.

In another process by which spirituality can find definition, Fowler (1981) maintained that faith is part of the framework from which meaning in life is developed and established. Fowler's stages of faith later looked at how students develop spiritually. Based upon Perry's stages of intellectual development, Fowler indicated that one's faith development does not have to be based upon religious beliefs, but rather, as borrowed from Paul Tillich's theory of faith, seeks to find what values bring centering in our life. It is that into which we invest that we find the most meaning or at least the elements by which we seek for meaning. Supporting students through the process of understanding personal values, ethics, and responsibility will help to bring together the importance of personal development in light of their own personal spirituality (Chickering et al., 2006). Students need to be able to examine the choices they make each day in light of the effect they will have for them and for others. Pursuits in this regard should include

education that encompasses ethics, community development, social justice, and personal leadership (Astin, 2004).

Binge Drinking in Higher Education

In regards to binge drinking, the CAS assessments have found two areas that have helped to limit heavy drinking levels by college students (Wechsler & Nelson, 2008). One is the demographic makeup and the other is student volunteerism. First, the greater the racial and ethnic diversity of students, the lower the binge drinking rates observed. Also, the more women there were on campus, the lower the rates of binge drinking among males and underage drinkers (Wechsler & Nelson, 2008). Additionally, students on those college campuses that increased student involvement with volunteer opportunities were less likely to be binge drinkers (Wechsler & Nelson, 2008). It is the emphasis upon productive activities and opportunities for students to engage other students as well as the local community that seemed to make the most difference.

There is much more to understand regarding pursuits from colleges to discourage binge drinking. Many prevention programs and research to find methods to effectively reduce binge drinking rates have had varying and non-conclusive results (Pace & McGrath, 2002; Wechsler & Nelson, 2008). Universities often sponsor dry events that provide alternative programming where alcohol is not included. Wechsler and Nelson (2008) analyzed the "A Matter of Degree" (AMOD) prevention program and social-norms marketing efforts. They found that the AMOD program relies heavily upon a campus and local community relationship in order to change the conditions that contribute to heavy drinking consumption. Efforts toward this objective are hard to maintain collaboratively over a long period of time, but Wechsler and Nelson found that successful efforts proved effective for overall prevention. However, outcomes of social norms campaigns returned indifferent results.

A widely used survey used to measure college student sexuality, campus violence, institutional climate, perceptions of alcohol and other drug use, and extracurricular activity involvement is the Core Alcohol and Drug Survey (CORE; Core Institute, 1994). The CORE has 39 questions and takes approximately 25 minutes to complete. It has been widely used since its inception in 1990. The CORE provides information regarding students' alcohol and drug use habits, consequences affiliated with those behaviors, and perceptions of campus norms (Pace & McGrath, 2002). Universities that participate are provided internal and national data. Through the use of the CORE, Stewart (2001) did not find a strong relationship between spirituality and the decision to partake in alcohol and binge drinking behaviors.

Another study that examined the relationship of spirituality and alcohol use among college students utilized the Spiritual Wellbeing Scale (SWBS; Ellison & Paloutzian, n.d.). The SWBS measures perceptions of personal spiritual quality of life. It is a self-assessment of one's relationship with God, sense of life purpose and life satisfaction. The SWBS is a 20 question assessment administered as a paper-pencil instrument and takes approximately 10-15 minutes to complete (Ellison & Paloutzian, n.d.). College students with a higher level of spiritual well-being were found to be less likely to report using drugs and alcohol (Hammermeister & Peterson, 2001).

Wood and Hebert (2005) used the National College Health Risk Behavior Survey (NCHRBS) and Pargament's Meaning Scale to find a link between spiritual meaning and purpose and drug and alcohol use. The NCHRBS was adapted from the Youth Risk Behavior Survey (YRBS) by the Centers for Disease Control and Prevention in order to measure high-risk behaviors of college students including the use of tobacco, alcohol and other drugs, behaviors that impact or result in unwanted pregnancies, unhealthy eating, and overall detrimental physical

lifestyles (Wood & Hebert, 2005). The NCHRBS consists of 29 questions and concentrates on first usage age, frequency of use, and use within the previous 30 days (Wood & Hebert, 2005). Pargament's Meaning Scale (PMS) consists of 20 five-point Likert style questions in which participants self-assess statements of religiousness and spirituality. This survey seeks to measure meaning and purpose in one's life.

Wood and Hebert (2005) suggested that opportunities for students to explore spiritual growth may be a useful tool for drug and alcohol use prevention. Other research also has shown that college students whose spirituality levels increase see a decrease in alcohol and tobacco usage (Leigh, Bowen, & Marlatt, 2005). Nonetheless, much more research is needed to further explore the possible research between the two elements (Wood & Hebert, 2005).

Wechsler and Nelson (2008) supported the notion to target low to moderate drinkers in order to gain the maximum results of lowering alcohol-related harm. They further added that community-based efforts to reduce binge drinking such as AMOD work well with populations who drink less frequently and that binge drinkers are reached best through individual treatment-based efforts. Also important to the discussion regarding programming toward reducing binge drinking are methods that are successful in the rehabilitation process from alcohol abuse (Wechsler & Nelson, 2008).

The most common resource used for alcohol rehabilitation is based upon the twelve-step program created by Alcoholics Anonymous (Hillhouse, 2001). Based upon the belief in a higher being and a strong sense of personal spirituality, personal and communal accountability are both crucial to the success of an individual during the rehabilitation process.

