Examining spiritual development in collegiate athletes participating in individual and team sports

Jessica Lauder Clarke
Louisiana State University and Agricultural and Mechanical College, jessicalauder@hotmail.com

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EXAMINING SPIRITUAL DEVELOPMENT IN COLLEGIATE ATHLETES PARTICIPATING IN INDIVIDUAL AND TEAM SPORTS

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy

in

The Department of Educational Theory, Policy & Practice

by

Jessica Clarke
B.S., University of Louisiana at Lafayette, 2003
M.Ed., University of Louisiana at Lafayette, 2006
May 2010
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Studying the spiritual development of collegiate student-athletes has empowered me with a greater ability to stress the importance of holistic education and the knowledge to integrate holistic practices into my daily interactions with student-athletes. The time spent researching spiritual development and conducting this study has given me a greater understanding and appreciation for the works of the leaders in this field. No college experience is completed in the classroom alone, and truly understanding one’s search for meaning and purpose in life is critical in the holistic developmental process. Having this opportunity to combine two things I value greatly; spirituality and student-athletes, has made this endeavor more meaningful than I could have ever imagined. Despite the nearly impossible task to acknowledge all who have assisted me throughout my educational career, there are those whose assistance and inspirations have been invaluable on this journey.

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ABSTRACT

The purpose of this explanatory study was to examine levels of spirituality self-reported by collegiate student-athletes participating in individual and team sports. Student-athletes’ levels of spirituality were measured using Astin’s (2004) College Students’ Beliefs and Values Survey (CSBV). Conceptually, this study was grounded in the works of Fowler (1981) and Parks (2000), leading researchers in measuring spiritual development.

The sample of student-athletes was taken from the University of Louisiana at Lafayette, a large, doctoral granting, high research activity, NCAA Division I institution. The data for this study were collected at the end of the spring semester on April 27, 2009 at a presentation on the balance between “student” and “athlete” with a particular focus on life after athletics in terms of career choices. The CSBV survey was administered prior to the speaker’s presentation. Of the 338 student-athletes who attended the presentation and were given a survey, 226 completed the CSBV survey and 200 were included in the study.

Student affairs researchers have recently begun to focus on the roles of religion and faith as legitimate areas for analysis (Love & Talbot, 1999; Love, 2001; Chickering et al., 2006). With calls from UCLA’s Higher Education Research Institute and Chickering et al. (2006) to research trends in contemporary college students’ spiritual development processes, the time was ripe to examine the self-reported levels of spirituality of student-athletes. While results of this study were not statistically significant in regard to finding differences between groups of student-athletes participating in team and individual sports, findings indicating student-athletes are developing spiritually in college were significant.

Student-athletes in the current study reported higher mean scores in half of the subscales measured by the CSBV survey as compared to Astin’s (2007) original sample population of
college students nationwide. This particular finding is critical to this study, in that it solidifies the fact that student-athletes are developing spiritually and reporting higher mean scores than the average student body. Implications resulting from this finding include a need for higher education administrators to provide opportunities for spiritual development to collegiate student-athletes and to monitor this developmental process throughout student-athletes’ collegiate careers.
CHAPTER 1
INTRODUCTION

Rationale

“College is a critical time when students search for meaning in life and examine their spiritual/religious beliefs and values” (Bryant, Choi, & Yasuno, 2003, p. 726). Although spiritual development theorists have recognized the need for spirituality to be included in an individual’s higher education experience, many academics are struggling to determine and define the role of spirituality in higher education. Research indicates, however, many students experience spiritual growth in college (Bryant et al., 2003). In a national study of college students’ search for meaning and purpose, Astin (2004c) found college students exhibit high levels of spiritual engagement with over half noting the importance of incorporating spirituality into their lives (58%), the majority claiming all people are spiritual beings (77%), and 71% specifying their personal spiritual strength is intensified by believing in a higher power.

Spirituality and Religiousness

Spirituality and religion have often been utilized in similar circumstances, even as early as 1944 when English Parliament decided to use the word “spirituality” as opposed to “religion” when wording the British 1944 Education Act in an effort to avoid negativity associated with “religion” (Priestly, 1985). Roehlkepartain, King, Wagener, and Benson (2006) describe the ongoing debate over the meaning of spirituality and religion noting the fundamental dispute is “a definitional issue” (p. 4). In the context of recent higher education literature, religion deals with the rituals and practices associated with a religious institution, such as church membership, attendance, and commitment to the belief systems of a particular church or religious institution (Zinnbauer et al., 1997). Religion has also been defined as the degree to which students participated in organized religious services, conversed about religion, engaged in religious clubs
or organizations, and prayed or spent time meditating (Bryant et al., 2003). Since these definitions for religion may be ambiguous due to the use of the word “religion” within the definitions, research in other fields of study were also examined. Zinnbauer et al. (1997) echo this confusion created by researchers’ attempts to define these terms in that they are often inconsistently defined in literature. Hart (2003) defines religion as “offer[ing] concepts of a supreme being and humans, sin and salvation, doctrine and dogma” (p. 171). In a study conducted by Hay and Nye (2006), participants associated religion with publically common ideals such as “churches, mosques, Bibles, prayer books, religious officials, weddings, and funerals” (p. 19).

Conversely, spirituality refers to one’s search for meaning or purpose in life. In the context of higher education, spirituality can be defined as the values one lives by, an understanding of where one comes from and one’s purpose for existence, and the experience of connecting to others (Astin, 2004). Hart (2003) stresses the relational aspect of spirituality, defining it as “the very personal and intimate expression of [one’s] relationship with the Divine” (p. 173). Johnson, Kristeller, and Sheets (2004) ascertained, “Spirituality is often connected to things like meaning in life, which can be an entirely secular affair, or meditation, which can also be divorced from any specific religious context” (p. 3). The inclusion of meditation in this definition for spirituality contradicts the exclusivity to Bryant et al.’s (2003) definition for religion which also includes meditation. The confusion in defining spirituality is noted as being possibly more obscure today as Western countries seek to distinguish spirituality from religion (Hay & Nye, 2006). Nevertheless, differentiating between these two constructs was critical for the purpose of this study, as the focus was on spirituality rather than religiousness in the context of higher education.
In the context of this study which relied on a measurement instrument grounded in Judeo-Christian beliefs, one should note that just as spirituality is independent of the ritualistic and church-bound authority often associated with religion, spirituality is not solely a Western ideal. Commonalities associated with searching for meaning or purpose through spiritual development are also found in Eastern religions such as Buddhism, Confucianism, Hinduism, and Islam to name a few. Fowler’s (1981) faith development theory was also applied to individuals of faiths other than those grounded in Christianity, and found his theory was applicable to measuring spiritual development in these individuals (McDargh, 2001). Spirituality has also been recognized as a factor in promoting health and healing apart from an individual’s religious denomination (Wills, 2007). Regardless of whether or not one is referring to spirituality in the context of searching for meaning, measuring spiritual development, or promoting health and healing, research indicates spirituality is not bound to Western ideologies.

Role of Spirituality in Higher Education

Growing attention to spirituality in higher education can be credited to a variety of influences on college campuses including the value of learning as opposed to teaching, learning communities established in freshmen seminar courses which encourage students to search for deeper meaning and purpose, and service learning initiatives which provide students with opportunities to experience connectedness and personal reflection (Astin, 2004). Service learning initiatives provide students with an opportunity to receive college credit while participating in service projects benefitting the local community. As part of the course requirements, students often reflect upon the project in an attempt to comprehend course content, appreciate the act of service, and develop a heightened awareness of civic responsibility (Bringle & Hatcher, 1996). An increase in service learning initiatives has contributed to growing attention to spirituality in higher education (Astin, 2004; Bryant et al., 2003; Love & Talbot, 1999). Particularly, the
connectedness and personal reflection experienced during service learning initiatives have been found to increase spirituality (Astin, 2004).

Fragmentation and disconnect are visible characteristics exhibited by students and faculty on most college campuses as departments and divisions remain separated and students and faculty are encouraged to function as individuals (Allen & Kellom, 2001). Emphasis on materialism in higher education contributes to this disconnect (Astin, 2004). Specifically, Astin (2004) presupposes higher education administrators’ focus on enrollment figures, funding, incoming students’ academic qualifications, faculty publication rates, and public rankings attribute to the creation of an environment in which academics desire a greater sense of wholeness in their personal lives as well as in their institutions. Similarly, Cushman (1990) describes the “empty self” that has emerged after World War II in the United States as a result of a lack of community, customs, and collective meaning (p. 600). The empty self seeks to compensate for these lost attributes in order to fill the void (Cushman, 1990). The promotion of spiritual development on college campuses may enable students and faculty to connect on deeper levels, discover meaning and purpose in life, and overcome disconnect that currently exists in today’s higher education institutions (Astin, 2004).

Holistic Education

Furthering Astin’s (2004) assertion that attention to spirituality is growing in higher education, it is important to examine the purpose of higher education, specifically holistic education. What is the purpose of education? Is it to prepare students to seek their individual purposes and those of the world, or is it to train students for future employment opportunities upon graduation (Murphy, 2005)? Student-affairs advocates, Allen and Kellom (2001), speak of spiritual development as “the ‘spiritual dimension of a person’s life,’ or that part of the holistic approach to student development” (p. 48). “The main aim of education should be to produce
competent, caring, loving, and lovable people,” and “accomplishing this goal requires discussion of existential questions including those of a spiritual nature” (Noddings, 1995, p. 368).

Holistic education is grounded in the principle that, at some level, “everything is connected to everything else” (Clark, 1990, p. 47). Transforming fragmented perspectives into integrative perspectives in terms of viewing individuals and relationships is the fundamental purpose of holistic education (Clark, 1990). Connectedness between faculty, students, and institutions can increase when the role of spirituality on college campuses is emphasized; thus creating a sense of community that will deteriorate disconnect that many students and faculty currently experience and will aid students in living more meaningful lives (Astin, 2004). Ultimately, holistic education should be one of the aims of higher education (Allen & Kellom, 2001; Astin, 2004; Clark, 1990; Murphy, 2005; Noddings, 1995) and accomplishing the goal of administering holistic education is not achieved when spiritual development practices are ignored (Love & Talbot, 1999) or when these types of initiatives are not the community consensus.

In order to facilitate opportunities for spiritual awareness and development, higher education administrators need to commit to providing holistic education experiences for college students. Educators should encourage students to seek authenticity and spiritual development in their lives (Chickering, Dalton, & Stamm, 2006). Why should higher education administrators care about providing opportunities for college students to pursue wholeness and develop spiritually? Promoting college students’ spiritual development aids the promotion of social consciousness and may encourage individual students to discover a greater sense of meaning and purpose both socially and academically (Astin, 2004). Any programs that discuss spirituality and spiritual development have the potential to “strengthen students’ educational gains” (Capeheart-Meningall, 2005, p. 35). Specifically, many positive outcomes have been associated with
spirituality including improved physical health, a sense of optimism, increased charitable involvement, empathy for others, cultural awareness, aspirations for pursuing graduate level degrees, and satisfaction with one’s overall collegiate experience (Astin & Astin, 2004).

Spirituality as a Healing Strategy

In addition to holistic education being an aim of higher education with spirituality serving as a component of holistic education practices, researchers should further examine spiritual development in terms of its positive effects on health and healing. Ancient Greeks supported the belief that mind and body are connected and modern psychology is now exploring this connection by stressing the mind’s power over the body (Dienstbier & Zillig, 2005). Research suggests “the body, mind and spirit are connected” and that “the health of any one of those three seems to affect the health of others” (Spirituality and health, 2001, p. 89). As a result, healthcare providers are encouraged to conduct spiritual inquiry when evaluating a patient’s history (Larson & Larson, 2003). One specific group of healthcare providers, athletic trainers, are also seeking to increase awareness of the connection between spirituality and health in an effort to prevent jeopardizing athletes from potential gains of health and healing (Udermann, 2000).

Student-Athletes

Student-athletes represent a unique sub-population of college students in that their class schedules often revolve around practice, motivation for college attendance is generally focused on athletic competition rather than educational opportunities, and goal setting is usually centered on “one’s superiority over others” rather than on one’s ability to acquire new skills (Curtis, 2006, p. 2). Athletes often receive reputations for “improper behaviors and poor character. . . [such as] cheating scandals, drugs, violence, disrespect, and other inappropriate behaviors in sport, have almost become expected or the norm” (Doty, 2006, p. 1). However, poor reputations are not
synonymous with all student-athletes as Astin (2004c) recently found 30% of college students encountered a spiritual experience while participating in athletics.

For the purposes of this study, student-athletes were identified according to their participation in either team or individual sports. NCAA Bylaw 17.02.12.1 classifies the following as team sports for men: baseball, basketball, field hockey, football, ice hockey, water polo and lacrosse. The following are women’s team sports: ice hockey, rowing, rugby, soccer, softball, basketball, synchronized swimming, team handball, volleyball, and water polo (NCAA Compliance Manual, 2008-09). NCAA Bylaw 17.02.12.1 classifies the following as individual sports: women’s archery, women’s badminton, women’s bowling, cross country, women’s equestrian, fencing, golf, gymnastics, rifle, skiing, women’s squash, swimming and diving, tennis, indoor and outdoor track and field, and wrestling (NCAA Compliance Manual, 2008-09).

Statement of the Problem

Examining the spiritual development of any subgroup of college students is important since college students’ interest in religion and religious organizations tends to decrease as college attendance increases (Chickering et al., 2006). Astin (2004) claims an increased focus on materialism by college students as compared to a focus on the spiritual interior contributes to a more self-centered approach to life in which the pursuit for meaning and purpose is often neglected. Many higher Education administrators seek to provide students with holistic educational experiences, and this aim is thwarted when spiritual development is absent in a college student’s developmental processes (Love & Talbot, 1999).

Although college students’ religious involvement tends to decrease, spiritual growth often increases when one’s personal quest for meaning and purpose begins (Chickering et al., 2006). College students are also unique in that “spiritual sensitivities seem to be maintained” and change according to “specific types of college involvement” (Bryant et al., 2003, p. 726).
Currently, student development theory has been applied to college athletes in areas such as dealing with academic corruption (Kihi, Richardson, & Campisi, 2008), measuring academic performance and personal development (Aries, McCarthy, Salovey, & Banaji, 2004), identity development in terms of differentiating between athlete and student (Yopyk & Prentice, 2005), promoting success both within and outside the classroom (Carodine, Almond, & Gratto, 2001), and career development (Shurts & Shoffner, 2004).

Based on the previously cited research, collegiate student-athletes’ spiritual development is important as holistic education is expressed as an aim for higher education and spiritual development is a component of holistic education (Noddings, 1995). The connection between spirituality and healthy coping strategies is also related to student-athletes as many student-athletes experience injuries throughout their seasons of intercollegiate competition. Furthermore, research indicates spirituality increases as college attendance increases and spiritual development is related to specific types of college involvement (Bryant et al., 2003). This means that the longer students attend college, the more spiritual development takes place in their lives. Bryant et al. (2003) also found that spiritual development is connected to involvement in certain groups. These findings warrant further exploration of student-athletes’ spiritual development because of their connection to college attendance and involvement in athletics. Promoting college students’ spiritual growth has also been connected to serving the public good and may enable students to search for their meaning and purpose in life both within and beyond the academic setting (Astin, 2004).

Currently, great opportunity exists for further expansion of literature exploring the relationship between college student-athletes and spiritual development. With research indicating the majority of college students experience spiritual development during their collegiate years, it is important to study collegiate sub-groups. Additionally, the aim of higher education to promote
holistic education and the connection between spirituality and health and healing support the need for this study. Benefits associated with college students’ spiritual growth resulting in promoting the public good along with their individual academic achievement provide further support for the need to study spiritual development of collegiate student-athletes. The researcher aimed to determine the level to which spiritual development was self-reported by this particular population.

Context of the Study

The context in which this research was conducted was through administering a survey that measured spirituality as self-reported by student-athletes, then comparing those who participate in individual sports to those participating in team sports. The sample was taken from the University of Louisiana at Lafayette, a NCAA Division I institution. At the end of the spring semester following the student-athletes’ completion of one academic year, student-athletes participating in individual and team sports were administered the College Students’ Beliefs and Values Survey (CSBV). This survey measures an individual’s self-reported level of spirituality. The researcher compared the results from the survey administered to both groups of student-athletes to determine the levels of spirituality experienced by each group.

Impetus for Study

As a collegiate student-athlete and as an athletic administrator, I have observed collegiate student-athletes for years, and predicted the connectedness and personal reflection experienced by student-athletes contributed to an increase in spirituality. More specifically, my personal interests have always been centered on spiritual development after experiencing great personal spiritual development during college. Previously, I examined spiritual development from a qualitative perspective, examining the dynamics of a group of female high school students who regularly participated in a Young Life Bible Study (Clarke, 2007). After studying this particular
group of high school students, I became fascinated with the recent works of Chickering, Dalton, and Stamm (2006) and Astin (2004) along with the Higher Education Research Institute relating to spiritual development and its role in higher education. While the majority of Astin’s studies have been conducted longitudinally beginning with college freshmen, the researcher has been unable to find many works examining student-athletes’ spiritual development. As a former collegiate student-athlete, I experienced the dynamics of spiritual development through a team sport perspective. As a result, I believe a connection exists between Astin’s (2004) findings that the connection and reflection experienced during service learning projects contributes to greater levels of spirituality and the connection and reflection student-athletes in team sports experience promotes greater levels of spirituality as compared to the levels of spirituality experienced by student-athletes participating in individual sports who do not experience the same levels of connection and reflection competing individually.

Another influence driving this investigation is the negative reputation often associated with student-athletes. Student-athletes are often linked to negative behaviors (Doty, 2006). However, as an athletic administrator, I believe these reputations are a result of media publicity and reflect the character of only the minority of student-athletes. I believe that just as the media often portrays the negative side of college sports, it is just as important for college administrators to reveal the positive reputation that many student-athletes gain on a daily basis.

Calls for Study

Recently, student affairs researchers have begun to focus on the roles of religion and faith as legitimate areas for analysis (Chickering et al., 2006; Love, 2001; Love & Talbot, 1999). A study was conducted examining whether or not women’s religious practices differ from males’ with similar religious beliefs and demographic characteristics and if so, how these practices differ (Buchcko, 2004). After the study revealed findings indicating “women’s religious faiths
appear to reflect greater daily connection with God through prayer, more assurance of God’s presence and activity in their lives, and more emotive connection with God as evidenced by more frequent findings of reverence or devotion” (p. 95), implications for further research in student affairs were outlined. A call for research in spiritual or faith development to move from group analysis to individual methods, using better instrumentation was made by Buchcko (2004). The need to “integrate developmental contexts such as stages of faith development (Parks, 2000) and identity formation” were also expressed in further exploring women’s spiritual and religious beliefs (Buchcko, 2004, p. 96). Finally, a call to study multicultural groups was also articulated (Buchcko, 2004).