In addition to prevention programs are efforts to educate students about both the possible negative effects of binge drinking and the reinforcement of campus values, norms, and

appropriate behaviors expected of campus community members (Leppel, 2006). Jones and Kern (1999) emphasized the importance of setting the tone for community expectations and normative values that could positively influence the drinking cultures of college campuses if approached in an educating format. The importance of including values, behaviors, and appropriate decision making processes cannot be underestimated. Jones and Kern explained how personal decision making tied to personal health and wellness that emphasize the options of activities other than social drinking can greatly impact binge drinking and other substance abuse issues on college campuses. An increase in the promotion of positive behaviors on college campuses will impact perceptions about socially appropriate behaviors and thus improve upon negative behaviors such as binge drinking (Leppel, 2006).

Professional Practice

Parks (2000) explained that spirituality is intrinsically a part of curricular education as professors infuse their personal faith and values within the syllabi they create and the lectures they share. It is from this fundamental practice within education that the university community can begin to revisit the importance of spiritual exploration in the midst of personal development during college. It is also from this angle that universities can look to the community as a whole to help in the effort to reduce binge drinking rates. Rogers (2003) found that incorporating spirituality in the academic curriculum helps to teach about value-setting and respectable leadership qualities.

According to Lindholm (2007), the HERI research found that more than two-thirds of faculty surveyed acknowledged the great importance of developing a meaningful philosophy of life. Campus administrators, faculty, and co-curricular educators need to lead the charge to collaboratively create environments where students can engage them in conversations of

purpose, values, vocation, and civic responsibility (Lindholm, 2007; Chickering et al., 2006). Parks (2000) explained that the role of the professor, from its original meaning, is to lead out or draw out, hinting at the responsibility to help students bring out the truth in the world and in themselves. It is through this kind of searching that students connect to a spiritual sense of self from worldviews and connect its importance to other aspects of their academics and rest of life.

The impact of spirituality upon students reaches many different domains of wellness. According to HERI (Lindholm, 2007), students self-labeled as spiritual are more likely to find coping mechanisms and develop a sense of peace in times of hardship. Spirituality also was shown to impact the ability to maintain positive physical health, eat a healthy diet, drink less alcohol, smoke less, and miss classes less because of illness. Overall, students who identify themselves as spiritual are more likely to maintain a higher level of personal wellness than those who do not. This information complements other findings on the impact of spirituality upon the college experience and alcohol consumption.

Freitas (2008) wrote that there are also benefits to spirituality in regards to sexual activity. She stated that if universities increased their openness to religion and spirituality, the discussion of sexual excess and sexual restraint would help students to develop an overall healthier view of sexuality. With evidence that binge drinking contributes highly to risky sexual behavior and undesired sexual activity (Freitas, 2008), it can be assumed that students with a higher level of spirituality also have a lower rate of binge drinking and consequently a lower rate of risky sexual behavior.

There are many relationships that can be found when comparing the spirituality of college students with a variety of other social habits in their lives. For the most part, there is a strong connection between healthier lifestyles with personal interests in spirituality and meaning

in life. This study examined this hypothesis against binge drinking habits by examining the spirituality of college students within the context of the National College Health Assessment.

CHAPTER 3: METHOD

This study examined the relationship between spirituality and binge drinking among

college students by analyzing data from the Spring 2009 American College Health Association -

National College Health Assessment II (ACHA-NCHA II) at Ohio State University (OSU). This

chapter examines the method used for the study through an analysis of the assessment's

reliability and validity, the sample for each aspect of the research, and the data collection and

analysis procedures.

Instrumentation

The ACHA-NCHA II is a nationally recognized research survey that collects data about

college student health habits, behaviors and perceptions (ACHA, 2009). This survey is a 30-

minute assessment administered confidentially and electronically. The ACHA-NCHA II is the

leading tool for college health administrators as it provides universities with the opportunity to

measure a wide variety of health issues including alcohol, tobacco, and other drug use; sexual

health; weight, nutrition, and exercise; mental health; and personal safety and violence (ACHA,

2007). Similar to the original ACHA-NCHA, the ACHA-NCHA II survey helps universities and

researchers in determining the student rates for specific health related issues, prioritizing how to

reach specific health needs of students, allocating resources for appropriate programming, and

designing highly effective intervention strategies (Schuh & Upcraft, 2001).

The ACHA-NCHA was first distributed nationally in 2000 and was used until the Spring

2008 data collection was completed (ACHA, 2009). These collections are the largest

comprehensive data set regarding college student health (ACHA, 2009). After a pilot test, the ACHA-NCHA II was first officially administered in the fall of 2008. This change has included a modification of several questions and the addition of new questions for a more thorough look at college student health including new topics of illegal drugs, contraceptive methods, sleep behaviors, self-injury, and other mental health issues (ACHA, 2009).

The ACHA-NCHA II is divided into the following eight subsections: Health, Health Education, and Safety (e.g., "How would you describe your general health?"); Alcohol, Tobacco, and Drugs (e.g., "Over the last two weeks, how many times have you had five or more drinks of alcohol at a sitting?"); Sex Behavior and Contraception (e.g., "Did you or your partner use a method of birth control to prevent pregnancy the last time you had vaginal intercourse?"); Weight, Nutrition, and Exercise (e.g., "How do you describe your weight?"); Mental Health (e.g., "Have you ever been diagnosed with depression?"); Physical Health (e.g., "On how many of the past 7 days did you get enough sleep so that you felt rested when you woke up in the morning?"); Impediments to Academic Performance (e.g., "Within the last 12 months, have any of the following [alcohol use] affected your academic performance?"); and Demographic Characteristics (e.g., "Are you a member of a social fraternity or sorority?"). This research study used one question related to binge drinking as well as the 10 additional questions included in spring 2009 by the OSU Student Wellness Center (SWC) regarding spirituality.