As a result of UCLA’s Higher Education Research Institute’s (2004) groundbreaking research on college students’ spirituality, calls for extensive research on trends in contemporary college students’ spiritual development processes have also been made. This call to action was placed by Chickering et al. (2006) and intended toward student affairs administrators in an effort to increase their understanding and resources available to respond to the spirituality movement. In January, 2009, the Spirituality in Higher Education project at UCLA also began soliciting proposals for researchers conducting original research examining students’ spiritual development in higher education.

Purpose of Study

This study was designed to move away from the group analysis of spirituality of college students (Astin, 2004c), toward a more individual method of studying collegiate student-athletes as a specific subgroup. The researcher believes Astin’s College Students’ Beliefs and Values Survey (CSBV) serves as strong instrumentation. Just as Buchcko (2004) called for the use of integrating Parks (2000) stages of faith development in future studies, this research is grounded conceptually in the works of Parks (2000). The assertion to examine multicultural groups also
meets the population of student-athletes as this may be one of the most culturally diverse student groups on any college campus as student-athletes are recruited from all parts of the world to participate in collegiate athletics.

**Conclusion**

In conclusion, the differences between religion and spirituality have been clarified, confirming the two constructs are similar, but separate. Spirituality refers to one’s search for meaning and purpose in life and is not bound solely to Western ideologies. For the purposes of this study, the primary focus is on spirituality rather than religion.

Another key component in this study centers on Astin’s (2004) finding that growth in spirituality in higher education has taken place as a result of increased service learning initiatives. This ideal is also grounded in the educational aim of holistic education which includes spiritual development as one of its components. With spiritual development having a role in educating the whole person, higher education administrators need to recognize their resulting responsibilities. Benefits of promoting spirituality in higher education include promoting the public good (Astin, 2004) and assisting students in better achieving their educational goals (Capeheart-Meningall, 2005). Spirituality has also been connected to health and healing strategies (Larson, 2003; Udermann, 2000; Wills, 2007), which is ultimately connected to student-athletes through athletic training and treating athletic injuries.

The impetus of this study, which is grounded in my personal interest in spiritual development, experiences as a student-athlete, and current interactions with student-athletes as an athletic administrator has also been identified. This particular study examined the levels of spirituality of student-athletes at the University of Louisiana at Lafayette. Once these levels of spirituality were determined using the College Students’ Beliefs and Values Survey (CSBV), results were compared between student-athletes participating in individual and team sports. Data
were also examined for other group differences. Conceptually, this study was grounded in the works of Fowler (1981) and Parks (2000), which have developed models for measuring spiritual development. When examining student-athletes’ levels of spirituality, Parks’ (2000) faith development model was primarily used due to its more appropriate fit for this particular population. Finally, all limitations related to the non-experimental nature of the study, lack of ability to generalize, and the weaknesses associated with the conceptual framework have been outlined.
CHAPTER 2

REVIEW OF LITERATURE

While student development theories have long been applied by student affairs officials in higher education, interest in spiritual development has only recently increased in this field. Astin (2004) and Parks (2000), along with Chickering, Dalton, and Stamm (2006) are among those who have identified spiritual or faith development as a critical dimension in developmental processes experienced by most college students. In this study, the benefits of holistic education are presented along with a distinction between spirituality and religiousness. An explanation of growth in attention to spirituality in higher education is also provided. The role of spirituality in higher education and resulting implications for higher education administrators are discussed along with a discussion of spirituality as a healthy coping strategy. Finally, the theoretical framework supporting the measurement of spirituality in college athletes and the assertion that a need for spirituality in higher education does exist are identified.

Holistic Education

Holistic education, or educating the whole child, is accomplished when students are treated as whole persons, “not mere collections of attributes, some to be addressed in one place and others to be addressed elsewhere” (Noddings, 2005, p. 10). Should holistic education be an aim of higher education? Murphy (2005) questions whether or not the purpose of education is to produce students who are capable of seeking truth in regard to one’s purpose in society or to produce students with workforce skills capable of increasing future employment opportunities. In order to fully understand holistic education’s role in the purpose of higher education, one must first examine a historical overview outlining the changes in the purpose of American higher education.
The history of American higher education can be divided into three stages (Lucas, 2006). The founding of Harvard University in 1636 constitutes the beginning of the first stage. At this time the purpose of the university “was to educate the individual to higher knowledge and to a sense of purpose that included an awareness of the soul’s relationship to God” (Murphy, 2005, p. 23). The role of religion in higher education during the colonial college era was evident as Puritans viewed a college education as “part of a large, important social, religious, and political vision” (Thelin, 2004, p. 23). Through 1820, public institutions required students to attend church services (Thelin, 2004). Thelin (2004) argues the purpose of American higher education was not to prepare clergy, but approximately half of Harvard’s students entered the clergy following graduation. Nevertheless, the goal of higher education during this period was to produce Christian gentlemen who were morally earnest and well versed in the Bible, and who were capable of serving in leadership positions including the clergy (Neili, 2007). Thus, leadership was linked to religious service.

The role of the university as a research institution emerged at the end of the nineteenth century. In this second stage, in contrast to the academy serving as a means of religious exploration, the research institution was now dedicated to exploring knowledge and mastering science and technology (Murphy, 2005). This shift in ideals resulted from society’s belief that the liberal arts institution was unable to educate men seeking jobs in an increasingly industrialized and science oriented society (Nieli, 2007). It was assumed the older liberal arts curriculum was incapable of advancing knowledge in an educational environment now driven by science and technology (Nieli, 2007). Fear that America would fail to keep up with the world’s science and technology driven economy encouraged educators to strive for dramatic changes in American higher education in order to promote educational progress (Nieli, 2007). At this time, educators were unaware that this shift toward a science and technology driven pursuit of higher
education would transform older liberal arts colleges into research universities in which few remnants of these university’s religious pasts would be retained (Nieli, 2007).

The third stage of American higher education history began after World War II when the university began to follow a business model, focusing on providing mass access to higher education (Lucas, 2006; Thelin, 2004). The onset of World War II had lowered the draft age to eighteen in the United States (Miller & Brooks, 1944), leading to a continuous decline in college enrollment beginning in 1941 and continuing until 1945-46, until returning veterans helped to boost enrollment (Henry, 1975). The returning veterans “created the most rapid growth of colleges and universities in the history of higher education” (p. 55). In 1944, passage of the Servicemen’s Readjustment Act, often referred to as the G.I. Bill, appropriated billions of federal dollars to assist returning veterans in covering their full school costs (Lucas, 2006). “By 1949-50, total student enrollments had ballooned to almost 2.7 million – an increase of about 80 percent in one decade” (Thelin, 2004, p. 261). Enrollment figures doubled again in the next decade exceeding 7.9 million in 1970 (Thelin, 2004). The dramatic rise in college enrollment ultimately resulted from the attention higher education was receiving in the formation of both state and federal public policy decisions (Thelin, 2004).

Passage of the G.I. Bill prompted innovative change in universities’ admissions policies, moving universities toward a business approach in higher education. Applicant pools had increased and admissions decisions had to be made rapidly. As a result, the curriculum was examined to ensure students moved through degree programs quickly, providing space for larger numbers of incoming students (Thelin, 2004). Advanced placement courses were now evaluated along with waivers for certain course requirements to award additional credit to incoming students in order to limit the amount of time needed to complete a degree program (Thelin, 2004). The use of standardized tests to make admissions and placement decisions also became
regular practice at this time (Thelin, 2004). Concern for academic integrity and community service now competed with the primary goal of meeting the bottom line and remaining cost-effective (Murphy, 2005).

The result of the shifts in these three stages altered the focus of American higher education from “community ideals of shared values that also encompass a sense of the intellectual, moral, and spiritual dimensions in education, to the view of higher education as a business or corporation” (Murphy, 2005, p. 24). As a result, character education, or the ideal that students would acquire moral values and a greater sense of one’s purpose within society, has decreased as a primary purpose in education (Murphy, 2005). While the decrease in character education can be attributed to a variety of causes, such as a decline in liberal arts education or the emphasis of scientific research as posited by Vannevar Bush’s 1945 government report entitled *Science: The Endless Frontier*; the importance of moral or holistic education dates back to the Middle Ages and St. Thomas Aquinas (Murphy, 2005). “In the *Summa Theologica* (1273). . . Aquinas argued that what a person loves, he seeks to know; and what a person seeks to know, he loves” (Murphy, 2005, p. 26). Aquinas believed love to be the foundation “of the pursuit of knowledge because the intellect seeks after truth, [and during the Middle Ages], the highest source of truth [was] God, or the divine” (Murphy, 2005, p. 27). An issue facing American higher education is whether or not to continue to separate preparing students for citizenship with a sense of moral responsibility and purpose to the greater community from the current practices.

During the periods in which Lucas (2006) classifies three historical periods in higher education as told from the academic standpoint, student affairs administrators were also expressing a commitment to educating the whole person. The first “Student Personnel Point of View” was published by the American Council on Education in 1937. One key point in this document stated,
It is the task of colleges and universities to vitalize this and other educational purposes so as to assist the student in developing to the limits of his potentialities and in making his contribution to the betterment of society. . . This philosophy imposes upon educational institutions the obligation to consider . . . the development of the student as a person rather than . . . his intellectual training alone. (p. 39)

After World War II, when higher education institutions were moving toward operating on a business model, a revised “Student Personnel Point of View Statement” was published by the American Council on Education (1949) asserting,

The development of students as whole persons interacting in social situations is the central concern of student personnel work . . . The concept of education is broadened to include attention to the student’s well-rounded development – physically, socially, emotionally, and spiritually, as well as intellectually. (p. 17)

Student affairs administrators have long been advocates of holistic education, referring to spiritual developments as “part of the holistic approach to student development” (Allen & Kellom, 2001, p. 48). Student affairs administrators’ purpose is defined as structuring activities and programs meant to foster a greater learning environment in which students are encouraged to fill leadership positions as productive citizens and to assist in aiding the needs of communities (Allen & Kellom, 2001).

Although the debate of the purpose of education resonates within higher education, this debate begins much earlier with elementary and secondary education. This debate has primarily centered on the aims of education. In 1918, the Cardinal Principles of Secondary Education included seven educational aims in its report. These included health, command of the fundamental processes, worthy home membership, vocation, citizenship, worthy use of leisure, and ethical character (Kliebard, 2004). An additional aim was recently suggested by Noddings (2003); happiness. In this regard, happiness is associated with “such qualities as a rich intellectual life, rewarding human relationships, love of home and place, sound character, good parenting, spirituality and a job that one loves” (Noddings, 2005, p. 9). Synonymous with the
ethic of care, Noddings (1995) asserts, producing capable, concerned, affectionate individuals should be the primary aim of education. Accomplishing this goal requires discussion of existential questions including those of a spiritual nature (Noddings, 1995).

Noting the intent of No Child Left Behind (NCLB) is “providing every student with a thorough and efficient education”, Noddings (2005) criticizes the policy as it fails to address the “proper aims of education” and the ideal of educating the whole child (pp. 8-9). Noddings (2005) notes that a contributing factor undermining holistic educational practices is that Americans live restricted in bureaucratic thought, believing each human function should be compartmentalized. This phenomenon is also referred to as the “assumption of separateness” and credits its roots in Western civilization (Clark, 1990, p. 47).

Ultimately, the purpose of holistic education is to transform fragmented perspectives into integrative perspectives in terms of viewing individuals and relationships (Clark, 1990). In order to create a holistic perspective in education, teachers and students must be allowed to interact as whole persons in a manner which establishes community and trust within the school (Noddings, 2005). Implications for higher education administrators include “understand[ing] the role that such values as faith, hope, and love play in the structure and persistence of communities, in the construction of knowledge, in the understanding of truth, and in the development processes of students” (Love & Talbot, 1999, p. 362). Achieving the goal of educating the whole student is not accomplished when spiritual development practices are ignored (Love & Talbot, 1999).

Holistic education is also favored by Baxter Magolda (2005) in that it prepares students with skills necessary to conquer an array of potential contemporary problems. Miami University (Ohio) recently incorporated Baxter Magolda’s principles of holistic education into redesigning their honors program in an effort to increase retention and improve the overall development of each whole student (Haynes, 2006). Adopting an integrated approach to foster holistic
development in its honor program by Miami University reflects Astin’s (2004) view that students will find a deeper connection between academics and their life’s purpose when engaging in personal reflection and connectedness.

While many benefits to holistic education exist, one should note the connection between spirituality and holistic education. “College is a critical time when students search for meaning in life and examine their spiritual beliefs and values” (Capeheart-Meningall, 2005, p. 31). Thus, spiritual development plays a key role in holistic learning.

Love and Talbot (1999) define spiritual development in five processes. First, the individual seeks identity development through “personal authenticity, genuineness, and wholeness;” then the individual “continually transcends one’s current locus of centricity;” increases connectedness with “self and others through relationships and union with community;” finds “meaning, purpose, and direction in one’s life;” and “explores a relationship with an intangible and pervasive power or essence that exists beyond human existence and rational human knowing” (pp. 364-367). Love and Talbot’s (1999) steps for spiritual development integrate a holistic or all encompassing approach to student learning (Capeheart-Meningall, 2005).

**Spirituality and Religiousness**

Spirituality and religion are connected as described by Hay and Nye (2006) in their book, *The Spirit of the Child*. Participants, under the direction of Hay and Nye (2006) engaged in a study designed to differentiate between the two terms. The majority of participants used metaphors to describe their perceived differences between spirituality and religion. One example provided in the study referred to “spirituality as a journey and to religion as the mode of transport” (Hay & Nye, 2006, p. 20). This is just one example depicting the confusion that most people have separating the two ideals, further implicating the connection between spirituality and
religion. However, Roehlkepartain et al. (2006) claim that the most recent attempts in defining spirituality and religiousness are “predicated on finding a common denominator that can bind religion and spirituality together and at the same time demarcate their differences” (p. 5). Clarifying this distinction between the two terms is needed for the purpose of this study, since the measurement instrument used for data collection assesses one’s self-reported level of spirituality.

Post World War II years were filled with a decline in religious involvement for most Americans (Zinnbaurer et al., 1999). This pattern of decline in religious involvement continued in the 1960s and 1970s as baby boomers decreased their participation in religious organizations. The loss of community experienced after World War II and the need to sustain America’s consumer-based economy stimulated the configuration of the empty self (Cushman, 1990). The empty self often resulted from a lack of personal meaning which often led to a search for spiritual guidance and belief in a higher power (Cushman, 1990). The 1980s and 1990s were a time when spirituality arose as a new form of faith and the term was attached to numerous movements, including those of a religious nature (Zinnbauer et al., 1999).

Today, many are experiencing more stressful and less meaningful lives than those experienced during the cold war in the 1960s (Chickering et al., 2006). As a result, Americans continue to decline in church attendance, but spirituality, as a personal quest, has continued to flourish in the twenty-first century (Chickering et al., 2006). In response to this surge in spirituality versus religion, traditional churches have begun to design services aimed at meeting the needs of a population more focused on individuals’ search for meaning and purpose in life as opposed to church membership and participation motivated by social norms (Chickering et al., 2006). Consequently, religious and spiritual climates in America exhibit a decrease in many
religious institutions, and an increase in personal and individualistic types of expression, and a culture accepting of religious pluralism (Zinnbauer et al., 1999).

Despite the recent movement toward increased spirituality, defining the term can be difficult (Tisdell, 2001). Spirituality is “often described in personal or experiential terms, such as belief in God or a higher power, or having a relationship with God or a higher power” (Zinnbauer et al., 1997, p. 561). This sentiment is also expressed by Hart (2003) who notes the personal and relational ties of spirituality to the Divine. Yet another definition of spirituality states, “Spirituality is often connected to things like meaning in life, which can be an entirely secular affair, or meditation, which can also be divorced from any specific religious context” (Johnson et al., 2004, p. 3). The definition of spirituality most closely related to this study depicts it as having to do with the values that we hold most dear, our sense of who we are and where we come from, our beliefs about why we are here – the meaning and purpose that we see in our work and our life – and our sense of connectedness to each other and to the world around us. (Astin, 2004, p. 34)

Although spirituality and religion are connected, these two terms are not synonymous. Where spirituality refers to one’s search for meaning or purpose in life, religiousness deals with the rituals and practices associated with a religious institution (Zinnbauer et al., 1997). Religion is often defined in “terms of rituals and the social functions those rituals served” (Johnson et al., 2004, p. 3). Religion has also been defined as “the search for significance in ways related to the sacred encompassing both the individual and the institutional” (Pargament, 1999, p. 12). While examining children’s spiritual development, Hart (2003) defined religion as “an institutionalized approach to spiritual growth formed around doctrines, rituals, and standards of behavior” (p. 173).
When examining the differences between spirituality and religion, Zinnbaurer et al. (1997) remind researchers to take into account the specific beliefs or ideals of the people or individuals being studied in order to accurately measure levels of religiousness and spirituality (p. 562). While Western religions are most often associated with belief in a supreme being or higher power, other religions may not pay homage to a higher power, but may treat certain objects, places, persons, creatures, or rituals as sacred (Wringe, 2002). While differences exist between various religions,

To believe in the meaningful use of ‘spirituality’ and ‘spiritual development’ outside the ambit of a specific religion is at very least to believe in the possibility of achieving the states of serenity, detachment from the world, exaltation or whatever that the specific beliefs and practices of religion are supposed to make possible, independently of a belief in a personal God or the special efficacy of specific locations, objects, rituals or words. (Wringe, 2002, p. 162)

For the purposes of this study in the context of higher education, spirituality has been the focus rather than religiousness. In a broad definition, the researcher refers to spirituality as one’s search for and understanding of one’s meaning and purpose in life. The researcher refers to religion as an established belief system in which an individual often utilizes rituals and sacred documents to worship a deity or higher power.