There are a total of 65 questions in the ACHA-NCHA II. With additional questions being asked specifically by OSU to its internal population, the survey totaled 77 questions. The majority of the questions use a nominal scale, such as questions 2 and 3 which ask whether the student has received or is interested in 19 different health related topics from the university. Other demographic questions also use a nominal scale. Other aspects of the survey use Likert-

type scales. Most of the questions added to the survey by the OSU SWC use a Likert-type scale. For the purposes of this study, the items of interest from the ACHA-NCHA II include binge drinking habits and self-perceptions of spirituality.

Reliability and Validity

Reliability is used to explain how accurate specific measurements are in research. An assessment tool that produces similar results when used repeatedly with similar sample populations has a high reliability and better quality of measurement (Trochim, 2001). Validity in research is used to argue if an assessment tool actually meets the expectations of understanding the concepts seeking to be measured. It is the process of determining the quality level of the research being performed (Trochim, 2001).

Results from the ACHA-NCHA are generally consistent with other comparable national databases and surveys of the same population. Data sets used to compare the reliability and validity of the ACHA-NCHA include the College Health Risk Behavior CDC 1995, Harvard School of Public Health 1999 College Alcohol Study, United States Department of Justice: the National College Women Sexual Victimization Study 2000, and previous National College Health Assessments (Leino, n.d.).

Cronbach's Alpha measures the consistency of survey items based upon inter-item correlation. Strong internal consistency results in an Alpha approaching 1.00. According to the ACHA-NCHA User's Manual, acceptable results will have ranges between .4 and .9 and the NCHA range was between .2 and .6 (ACHA, 2004). The ACHA-NCHA has demonstrated an accepted level of inter-item reliability. It can also be concluded that the instrument is reliable and valid in generalizing against the national college student population (ACHA, 2004).

Additional Items

In addition to the standard ACHA-NCHA II questions for the 2009 administration at OSU, 10 questions regarding student spirituality were added by the OSU SWC and Office of Student Life Research and Assessment (SLR&A). The following definition of spirituality is included in the assessment:

> Spiritual wellness is about exploring the meaning of life and the lives of others while understanding that not everything can ever be completely understood. It is about developing an appreciation for the depth and breadth of life. The spiritually well person recognizes the relationship between spirituality and identity in themselves and others. (Spiritual Wellness, 2009)

The questions being asked to understand the spirituality of students participating in the study were added at the end of the ACHA-NCHA II.

Data Collection Procedure

The study was conducted during the 2008-2009 academic school year at OSU, a large university in the Midwest with a reported population of 53,715 students (40,212 undergraduate and 13,503 graduate students). During that year, there were 1355 undergraduate and 2544 graduate international students from over 100 different countries enrolled. Student demographics at OSU include 48% women (25,999), and 23% minority (12,512) (OSU, 2009). The university offers undergraduate and graduate degrees with over 170 majors from 18 different colleges. OSU is a highly regarded public teaching and research institution in the United States and is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools.

SLR&A staff members were responsible for determining the student populations from which to collect the information from the ACHA-NCHA II assessment. The sample included

both graduate and undergraduate students with a desired return of 5,000 completed assessments. The administration of the assessment began on May 8, 2009. Ten thousand randomly selected students were sent e-mails with a link to complete the assessment. E-mail reminders were sent to each student invited to participate three more times over the following three weeks to ensure the highest response rate. Data collection ended on June 8, 2009. Five $75 gift certificates were offered as incentives to randomly selected students who completed the ACHA-NCHA II. All respondents were anonymous.

To collect data using human subjects for this research, the SLR&A obtained approval from the Institutional Review Board for Research involving Human Subjects (IRB) at OSU. I also gained approval from the Indiana State University IRB to perform secondary analyses of the data.

The ACHA-NCHA II was completed electronically, with all responses going into a database maintained by the ACHA. OSU received a raw data file with a built-in codebook for analysis from the ACHA. Included was "the aggregate reference group report and reference group executive summary for the survey period" (ACHA, 2006, p. 6) for use in comparing OSU data to the national sample. The SLR&A then provided the raw data file to me for my research.

Data Analysis Procedure

This research project included conducting a correlation analysis of the existing data source. Through the calculation of a correlation coefficient from the data sets provided from the ACHA-NCHA II survey results, I sought to find a relationship between spirituality and binge drinking. Because I was using questions added in the OSU administration of the ACHA-NCHA II, I could only compare results from binge drinking questions to other survey results as provided

by the ACHA. However, to support the reliability and validity of this study, results from the standard ACHA-NCHA II were compared nationally.

The ACHA-NCHA II administered at OSU for this survey included the following questions related to spirituality:

1. To what extent do you consider yourself to be spiritually active?

2. I participate in the following spiritual activities: Prayer and/or meditation; Personal reflection; Spiritual readings; Journaling

3. To what extent does your spirituality affect your drinking decisions?

4. To what extent do you have an interest in personal spiritual development?

5. To what extent do you actively search for meaning and purpose in your life?

6. How often do you have discussions about the meaning of life with friends?

7. How often do you meet with a spiritual mentor or guide?

The ACHA-NCHA II asked the following question regarding binge drinking:

1. Over the past two weeks, how many times have you had five or more drinks in a sitting?"

The results were analyzed using a correlation analysis to determine the degree to which binge drinking behavior co-varies with a self-assessment of spirituality. A correlation matrix was then created to demonstrate what relationships exist between student spirituality and binge drinking.