Explanation for Growth in Attention to Spirituality

The increase in attention to spirituality in higher education is evident in recent studies conducted by Astin (2004) and UCLA’s Higher Education Research Institute (HERI), along with the works of Chickering, Dalton, and Stamm (2006). The Templeton Foundation recently awarded a $1.9 million grant to HERI to fund a longitudinal study of college students’ spiritual development. Rising awareness of the significance of spirituality’s role in higher education is resulting from the fragmentation and focus on materialism currently present on today’s college campuses (Astin, 2004). A movement generating increased attention to spirituality continues to
emerge as faculty and students attempt to seek wholeness or meaning in their lives and institutions (Astin, 2004). This search for meaning in higher education settings reflects an increasing concern to reestablish a sense of purpose or meaning for America’s society as a whole (Astin, 2004).

Growing attention to spirituality in higher education has been credited to the emphasis on learning over teaching, increased freshmen seminar courses which cause students to examine a deeper meaning between academics and their life purpose, and involvement in service learning initiatives which encourage connectedness and personal reflection (Astin, 2004). Love and Talbot (1999) and Bryant, Choi, and Yasuno (2003) stress the relevance of an increase in service learning participation and spirituality. The ability of service learning to foster connectedness and personal reflection in that students arrive at their own meaning of life as a result is emphasized by Astin (2004). The relevance of connection in spiritual development is noted when defining spirituality as “an active process engaging hope in the ongoing development of connection to self, to others, and to the universe” (Wills, 2007, p. 431). Thus, experiencing connection to others and oneself is a critical component in the spiritual developmental process.

All student development theories represent efforts to enhance awareness of individuals’ development processes. Certain student development theorists have examined the development of individuals in terms of one’s experiences with other individuals in the context of interpersonal relationships (Baxter-Magolda, 2005; Kegan, 1994; Perry, 1981). For example, Perry (1981) defined nine positions among which an individual transitions while developing intellectually. These nine positions include: (1) basic duality, (2) full dualism, (3) early multiplicity, (4) late multiplicity, (5) contextual relativism, (6) Pre-Commitment, (7) commitment, (8) Challenges to Commitment, (9) Post-Commitment (Perry, 1981). Basic duality is the intellectual stage where all problems can be solved and the individual seeks to learn the right solution to problem solving
based on the opinion of an authoritative figure. Full Dualism is reached when the individual seeks only the right solutions to the problems. Early multiplicity is the stage in which the individual has some solutions to problems that are known and others that are unknown at this point in life. Late multiplicity is where the individual deals primarily with unknown solutions and discovers that some problems are unsolvable. Contextual relativism is the stage of intellectual development in which the individual supports solutions with reason. Pre-Commitment is when the individual makes personal choices and selects the best solution to the problem. In the Commitment stage, the individual combines knowledge previously learned in relation to others with one’s personal experiences resulting in the individual making a commitment. The Challenges to Commitment stage involves the individual experiencing the results of their commitment and thus exploring issues such as responsibility related to their commitment. In the Post-Commitment stage, the individual recognizes commitment is a process which is constantly evolving. “From Perry’s labeling of these positions, certain key words representing fundamental differences in the process of meaning making can be noted: duality, multiplicity, and relativism” (Evans, Forney, & Guido-DiBrito, 1998, p. 131). While Perry focuses on internal development, positions are still reliant upon reactions and relations with others.

Adults’ meaning making processes were described by Kegan (1994) as occurring through five orders of consciousness. In the first order of consciousness, children typically between the ages of seven and eight, are unable to separate objects from themselves. Meaning making occurs as a result of impulses experienced by the individual (“Kegan’s Orders of Consciousness,” 1999). The second order of consciousness is generally experienced by an individual in late childhood or early adulthood. The individual is primarily concerned with one’s own experiences, but is now aware of one’s relation to others (“Kegan’s Orders of Consciousness,” 1999). In the
third order, meaning making takes place externally because questions regarding identity
development are constructed in terms of what others expect (Baxter Magolda, 2005). The
meaning making system being used in the third order is the socialized self where interpersonal
relationships guide meaning making as the individual is consumed by those around them
(Erickson, 2007). The fourth order of the mind is characterized by a shift in the individual toward
reliance on internal guidance for meaning making while monitoring the influence of others
external to the individual (Baxter Magolda, 2005). The meaning making system in the fourth
order is described as the self-authorized self, where the individual confirms values, beliefs, and
ideals internally, even though these elements are still influenced by external interpersonal
relationships (Kegan, 1994). The difference in the fourth order is that the individual authors
meaning making internally as opposed to total reliance on interpersonal relationships. During the
fifth order, an individual ascribes meaning making as the self-transformed self (Erickson, 2007).
The individual is able to make meaning after the self evaluates one’s experiences, essentially
making one’s self an object (Erickson, 2007). Reflection on the object takes place, allowing
meaning making to occur.

In an attempt to further examine Perry’s (1970) forms of intellectual development by
examining both women and men, unlike Perry who studied only men, Baxter Magolda began a
longitudinal study of college students’ cognitive development processes (West, 2004). One of the
six principles outlining Baxter Magolda’s (1992) study included the observation that an
individual’s worldview and experiences resulting from interpersonal relationships affect meaning
making depending on the specific experiences of a particular individual. Baxter Magolda’s
(2005) epistemological reflection model includes four knowledge stages including absolute
knowing, transitional knowing, independent knowing, and contextual knowing.
An absolute knower believes knowledge is definite and held by authoritative figures (Baxter Magolda, 2005). Similar to Perry’s (1970) dualistic thinker, students operating in absolute knowing believe knowledge is either right or wrong (Baxter Magolda, 2005). Once absolute knowers begin to question the limitations of only authorities possessing knowledge, the shift to transitional knowing takes place (Bock, 1999).

Women tend to follow an interpersonal pattern of transitional knowing in which evaluation of knowledge through peer relationships and relationship with authorities helps the individual dispel uncertainty (Baxter Magolda, 2005). Men tend to follow an impersonal pattern of transitional knowing where individuals valued challenges from peers and authority in regard to the learning process and resolved uncertainty through the use of logic and research (Bock, 1999; Baxter Magolda, 2005). Peer relationships are often considered a transitional point in which individuals advance toward independent knowing. Interpersonal pattern students generally accept their peers’ views as legitimate, while impersonal pattern students require a further shift to include peers and themselves in the authority figure rank (Baxter Magolda, 2005).

Independent knowers progress to understanding peers and instructors have a position of authority to create new ideas (Bock, 1999). Students experiencing independent knowing respect others’ beliefs, but recognize the rights of individuals to disagree (Bock, 1999). Not all students advance to contextual knowing, but this epistemological assumption is reached when students acquire the ability to make judgments in specific settings. The contextual knower critically analyzes the context surrounding any issue before passing judgment (Bock, 1999). Contextual knowers are able to articulate their beliefs to others and engage in validations of their newfound knowledge, thus increasing one’s ability to contribute to the constant formation of human communities (Bock, 1999).
Kegan (1994) and Baxter Magolda (2005) provide examples of student development theories seeking to incorporate the effects of interpersonal relationships on individuals’ developmental processes. Students’ individual developmental processes are often impacted by interactions in interpersonal relationships. Although spiritual development is an independent or individualist experience, it too is reliant upon connection with others and experiences resulting from this connection.

Western ideals are not alone in operating under the belief that connection with others is associated with both cognitive and spiritual development. Eastern religions such as Buddhism, Confucianism, Hinduism, and Islam also stress the role of relationships in spirituality. In order to clarify these practices and beliefs, one must understand the basic principles for each of these religions.

In Buddhism, an individual focuses on meditation in order to reach a state of Enlightenment. While meditation is an individual experience, the cognitive processes being practiced during meditation include examining relationships in one’s life as well as one’s behaviors in these relationships. For example, the Fourth Noble Truth in Buddhism is “The Path” (Rahula, 1974, p. 45). According to Buddhism, the eightfold path consists of (1) Right Understanding, (2) Right Thought, (3) Right Speech, (4) Right Action, (5) Right Livelihood, (6) Right Effort, (7) Right Mindfulness, and (8) Right Concentration (Rahula, 1974). These eight categories are grouped according to three essentials of Buddhist training: (1) Ethical Conduct, (2) Mental Discipline, and (3) Wisdom (Rahula, 1974). Each of these categories requires an individual to focus on interpersonal relationships and one’s place in the world in relation to others. For Buddhists, ethical conduct aims at promoting peaceful and honorable lives for both individuals and society as a whole (Rahula, 1974). Although Buddhism encourages individual growth and realization, the process of reaching Nirvana, or absolute truth, involves training,
focus, and discipline, where an individual examines interpersonal connections to progress through the Four Noble Truths.

Confucianism has been described as “ritualized living through the roles and relationships of family and community” (Ames, 2003, p. 166). Specifically, Confucius based his ideals on three basic beliefs: (1) The primary goal is for an individual to become as morally evolved as possible, (2) Once an individual is taught how to act correctly, he or she is expected to do so, and (3) Family is to remain the most important part of human society (Hawkins, 2004). Each category involves the individual relating with others, and the expectation is for individuals to act correctly in all relationships (Hawkins, 2004). In order to be religious according to Confucian teachings, one must engage in transformation of the self, remain connected to one’s community, and establish relationship with the “transcendent realm” (Miller, 2006, p. 287). Miller (2006), “emphasize[s] Confucianism as a form of human ‘spirituality’” (p. 288).