CHAPTER 4: RESULTS

This chapter presents the results of this research project. A thorough discussion of the sample will follow. Finally, results from the data analysis will be examined including the correlation between spirituality and binge drinking among college students at OSU.

Participants

The Ohio State University is the largest university in the United States with 53,715 students enrolled during the fall 2008 quarter (OSU, 2009). Participants in this study included 2,124 students, a response rate of 21%. Thirty-five of the respondents did not answer any of the spirituality questions added to the survey. Thus, a sample of 2089 students was included in this research. Men made up 38% of the participants ($n = 803$), women represented 61% ($n = 1271$) of the sample, less than one percent were Transgender ($n = 4$), and 46 respondents provided no answer. Undergraduate students comprised 77% ($n = 1613$) of the sample, 22% ($n = 452$) were graduate students, and 59 respondents provided no answer. The ethnicity of participants was similar to the population of OSU's student body but was slightly overrepresented by White, non-Hispanic and Asian students. Other than gender, the overall demographic of this study was a very close representative of OSU's student body (see Table 1).

Characteristics of Binge Drinkers

Roughly 83% ($n = 1737$) of respondents for this study admitted to consuming alcohol with almost half of them admitting to participating in binge drinking (see Table 2). Raw data from the administration of the ACHA-NCHA II at OSU in Spring, 2009 revealed a variety of

Table 1

Sample Demographics

Demographic	Sample n = 2124		Ohio State University N = 53,715	
	n	Percent	N^1	Percent
Gender				
Men	803	38%	27,716	52%
Women	1271	61%	25,999	48%
Transgender	4	<1%		
Class Standing				
Undergraduate	1613	77%	40,212	75%
Graduate/First Professional	452	22%	13,503	25%
Ethnicity				
White, non-Hispanic	1704	80%	40,044	75%
Black, non-Hispanic	119	5%	3372	6%
Hispanic, Latino/a	53	3%	1389	3%
Asian, Pacific Islander	202	10%	2799	5%
Amer. Indian, AK Native, HI Native	18	<1%	195	<1%

[1]Race/ethnicity data do not include international students and non-respondents

Table 2

Drinking Behaviors

Survey Item	*n*	Percent
Did not drink	349	17%
Consumed fewer than five drinks in the past two weeks	836	40%
Consumed five or more drinks in the past two weeks	901	43%

trends among students who admitted to participating in binge drinking. These students were

analyzed against other high-risk social actions. For example, students who reported to have

participated in binge drinking also had a higher percentage of being involved in a physical fight

over the past 12 months, were sexually touched without consent, and were more likely to smoke

cigarettes and use other illegal drugs within the last 30 days than those who did not. This is

notable because binge drinking is typically associated with risky sexual behaviors, sexual assault,

and use of other drugs (Broadwater et al., 2006; Jones & Kern, 1999; Leppel, 2006; Wechsler et

al., 2002).

According to the findings of Harvard Public School of Public Health's national College

Alcohol Study Surveys from 1993-2001 (Wechsler et al., 2002), women have made up between

57-63% of binge drinking participants and 74-80% were white, non-Hispanic. At OSU, 54% of

students reporting binge drinking were female and 87% were White, non-Hispanic and the

average level of schooling among binge drinkers was 3rd year undergraduate (See Table 3).

Table 3

Comparison between Binge Drinking and Non-Binge Drinking Students on Selected Items

Survey Item	Did binge drink $n = 901$		Did not binge drink $n = 1185$	
	n	Percent	n	Percent
Involved in a physical fight over the past 12 months	111	12%	37	3%
Were sexually touched without consent	85	9%	57	5%
Smoked cigarettes	284	32%	90	8%
Use illegal drugs	275	31%	71	6%
Men	409	45%	389	33%
Women	486	54%	784	66%
White, non-Hispanic	783	87%	529	45%
Average level in schooling	3rd year undergrad	n/a	3rd year undergrad	n/a

Survey Responses

This study examined the spirituality and binge drinking levels of college students. In order to specify a student's level of spirituality, the 10 questions regarding spirituality added by OSU were used to determine a spirituality scale. Four of these questions focused upon the following spiritual activities: prayer and/or meditation, personal reflection, spiritual readings, and journaling. The other six questions referenced personal interest in general spirituality by seeking the level to which students considered themselves to be spiritually active, how

spirituality affected their drinking decisions, personal interest in spiritual development, to what level they seek for meaning and purpose in life, the frequency of discussions about the meaning of life with friends, and the frequency of meeting with a spiritual mentor or guide. Answers to these ten questions were then interpreted through the lens of a spirituality scale ranging from 1.00 – 3.00.

Spirituality Scale

When examining the data to determine if there is a correlation between spirituality and binge drinking, I created a student spirituality scale ranging from 1.00 to 3.00 based on the 10 questions regarding spirituality added to the ACHA-NCHA II by OSU. Half of these questions had a three-point scale with possible answers depicting participation in a spiritual activity as often, sometimes, or rarely. Scores of *rarely* were assigned a value of 1, *sometimes* were assigned a value of 2, and *often* were assigned a value of 3. The other half of the spirituality questions added to the ACHA-NCHA II had a four-point scale with possible answers of very much, moderately, very little, or not at all. For these items I combined the *not at all* and *very little* answers and assigned them a score of 1. Answers of *moderately* were assigned a value of 2 and those of *very much* were assigned a 3. Thus, a three-point spirituality scale was created with one being the lowest score and three being the highest.