Hinduism does not have any one founder; rather it gradually evolved over five thousand years taking on religious and cultural beliefs of India (Sen, 1961). The principles of Hinduism are summarized in four stages: (1) brahmacarya, (2) garhasthya, (3) vanaprasthya, and (4) sannyasa (Sen, 1961). The first stage, brahmacarya is a period in which disciplined education is perceived as the duty of youth. During garhasthya, the individual is expected to live an active life serving others and marrying. This stage connects Hindus to the valued social structure of family. In the third stage, vanaprsthy, the individual begins to cut ties with the social world. Finally, the fourth stage entitled sannyasa, is when the individual lives the life of a hermit, secluded from the social world. Progression through these stages is intended to aid the individual in breaking free from bondage associated with rebirth (Sen, 1961). Again, it is important to note the connection or relationship with others that Hindus experience in garhasthya.
Muhammad is the founder of Islam, who experienced an awakening throughout his journeys along the Arabian Peninsula and as a result, desired to know God (Hawkins, 2004). Islam is a very rich and complicated religion (Hawkins, 2004). However, its essence can be summarized in the Five Pillars which are known to be the basic duties of Muslims (Ruthven, 1997). The Five Pillars include: (1) faith in Allah, the one true God, (2) prayer, (3) alms-giving, (4) fasting, and (5) pilgrimage (Ruthven, 1997). Perhaps the third and fifth pillars of Islam best stress the importance of relationship in one’s religious journey. Muslims are called to alms-giving or providing for those who are less fortunate in the third pillar. The pilgrimage to Mecca, in the fifth pillar, is intended to reaffirm the connection and equality of the Muslim community and all of humanity (Hawkins, 2004).

The importance of promoting connectedness on college campuses, which in turn increases spiritual development, is evident in today’s higher education institutions. Recently, Miami University (Ohio) reevaluated the mission and structure of their honors program in order to increase retention and develop “the epistemological, the interpersonal, and the intrapersonal” dimensions of student learning. Included in the program’s new learning outcomes were the tasks of self-reflection regarding one’s individual values and learning styles while purposefully engaging and productively collaborating with peers (Haynes, 2006). In addition to the promotion of fostering connectedness and personal reflection in Miami University’s honors program through learning outcomes, the program also mandated students engage in service learning projects and leadership experiences. This mandate was a result of program coordinators recognizing learning takes place beyond the classroom (Haynes, 2006). Since reconstructing the honors program’s mission and structure, Miami University has increased its applicant pool by more than 25 percent, increased the average academic achievement levels of incoming students,
and greatly diversified the student population with an increase in minorities and first-generation college students (Haynes, 2006).

Role of Spirituality in Higher Education

“Why shouldn’t cultivating this ability to observe one’s own mind in action – becoming more self-aware or simply more ‘conscious’ - be one of the central purposes of education” (Astin, 2004, p.34)? With recent growth in attention to spirituality in higher education, spiritual development theorists advocate defining the role of spirituality on college campuses. While most students lose interest in and often distrust religion and specific religious organizations in college (Chickering et al., 2006), some students may experience an increase in spiritual development in college during their individual quests for meaning and purpose (Bryant et al., 2003). Findings from A National Study of College Students’ Search for Meaning and Purpose conducted by Astin (2004c) indicate, “There is a high level of spiritual engagement and commitment among college students, with more than half placing a high value on ‘integrating spirituality’ in their lives (58%), 77% saying ‘we are all spiritual beings,’ and 71% indicating they ‘gain spiritual strength by trusting in a higher power’” (p. 2).

An emphasis on materialism in higher education such as enrollment figures, funding, academic qualifications of students, faculty publications, and public rankings is partially responsible for creating an environment in which academics actively seek for meaning and purpose while attempting to discover new ways to create a sense of wholeness in their lives as well as their institutions (Astin, 2004, p. 37). Emphasizing the role of spirituality on college campuses will increase connectedness between faculty, students, and institutions, thus creating a sense of community that will overcome the disconnect that many students and faculty currently experience and will aid students in living more meaningful lives (Astin, 2004). Allen and Kellom (2001) also observe this fragmentation on college campuses, recognizing compartmentalized
departments are still present in higher education despite attempts to blur boundaries. The example is given that faculty and staff use names of departments and divisions to mark territory and operate under unwritten behavioral rules requiring individuals to worry only about their own business (Allen & Kellom, 2001). Fragmentation created in the institutional environment is also experienced by students attending classes, meeting with professors, and visiting departments providing student support services. This fragmented environment experienced by students is likely to impact opportunities for spiritual development to occur. In spite of fragmentation experienced in the collegiate environment, spirituality operates under the ideal of connection and that creating relationship through a sense of community will stimulate spiritual growth (Allen & Kellom, 2001).

The time is ripe for educators to “provide the sunshine, the rain, the nutrients, and the encouragement and support for students to pursue wholeness as essential to their education” (Chickering et al., 2006, p. 91). Similarly, Wolf-Wendel and Ruel (1999) echo this notion claiming the development of the whole person is one of the primary purposes of higher education. The religious and spiritual climate present on today’s college campuses is reflective of the religious and spiritual beliefs and practices exhibited by society as a whole (Astin, 2004; Chickering et al., 2006). Promoting spiritual growth in college students serves the public good and may aid individual students in achieving a greater sense of meaning and purpose both socially and academically (Astin, 2004).

Implications for Higher Education Administrators

“Incorporating spiritual development will require new ways of thinking, a review of campus learning environments, an analysis of patterns and methods of program delivery and systems, and possibly a divisional realignment to honor educating the integrated whole of the student” (Capeheart-Meningall, 2005, p. 34). Higher education administrators will need to
incorporate opportunities for students to assess values and set goals at the onset of students’ collegiate experience. Student affairs administrators are on the frontlines when it comes to responding to students’ quests for meaning and purpose in life (Chickering et al., 2006). Using Love and Talbot’s (1999) spirituality framework, Capeheart-Meningall (2005) applies each component to the context of higher education.

One of the first aspects of spiritual development involves identity development, which is accomplished through an individual’s search for “personal authenticity, genuineness, and wholeness” (Love & Talbot, 1999). Authenticity refers to a non-fragmented lifestyle where a person lives and acts according to the same values and beliefs in all situations and environments (Chickering et al., 2006). Genuineness refers to nearly the same concept as authenticity, and when applied in an educational setting, implies an individual is not conflicted between personal values and those of the institution (Chickering et al., 2006). Wholeness was previously discussed in the context of holistic education and is further reiterated here in the context of higher education.

Capeheart-Meningall (2005) recommends combining value clarification and goal setting opportunities with initial orientation programs. Educators and administrators should focus on creating safe environments where reflective analysis prevails. Learning communities are an example of where reflective analysis can occur and flourish. Institutions need to focus on creating learning environments or communities where students are empowered to attain educational goals and engage with fellow students in developmental conversation (Healy & Liddell, 1998). Administrators and faculty should also create safe environments, in which differing stories can be shared, discussed, and synthesized (Rogers & Love, 2007).

Spiritual development also includes the act of surpassing one’s locus of centricity (Love & Talbot, 1999). Living a balanced lifestyle is critical for a student who is developing spiritually.
Higher education administrators need to provide students with opportunities to learn skills such as time-management, maintaining healthy relationships, and living healthy lifestyles (Capeheart-Meningall, 2005).

In building healthy relationships, students must develop connectedness with oneself, others, and the community in order to grow spiritually (Love & Talbot, 1999). Also stressing the importance of personal reflection in defining the role of student affairs professionals as one of providing guidance in meaning making and reflection, Healy and Lidell (1998) note the importance of establishing an environment in which reflection becomes habitual and an opportunity to teach others. Self-authorship, or the ability to make meaning of one’s individual beliefs and values, is a precursor for functioning effectively in today’s society (Baxter Magolda, 2001). As previously stated, Astin (2004) emphasizes the ability of service learning to foster connectedness and personal reflection in that students arrive at their own meaning of life as a result. Thus, by providing students with service learning projects and volunteer opportunities educators and administrators promote the development of connectedness.

A major aspect in spiritual development involves developing purpose, meaning, or direction in one’s life (Love & Talbot, 1999). Programs should be offered by the university that enable a student to explore personal interests, skills, and provide the student with a clearer depiction of their purpose in life beyond their collegiate experience (Capeheart-Meningall, 2005). “Activities such as support groups, residential dialogues, campus ministries, career explorations, and life planning allow students to solidify their search for their own purpose” (Capeheart-Meningall, 2005, p. 35). While students explore individual purposes, it is also important for higher education administrators to model authenticity in their own search for meaning in life (Chickering et al., 2006; Rogers & Love, 2007). When faculty and administrators
are open and honest, students are more likely to develop authentic identities as well (Rogers & Love, 2007).

Meaningful spiritual development entails expanding one’s willingness to explore a relationship with a higher power or being that exists outside of human existence (Love & Talbot, 1999). Religious organizations, campus ministries, and lectures on different religions may help students create a deeper understanding of spirituality (Capeheart-Meningall, 2005). As a result, any programs that promote or encourage spiritual development have the potential to increase students’ educational achievements (Capeheart-Meningall, 2005).