Binge Drinking Scale

I also created a binge drinking scale to measure the level at which students participated in binge drinking. Responses from those students who stated that they did not consume alcohol were assigned a value of 0. Also, responses from those students who stated that they consumed alcohol, but did not participate in binge drinking were assigned a value of 0. However, responses indicating participation in binge drinking once in the past two weeks before taking the NCHA-

ACHA II were assigned a value of 1, binge drinking twice in the past two weeks was assigned a value of 2, and so forth up to 10 times with a value of 10.

<h2 style="text-align:center">Results</h2>

According the results from this study, when averaging the responses to each spirituality question by all students, the results ranged from 1.17 to 2.00 (see Table 4). Students who did not participate in binge drinking averaged a spirituality score of 1.24 to 2.08. Students who did participating in binge drinking averaged a spirituality score of 1.08 to 1.90 (see Table 4). For all of the 10 questions regarding spirituality added to OSU's administration of the ACHA-NCHA II, there was an average margin of difference of .23 in average spirituality scores between students who did participate in binge drinking and those who did not. Students who participated in binge drinking had a lower score in spirituality.

The correlation analysis conducted on the data for this study interpreted the results from the questions concerning spirituality added to the ACHA-NCHA II by OSU. These questions that sought to determine student spirituality were then examined against the one question in the NCHA-ACHA II that inquired about binge drinking behaviors. The results of this specific question, "Over the past two weeks, how many times have you had five or more drinks in a sitting?" yielded the following three different types of answers: students who did not drink at all, students who consumed fewer than five drinks in a sitting within the past two weeks, and students who consumed five or more drinks in one sitting within the past two weeks.

Table 4

Mean Responses of Spirituality Questions

Question	Non-binge Drinkers		Binge drinkers		All students	
	M	*SD*	*M*	*SD*	*M*	*SD*
To what extent do you consider yourself to be spiritually active?	1.80	1.79	1.52	1.65	1.68	1.74
I participate in the following spiritual activities: Prayer and/or meditation	1.93	1.92	1.66	1.82	1.81	1.89
I participate in the following spiritual activities: Personal reflection	2.08	1.86	1.90	1.84	2.00	1.85
I participate in the following spiritual activities: Spiritual readings	1.46	1.75	1.18	1.48	1.33	1.66
I participate in the following spiritual activities: Journaling	1.25	1.58	1.17	1.47	1.22	1.54
To what extent does your spirituality affect your drinking decisions?	1.49	1.76	1.13	1.38	1.33	1.65
To what extent do you have an interest in personal spiritual development?	1.93	1.81	1.66	1.74	1.81	1.80
To what extent do you actively search for meaning and purpose in your life?	2.08	1.82	1.83	1.78	1.97	1.81

Table 4 continued

Question	Non-binge Drinkers		Binge drinkers		All students	
	M	*SD*	*M*	*SD*	*M*	*SD*
How often do you have discussions about the meaning of life with friends?	1.80	1.73	1.63	1.68	1.73	1.71
How often do you meet with a spiritual mentor or guide?	1.24	1.61	1.08	1.37	1.17	1.53

Table 5

Percent Responding "Often" or "Sometimes" to Spiritual Activities Items

Item	*n*	Percent
To what extent do you consider yourself to be spiritually active?	1072	51%
I participate in the following spiritual activities: Prayer and/or meditation	1019	49%
I participate in the following spiritual activities: Personal reflection	1301	62%
I participate in the following spiritual activities: Spiritual readings	471	23%
I participate in the following spiritual activities: Journaling	323	15%
To what extent do you have an interest in personal spiritual development?	1190	57%
To what extent to you actively search for meaning and purpose in life?	1362	65%
How often do you have discussions about the meaning of life with friends?	1195	57%
How often do you meet with a spiritual mentor or guide?	486	23%

Students Engaging in Spiritual Activities

As demonstrated in Table 5, students had strong responses with engaging in various spiritual activities. More than half (51%) of the respondents stated that they either sometimes or often considered themselves to be spiritually active and 57% stated that they either sometimes or often have an interest in spiritual development. Further, 65% responded that they actively seek purpose and meaning in life. According to the data from this research (see Table 4), there was a large portion of the general population of students that expressed active engagement in prayer and/or meditation ($M = 1.81$, $SD = 1.89$), personal reflection ($M = 2.00$, $SD = 1.85$), and have discussions about the meaning of life with friends ($M = 1.73$, $SD = 1.71$).

Correlation of Binge Drinking and Spirituality

The next step in examining a possible correlation was to compare student spirituality to binge drinking. It was determined through a Pearson correlation that there is a weak but significant and negative correlation between student spirituality and binge drinking ($r = -0.2$). Significance was based on a two-tailed test ($p < 0.00$) (see Table 6). Although the correlation is weak, it is not by chance. This suggests that there exists a negative correlation between student spirituality and binge drinking in that higher spirituality is related to lower levels of binge drinking.

Table 6

Correlation of Spirituality and Binge Drinking

Spirituality	Spirituality	Binge Drinking
Correlation	1.0	-0.2
Significance (2-tailed)		0.000
Binge Drinking		
Correlation	-0.2	1.0
Significance (2-tailed)	0.000	

CHAPTER 5: DISCUSSION

The purpose of this study was to determine if there is a correlation between spirituality and binge drinking among college students. Specifically, the following questions were used to guide the research project:

1. To what extent are spirituality and meaning-making in life important to college students?

2. To what extent are college students seeking opportunities that will help them grow spiritually?

3. What percentage of students consider themselves to be spiritual?

4. To what degree do students who consider themselves to be spiritual engage in binge drinking?

These research questions not only guided this work but also helped to confirm results with comparative research.

The results of the ACHA-NCHA II administered at OSU in the spring of 2009 indicated that there was a significant and negative correlation between spirituality and binge drinking. Results from the data show that students at OSU express involvement in personal spirituality (see Table 4). According to the questions added by OSU to the ACHA-NCHA II, a high percentage of students expressed participation in opportunities that would help them grow spiritually such as praying and/or meditating and personal reflection, and engaging in personal reflection with answers of sometimes or often in areas (see Table 5). The majority of respondents also

commented that they considered themselves to be spiritually active. Of those respondents, just under half did not participate in binge drinking.

The results of this research concluded that although there is a correlation, students who participated in binge drinking and those who did not both had strong responses in spiritual activities (see Table 5). Thus, in its attempt to explain a correlation between the two factors studied, the data does not explain causation. Does a higher spirituality level in students cause less binge drinking or does a decrease in one's spirituality impact a higher binge drinking participation rate? These are some of the issues that need to be examined further through additional research. My original hypothesis proposed that higher spirituality among college students would result in a lower binge drinking rate. The correlation discovered through this research should impact the discussion of the importance of increased spiritual programming on college campuses and its possible positive effects upon general drinking decisions in general and binge drinking in particular.

Chapter Five will continue an interpretation of the results from this study by comparing the results to previous research. In addition, the implications for further practice and further research will be explored. Finally, limitations to the study will be reviewed and final conclusions will be presented.

Interpretation of Results

According to the responses from the ACHA-NCHA II (ACHA, 2009) it is clear that students do have an interest in personal spirituality as demonstrated by the HERI (Lindholm, 2007). It is also straightforward as previously mentioned that binge drinking is a problem for college students. Again, the primary goal of this research project was to determine if there is a correlation between spirituality and binge drinking. If this is the case, it would be logical to

increase programming efforts that encourage spiritual growth in order to have a direct impact upon issues related to binge drinking and other high-risk behaviors on college campuses. The results of the findings are interesting as they should be able to help guide further research on this particularly important dynamic within college student wellness.

The first question in this research asked, "To what extent are spirituality and meaning-making in life important to college students?" This particular question relates very closely to the next two questions posed for this research examined below. It is an overarching focus determining how extensive the interest is that students have in personal spirituality. Factors that contribute to this determination include but are not limited to involvement in a variety of spiritual activities such as prayer and/or meditation, personal reflection, spiritual readings and journaling, personal interest in personal spiritual development, the extent to which students expressed they search for meaning and purpose in life, the frequency of discussion about the meaning of life with friends and how often students met with a spiritual mentor or guide. With 65% of students expressing their active search for meaning in life and 51% considering themselves to be spiritually active, there is a strong representation of individuals that place an importance upon spirituality and meaning-making in their lives.

The second question for this research asked, "To what extent are college students seeking opportunities that will help them grow spiritually?" The NCHA-ACHA II revealed that just over 57% of students have an interest in personal spiritual development (see Table 5). Closely related to research question number two, it is evident that college students are interested in ways to further their spiritual development. The results of the four spiritual activities posed in the questions added to the NCHA-ACHA II show an active engagement in spiritual activities, especially in regards to prayer and/or meditation and personal reflection (see Table 5).

The next question for this research asked, "What percentage of students consider themselves to be spiritual?" The data from this research showed that 51% of the student population considered themselves to be spiritually active. With the 10 questions added to the ACHA-NCHA II was the definition of spiritual wellness as determined by the SWC at OSU that stated that "spiritual wellness is about exploring the meaning of life and the lives of others understanding that not everything can ever be completely understood. It is about developing an appreciation for the depth and breadth of life. The spiritually well person recognizes the relationship between spirituality and identity in themselves and others." With this definition, a strong percentage of students identified with the idea that their lives are actively pursuing meaning in life for one's self and for those around them. This sense of engaging spirituality in community with others opens the idea of collaborative responsibility and pursuit in which over half of the student population can relate.

The final questions posed for this research asked, "To what degree do students who consider themselves to be spiritual engage in binge drinking?" A student spirituality scale as determined through the questions added to the ACHA-NCHA II at OSU was compared to the questions that asked for student involvement in binge drinking. One result of this study was that student spirituality levels do seem to drop slightly as their involvement with binge drinking increases. What overshadows this slight trend is the fact that this study reveals that binge drinking is present among all types of spirituality levels (high, medium, and low). However, according to this study, specific aspects of spirituality seem to have a greater correlation to binge drinking participation (see Table 4). Students who did not participate in binge drinking, regardless of whether they consumed alcohol, had a significantly higher spirituality score than those that did participate in binge drinking. Further, the more students participated in binge

drinking, the more the corresponding spirituality score dropped with the exception of the highest levels of participation (7-10 times) which only represented less than 3% of the entire sample.

What this means is that the negative correlation of spirituality and binge drinking implies that higher spirituality yields less binge drinking. Or, it could be inferred that an increased participation in binge drinking yields a lower spirituality level. This correlation is significant enough to pursue a greater understanding of how the spirituality of college students impacts binge drinking as well as other risky social behaviors. Because there is such a high interest in general in personal spirituality, further research along these lines will have a greater impact upon programming efforts to educate and motivate students to make better decisions for themselves.