While providing students with spiritual development opportunities is one component in supporting a holistic approach to education, an institution should also support the key administrators, particularly student affairs officials, in understanding all aspects of spiritual development. Nothing is more central to a human being than the spirit (Allen & Kellom, 2001). This concept of holistic education respects spiritual development in both students and faculty and staff. However, in an effort to avoid meddling and moralizing, student affairs administrators have often avoided spirituality in a student’s developmental processes (Chickering et al., 2006). Student affairs administrators need to receive proper training in order to gain experience in expressing their personal spiritual lives and beliefs with students and colleagues (Chickering et al., 2006). Professional development opportunities continue to increase for student affairs administrators to aid them in promoting spiritual development among students and faculty (Chickering et al., 2006). One reason for supporting spiritual development on college campuses is that it helps student affairs officials “survive personally and professionally” in demanding jobs (Allen & Kellom, 2001, p. 47). Ultimately, the primary purpose for fostering holistic growth and development in college students is to impact the campus environment and contribute to the creation of a better world (Allen & Kellom, 2001).
In order to create an environment in higher education that fosters spiritual development, Allen and Kellom (2001) call for a shift in culture “from one of a fragmented treadmill to one that encourages reflection, caring, community, and integration” (p. 50). For student affairs administrators to adequately provide students with opportunities for spiritual development, Allen and Kellom (2001) provide several suggestions for staff development. First, student affairs administrators are often over burdened with daily tasks. Thus, job descriptions should be simplified, providing greater time for reflection as opposed to just doing (Allen & Kellom, 2001). One example for providing students and faculty with the opportunity for reflection is to provide a place on campus where reflection and quiet can take place (Allen & Kellom, 2001; Chickering et al., 2006). Another is to provide two hours each week of uninterrupted time for staff in which no meetings, phone calls, or checking e-mail may take place (Allen & Kellom, 2001). During this time, staff should take time to “think, reflect, and spontaneously visit and build relationships with each other” (Allen & Kellom, 2001, p. 54). Faculty and staff should also participate in service learning projects, like students, to develop greater connection to one another and the community (Allen & Kellom, 2001).

Although Allen and Kellom’s (2001) suggestions for student affairs administrators’ professional development may be rather idealistic in nature and may appear to be an impossible addition to today’s business model approach to running a university, these suggestions have the capability to benefit a university. The idea of promoting students, faculty, and staff with opportunities to promote spiritual development meets Astin’s (2004) call for providing campuses with a sense of community that will overcome the disconnect that many students and faculty currently experience and aid students in living more meaningful lives. Consequently, higher education administrators, particularly student affairs administrators, have the responsibility to
educate the whole student, thus providing opportunities both within and beyond the classroom for students to explore their spirituality.

Spirituality as a Healthy Coping Strategy

In addition to spiritual development’s function in holistic education, one should also examine spirituality’s impact on the whole person, beyond education alone. An article written to family physicians acknowledges the lack of research relating spirituality to health, but suggests “the body, mind and spirit are connected” and that “the health of any one of those three seems to affect the health of the others” (“Spirituality and health,” 2001, p. 89). Wills (2007) also denotes, ”Spirituality is revealed to be a factor in health/healing” (p. 428). Stressing the significance of spirituality over religion, Wills (2007) differentiates between religion and spirituality suggesting spirituality is a “more personal endeavor” while religion is a “more collective one” (p. 429). Spiritual attributes can exist in individuals regardless of whether or not one practices religion and applies the universality of spirituality to health and healing (Wills, 2007).

The relevance of religion and spirituality on both physical and emotional health was examined in a collection of recent quantitative research (Larson & Larson, 2003). While observing growth over the past five years in training medical professionals to address spirituality when treating patients, Larson and Larson (2003) also found evidence that large numbers of patients rely on spiritual resources while coping with illnesses or mental health issues. In particular, they conclude, “Spiritual/religious coping may enhance pain management, improve surgical outcomes, protect against depression, and reduce risk of substance abuse and suicide” (Larson & Larson, 2003, pp. 48-49). Scientists and health professionals are beginning to develop and utilize “psychospiritual interventions” integrating spirituality and medical practices and have seen promising results (Pargament & Mahoney, 2005). It is also interesting to note Larson and
Larson’s (2003) inclusion of “spiritual” and “religious” in the title of their coping strategy. This is further evidence that the two terms are related and difficult to differentiate.

Research also indicates spirituality not only has positive effects on mental health (Koenig, 1998) but also on coping with stressful experiences (Pargament, 1997). In particular, individuals who view traumatic life experiences through a more spiritual framework typically cope better with those crises (Pargament & Mahoney, 2005). Pargament and Mahoney (2005) discovered psychological and social benefits are often experienced by spiritual individuals.

With research indicating spiritual commitment impacts physical and mental health, whether for help or harm, healthcare providers are encouraged to conduct spiritual inquiry when evaluating a patient’s history (Larson & Larson, 2003). Chaplains and spiritual counselors should be included as part of the healthcare team when holistically treating an individual patient (Larson & Larson, 2003). In regard to athletic training, Udermann (2000) addresses athletic trainers’ lack of awareness understanding the connection between spirituality and health and healing. Remaining unaware of the connection between spirituality and health may jeopardize potential gains of athletes. Thus, athletic trainers should explore spiritual issues during the healing process. Udermann (2000) believes the goal of athletic trainers is to

provide the highest quality, comprehensive care possible to the athletes and patients who are under our supervision. Learning more about the effects of spirituality on health and healing and possibly incorporating these principles into our prevention and treatment philosophies may be one way to enhance the care we give to our clients and to continue to advance our profession. (p. 197)

Although spirituality has been primarily evaluated from a helpful stance in terms of being utilized as a healthy coping strategy, instances do exist where spirituality has been associated with harmful circumstances in regard to an individual’s healing process (Larson & Larson, 2003). Coles (1990) provides an example of this type of situation by discussing his therapeutic sessions with an eight-year old Catholic girl named Connie. After exhibiting aggressive behavior
at school, Connie was sent to meet with Coles as her counselor. Coles recalls that Connie was extremely grounded in her religion and experienced extreme guilt as a result of her “bad habits” (p. 12). Connie would get angry with Coles when he separated her religion from her negative behaviors. She also clarified that her religious life was multifaceted and that Coles should not equate her spiritual life with that of her religious life. At the recommendation of his supervisor, Coles began to explore Connie’s “spiritual psychology” (p. 15). Although this approach enabled Coles to make greater progress with his patient, the child continued to struggle with finding a balance between her faith and her behaviors. She admitted to talking with Jesus, but still experienced anxiety over taking up too much of Jesus’ time and disappointing him. Her constant struggle with interpreting whether the devil or God was speaking to her lead to Connie experiencing increased feelings of guilt and anxiety. This is simply one example of the harm that can be associated with spirituality as a healthy coping strategy.

Researchers have indicated spirituality not only impacts the educational experience of college students, but their mind and body as well (Larson & Larson, 2003; Pargament & Mahoney, 2005; Udermann, 2000; Wills, 2007). Specifically, spirituality plays a beneficial role in improving mental and emotional health as well as aiding individuals in coping with stressful situations (Koenig, 1998; Larson & Larson, 2003; Pargament, 1997). Thus, a holistic approach to education and healthcare is warranted when examining the spiritual development of student-athletes, as this is a unique sub-population of the general college student body.

Conceptual Framework

Understanding spiritual development in college students requires a conceptual understanding of spiritual development theory. Perhaps the two leading theorists in faith development theory today are James W. Fowler and Sharon Daloz Parks. “Parks’s original work builds on Fowler’s theory of faith development” (Love, 2001, p. 7).
Fowler (1981) has developed a theory of faith development which is grounded in a combination of Piaget’s (1970) cognitive stages and Kohlberg’s (1976) moral stages. Erikson’s (1950) “normative life crises” outlined in his epigenetic chart were also combined with Fowler’s “cognitive-developmental processes” in the faith development theory (McDargh, 2001, p. 188). Piaget’s cognitive developmental stages center on a child’s ability to construct a world by incorporating various elements into a pre-established behavioral system (Steiner, 1974). Progression through cognitive developmental stages takes place when the child builds on learned elements (Steiner, 1974). Kohlberg expanded upon Piaget’s definition of moral development identifying three specific stages (Kohlberg & Hersh, 1977). Kohlberg’s moral development theory represents changes that occur in an individual’s thought processes (Kohlberg & Hersh, 1977). Erikson’s theory of psychosocial development is grounded in the epigenetic principle stating development occurs in incremental stages and that progression in previous stages greatly impact developmental outcomes in later stages (Dunkel & Sefcek, 2009).

Piaget described four major stages in which a child progresses developmentally; (1) sensorimotor, (2) preoperational, (3) concrete operational, and (4) formal operational (Cook-Cottone, 2004). During the sensorimotor stage, children become more aware of their environment and make deliberate attempts to interact in specific ways (Cook-Cottone, 2004). Individuals begin to identify themselves through the use of symbols and words during the preoperational stage. Specifically, individuals operating in the preoperational stage tend to distort their self-image and point of view in terms of others’ viewpoints and become captivated by external appearances (Cook-Cottone, 2004). Once entering the concrete operational stage of cognitive development, individuals become capable of mentally ordering and altering experiences (Cook-Cottone, 2004). Experiences and actions are considered concrete due to the fact they occur in front of the people and events being reflected upon (Cook-Cottone, 2004).
Piaget’s **formal operation stage** is generally encountered by children ages 11 and 12 (Day, 1981) when the ability to think systematically and logically is acquired (Cook-Cottone, 2004). Individuals in this stage often seek solutions to problems and thinking becomes conceptual, idealistic, and rational (Cook-Cottone, 2004).