Comparison to Previous Research

This study revealed that there is a correlation between student spirituality and participation in binge drinking. In order to effectively realize its significance to current and future research, it must be compared to previous research. Overall, this study confirms similar studies that have tried to examine the relationship between spirituality and alcohol consumption. It also supports research that has encouraged a more specific examination of binge drinking and the spirituality of college students.

In a study by Brown et al. (2007) that examined religiousness and alcohol, it was found that religious beliefs is one of the biggest reasons why college students do not drink heavily. The study also commented on findings that religiousness should not be measured by one variable of a specific lifestyle choice such as alcohol consumption. Religiousness is multi-faceted and goes beyond one's beliefs, denomination affiliation, personal experience and commitment, and well-being. In fact, Brown et al. found that intrinsic religiousness factors most into alcohol consumption.

This study, which measures a variety of intrinsic spiritual practices of an individual while looking for a correlation between spirituality and binge drinking, confirms the findings of Brown et al.'s (2007) study in that there does seem to be a relationship between spirituality and alcohol consumption. Although differences between religiousness and spirituality should be explained and not assumed, it is interesting to see even a small complement among such studies. Furthermore, Brown, et al. added in their findings that there seems to be very minimal differences between religiousness and spirituality.

This study also complements much of the research from the HERI's Spirituality in Higher Education project (Astin & Astin, 2004) that stated that students with a high interest in spirituality and active participation in opportunities to grow spiritually, such as meditating and journaling, consume less alcohol in general. HERI's research on the Spiritual Life of College Students (Astin & Astin, 2004) found that 80% of students have an interest in spirituality, 76% search for meaning/purpose in life and 69% of students pray. Similarly, my research found that 63% of students participated in prayer and/or meditation and over 57% have an interest in personal spiritual development (see Table 5). Much more than half of all OSU participants expressed involvement in specific spiritual activities and an interest in personal spiritual development. This is significant in realizing the possible impact of spirituality upon all other aspects of personal wellness.

Implications for Future Practice

The results of this study have implications for several audiences. Because the content that was studied has to do with college student wellness, student affairs professionals who oversee wellness programming will be able to use these data in addressing the binge drinking issues on their campuses. It is also important for student affairs professionals to pay attention to the data

that reveal the high level of spirituality among today's college students. More specifically, student affairs professionals who work with faith-based student groups and organizations may be interested in these findings to further research if there are any relationships between spirituality and alcohol related decisions. Also, college administrators who have joined the fight against high-risk social activities such as binge drinking may be able to use the results from this study to find a relationship between the interests that college students have in their personal spiritual journey with other aspects of their lives. As a result, a closer look at the impact of spiritual support should be examined further and more specifically, the direct relationship that spirituality has upon student decisions to participate in binge drinking should be further studied.

Policy Implications

The Amethyst Initiative (2008) is a collaboration of university presidents and other administrators seeking to change the legal drinking age from 21 to 18. The Amethyst Initiative has primarily existed for the purpose of helping to solve the problem of high risk drinking behaviors on college campuses. The website associated with the Amethyst Initiative expresses their desire to invite new ideas for ways to help students make better and more responsible decisions about alcohol consumption. Members of the Amethyst Initiative also pledge to play constructive roles in the discussion of solving the high risk-drinking problem that face our campuses. The results of this study provide an interesting aspect to the ongoing discussion of the Amethyst Initiative. With a correlation between spirituality and binge drinking, perhaps a wider discussion regarding preventative measures to binge drinking should take place. The Amethyst Initiative's philosophy takes into account the entire student population on any given campus and strives to change the general culture of drinking rather than target specific groups such as Greek life, student athletes or students living on-campus. Thus, alternative approaches to this same

philosophy, such as increasing spiritual and other wellness programming, for the purpose of influencing and educating about drinking among college campuses may have just as big if not a bigger influence than the controversial possible results of changing back the legal drinking age to 18.

Another opportunity that campuses have to utilize the findings from this study is to use an aspect of spiritual wellness as part of the consequences given to students who violate alcohol policies. It is common to penalize students via a monetary fine or through mandatory community service hours as a result of violating alcohol related policies. More serious cases may include legal issues and counselor assessments with recommendations for additional treatment. Alternatives to lower level violations to high-risk drinking behaviors might include attending spiritual wellness programs or participation in a mentoring program with peers or members of faculty and administration.

Programming

Student affairs professionals who are looking to increase programming that provides education and opportunities for spiritual development may be interested in teaming up with faith-based student organizations. Incorporating a variety of these student organizations into residence hall programming, new student orientation, or other wellness programming throughout the academic year can not only build better relationships across campus, but again provide opportunities for spiritual development for students who may not be otherwise exposed to such groups and events. These opportunities can be easily integrated into passive programming in the residence halls through bulletin boards on various floors and normative programming informing students of the spiritual interests of college students and the related research findings on spirituality and alcohol abuse. Other possibilities include more formal wellness programs

teaching students about spiritual wellness including such activities as meditation and reflection, yoga classes, personal outdoor retreats and interfaith dialogues or healthy debates on issues of concern and interest.

New Student Orientation

Most college campuses provide an orientation for new students each term and especially in the fall. It is quite typical to provide information about social opportunities on campus, academic support, and even education programs such as making good decisions regarding alcohol and sexual health. Spiritual programming could be easily tied into these orientation programs. Because research shows that over 80% of college students are interested in spirituality, this kind of a focus would probably be well accepted and of much interest. This is an important time during a student's transition into the college culture. It is an opportunity for student affairs professionals to provide education about what services are available on campus. It also provides an opportunity to provide education about norms and acceptability by the student body for personal spiritual development and exploration. Connecting the importance of wellness with student success opens the door to the possibilities of how spiritual wellness impacts drinking decisions.

Because orientation is an important part of the initial transition process for many students, the opportunity to add a spiritual element to wellness programming at this point can have a lasting impact. Helping students discover how they and their new peers think differently regarding a variety of topics such as building relationships, sexual wellness, and drug and alcohol abuse will have a direct connection to how they practice their faith and what elements of spirituality they want to or do engage in on a regular basis. This can be eye opening for many and help to provide a safer environment in which they can continue their own personal spiritual

interests. Further, sharing data that informs students from proven research, especially from HERI's Spirituality in Higher Education (Astin & Astin, 2004) findings will serve as a solid base from which students can understand their own role and beliefs in college when compared nationally as well.

<div align="center">**Implications for Future Research**</div>

Research completed by Weitzman and Nelson (2004) found that students have a difficult time perceiving binge drinking as a problem for themselves and that motivation to stop drinking is low. As mentioned previously, Weitzman and Nelson suggested a prevention approach that focuses on the community at large rather than a small population of students that express more extreme behaviors such as frequent binge drinking. Following this logic provides an opportunity for college administrators to look at trends among low-risk drinking behaviors and the impact that programming focused toward that specific population might have upon the rest of the community at large. Thus, examining how spirituality affects the largest percentage of the student population might have larger positive results when attempting to change the drinking culture as a whole.

Additional research should also explore binge drinking and its relationship with other facets of spirituality in order to examine specific variables that have the greatest impact upon the choice to participate in binge drinking. Because the college years are ones of personal development and discovery, a qualitative study on the direct correlation of spirituality and binge drinking may also produce new outcomes. Interviewing students with varying spirituality levels and their level of participation in binge drinking may reveal more direct cause and effect relationships between the two, if any. A more in depth analysis of each spiritual activity would

also be a way to further this research and could possibly help to display which aspects of spirituality have the greatest influence upon personal drinking decisions.

Further research that analyzes specific demographic categories such as the correlation of spirituality and binge drinking by gender, race, or age would also complement this study. Determining the differences among these demographics could reveal specific patterns of binge drinking or personal spiritual interest and growth in the college years that would be influential on the discussion of prevention efforts or educational programming.

There is also a strong emphasis of spirituality among substance abuse recovery programs. However, we know little about the direct relationship between substance abuse and spirituality. More research needs to be conducted by drug and alcohol researchers regarding individual spirituality and specific variables that may impact the choice to participate in high-risk behaviors such as binge drinking.

It would be appropriate to consider adding spirituality questions to future editions of the ACHA-NCHA II since spirituality is a very important aspect of student wellness and has been at the forefront of new research over the past five years. Future research could then include similar data comparison to results from other types of universities including faith-based institutions, community colleges, and other private universities. In considering what impacts binge drinking on college campuses, it would be beneficial to be able to compare data to a variety of school settings including other large public institutions, small private institutions as well as schools with rules that prohibit drinking in general and provide spiritual development to their students in an expansive manner.

Curbing the overall abuse of alcohol consumption as demonstrated through binge drinking is a difficult task. However, it can be presumed that the participation rate in binge

drinking also shows a small difference between students who have a higher level of spirituality than those who do not. Although causation cannot be assumed, incorporating opportunities for personal spiritual wellness programs into the experiences of campus life including service and meeting with a mentor could have positive effects.

Limitations of the Study

This study was limited to college students who attended a large, public, Midwest university. The study's sample was representative of the student population on its campus. There was not any information on individual affiliation to campus ministries, personal religious background experiences, or other spiritual biases of participants that could have been an impact upon student responses. Also, there was a larger percentage of female students who responded to ACHA-NCHA II than is represented by the student body at OSU. A more equal representation of men and women might provide a more balanced response for spirituality and binge drinking.

Any correlation between spirituality and binge drinking from this study seems to be complicated by the fact that a spirituality score was created through a limited definition of what encompasses individual spirituality levels. A definition of spirituality was given to students as part of the assessment but they were still left to decide how to measure their personal level of interest and pursuits. A more dynamic spirituality assessment would have been ideal in order to explore more extensively the ways individual or a grouping of variables impacts a student's decision to participate in binge drinking.

Overall, the measures of this study were reliable for the sample with just a few exceptions. The scale of answers for the 10 spirituality questions contained both a 3-point and 4-point scale. It would have been preferable to have them all be the same scale rather than

adjusting the 4-point scale to match the 3-point scale. Because of the added questions measuring spirituality, comparison was only internal and not on a national scale.

In addition, the statistical analysis performed for this research was narrow in scope. More specific analysis of each spiritual element would further the findings and reveal more specific results of the correlation between spirituality and binge drinking among college students. Finally, this research is the result of a correlation study and thus one cannot infer or assume causation. It should be concluded that this study is valid and reliable and can be used for future research and professional practice.

Conclusion

It is my desire that this research will promote future study on the impact that binge drinking and spirituality has upon college students. More research is needed to find other possible relationships to the decision to participate in binge drinking and positive programming efforts to reduce the amount of binge drinking on our college campuses. This information will play a major role in guiding student affairs professionals and college administrators in the policies that impact binge drinking and the efforts to positively impact the lives of students during their college experience. Despite the limitations described above, the results of this research are important to the conversation in higher education regarding binge drinking and the issues associated with solving the problems that binge drinking continues to have upon students, student life and the greater university community.

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