Kohlberg defined three levels of moral development; (1) preconventional, (2) conventional, and (3) postconventional (Kohlberg & Hersh, 1977). At the **preconventional level**, a child operates in terms of good and bad or right and wrong. Decisions are often made after reflection upon actions for one’s consequences (Kohlberg & Hersh, 1977). Within the preconventional level, two stages exist; (1) punishment-and-obedience orientation and (2) instrumental-relativist orientation (Kohlberg & Hersh, 1977). During the **punishment-and-obedience orientation**, physical consequences determine the relative nature of good and bad or right and wrong. An individual avoids behaviors based on physical consequences rather than in terms of moral respect (Kohlberg & Hersh, 1977). During the **instrumental-relativist orientation**, positive actions are viewed in terms of that which directly benefits the individual and occasionally in terms of what benefits others (Kohlberg & Hersh, 1977).

An individual operating in the conventional level of moral development seeks to maintain others’ expectations in an act of loyalty and in an effort to identify with the group (Kohlberg & Hersh, 1977). Within the **conventional level**, the interpersonal concordance orientation and the “law and order” orientation exist (Kohlberg & Hersh, 1977). In the **interpersonal concordance** or “good boy – nice girl” orientation, an individual attempts to emulate morally acceptable behaviors as identified by society or stereotypical images (Kohlberg & Hersh, 1977). During the “law and order” orientation an individual operates under the authority of the law and attempts to fulfill one’s duty (Kohlberg & Hersh, 1977).
At the final stage of moral development, the **postconventional level**, the individual begins to break free from choosing right behaviors based on loyalty to others and conformity to society (Kohlberg & Hersh, 1977). Within the **postconventional level** of moral development lie the legalistic orientation and the universal-ethical-principle orientation. During the legalistic orientation an individual defines right action in terms of one’s own values and opinions after critically evaluating society’s ideals (Kohlberg & Hersh, 1977). An individual operating in the universal-ethical-principle orientation respects justice, equality, and rights of all individuals, making abstract and logical decisions based on one’s individual ethical principles (Kohlberg & Hersh, 1977).

Erikson defined eight stages of psychosocial developmental crises experienced during one’s lifespan; (1) trust vs. mistrust, (2) autonomy vs. shame, (3) initiative vs. guilt, (4) industry vs. inferiority, (5) identity vs. role confusion, (6) intimacy vs. isolation, (7) generativity vs. stagnation, and (8) integrity vs. despair (Dunkel & Sefcek, 2009). Despite the use of “vs.” within each crisis, Erikson intended for these stages to be viewed as continuums rather than categories (Dunkel & Sefcek, 2009). An individual is believed to have achieved optimum psychological health when a balanced ratio is achieved between the two poles in each continuum (Erikson, 1950).

Erikson’s (1950) first life crisis is experienced during infancy. Based on a caretaker’s responsiveness, an infant develops a basic sense of trust (Dunkel & Sefcek, 2009). This level of trust experienced falls on the continuum of trust vs. mistrust. During the second stage, **autonomy vs. shame**, the individual in toddlerhood begins to develop mobility. While exploring the world, the child develops a sense of autonomy if the caretaker appropriately guides the child (Dunkel & Sefcek, 2009). A child has the ability to develop the psychosocial strength of willpower vs. self-control during the second stage (Dunkel & Sefcek, 2009). Within stage three, **initiative vs. guilt**,
a child in preschool gains the ability to engage in goal-directed behaviors which are often increased after experiencing praise and success (Dunkel & Sefcek, 2009). Purpose is the skill to be gained during this stage of development (Dunkel & Sefcek, 2009). Erikson’s (1950) fourth stage is industry vs. inferiority which occurs during childhood. The child attempts to master culturally significant skills which produce a sense of industry and competence (Dunkel & Sefcek, 2009). The identity vs. role confusion stage occurs during adolescence (Dunkel & Sefcek, 2009). During this stage, an adolescent must develop a sense of self-stability (Dunkel & Sefcek, 2009). The identity vs. role confusion stage is considered the most important stage in Erikson’s theory as identity development results in fidelity (Dunkel & Sefcek, 2009). Erikson’s (1950) sixth stage, intimacy vs. isolation is experienced during adulthood. This stage is often experienced in the context of romantic relationships and deals with sharing and commitment with another (Dunkel & Sefcek, 2009). Love is the psychosocial strength gained in this developmental stage (Dunkel & Sefcek, 2009). Generativity vs. stagnation is the seventh stage of development in Erikson’s (1950) theory. This stage is experienced in middle adulthood when the adult feels compelled to contribute to productivity that will impact the next generation, often one’s children, and leads to the development of care (Dunkel & Sefcek, 2009). The final stage in Erikson’s (1950) theory is integrity vs. despair, which is experienced in late adulthood. An older adult reflects on one’s life and experiences satisfaction or regret while developing wisdom (Dunkel & Sefcek, 2009).

Fowler’s theory, grounded in the works of Piaget (1970), Kohlberg (1976), and Erikson (1950), is based on faith rather than religiousness. Fowler (1981) defines faith as “a person’s way of seeing him- or herself in relation to others against a background of shared meaning and purpose” (p. 4). He believes faith is social and relational and describes a “Dynamic Triad of Faith” in which faith is composed of self, others and world (p. 93).
Fowler (1981) presents six stages of faith development. “Each stage represents a way of believing and reasoning rather than any particular tenets of faith” (Gathman & Nessan, 1997, p. 409). One progresses through Fowler’s six stages sequentially though it is possible for someone to fail to progress beyond one of the beginning stages (Gathman & Nessan, 1997). This parallels the fact that most adults never attain Piaget’s formal operational stage of reasoning and most only reach Kohlberg’s conventional stages of moral judgment (Fowler, 1981). Progression through Piaget’s and Kohlberg’s stages is also similar to progression through Fowler’s faith stages in that “each new stage integrates . . . the operations of all the previous stages” (Fowler, 1981, p. 100).

Fowler’s (1981) first stage of faith development is **Intuitive-Projective Faith**. This stage generally applies to children between the ages of three and seven. **Intuitive-Projective Faith** is evident through a child’s imagination and fantasy world. “It is unfettered by logic, and reflects early awareness of the mysteries of life, death, sex, and cultural taboos” (Gathman & Nessan, 1997, p. 409). During this stage a child’s faith can be greatly influenced by authority figures. Once a child begins to think concretely, transition to stage two begins (Gathman & Nessan, 1997).

**Mythic-Literal Faith** is the second stage in Fowler’s theory of faith development. Often children of school age experience this stage, and begin to establish faith based on cultural beliefs and stories. During this stage, children interpret faith literally and their world is based on equality, fairness, and justice. Transition into stage three only occurs when the narratives cause the child to reflect meaningfully (Fowler, 1981).

Fowler’s stage three is when puberty begins and adolescents experience **Synthetic-Conventional Faith**. At this phase in life, the individual now has the influences of school, work, media, and friends in addition to their immediate families (Gathman & Nessan, 1997). The
adolescent often conforms to the norms of society without fully grasping their own identity (Fowler, 1981). The ideology that the adolescent operates from has not been questioned or examined (Fowler, 1981). Stage three ends when the adolescent engages in critical thinking (Gathman & Nessan, 1997). Transition often occurs when the adolescents leaves their family and must establish their own values without relying on authority figures (Fowler, 1981).

Fowler (1981) applies stage four, **Individuative-Reflective**, to young adults, but recognizes that many adults do not transition into this stage until their mid-thirties or forties. During this stage the adult must take on a burden of responsibility for the lifestyles and beliefs chosen by the individual. It is also in this stage that the opinions of others no longer drive one’s decisions. Once the individual recognizes the complexities of life, stage five can be pursued in an effort to approach greater truth (Fowler, 1981).

Fowler’s stage five is referred to as **Conjunctive Faith**, and is when an individual reconnects symbols with conceptual meanings (Fowler, 1981). It is not often that this stage occurs before midlife. While staying grounded in one’s own tradition, it is during this stage that a true awareness of “other” takes place. With half of one’s life already gone, the individual now seeks to help others generate their own meaning and identity (Fowler, 1981).

Although few people ever experience stage six, **Universalizing Faith**, Fowler (1981) uses figures such as Mother Teresa, Mahatma Gandhi, and Martin Luther King, Jr. as examples of what this stage epitomizes. Transitioning into stage six involves overcoming the division experienced in stage five where an individual struggles to overcome universalizing trepidations while also preserving one’s own well-being (Fowler, 1981). Adults who transition into stage six in Fowler’s theory of faith development, “have become incarnators and actualizers of the spirit of an inclusive and fulfilled human community” (Fowler, 1981, p. 200).
Throughout the last 20 years, Fowler’s theory of faith development has encouraged numerous theoretical and empirical projects. In a review of databases and search engines, over 100 dissertations based on or primarily referring to Fowler’s faith development theory could be located (Streib, 2003). The Faith Styles Scale (FSS) produced by Barnes, Doyle and Johnson (1989) is the most widely utilized questionnaire for measuring Fowler’s faith stages (Timpe, 1999) (as cited in Parker, 2006, p. 6). Leak, Loucks, & Bowlin (1999) “reported a coefficient alpha of .53 when they assessed internal consistency” of the FSS “and an average inter-item correlation of .11” (p. 106). James and Samuels (1999) “report a three month test-retest reliability of .62 (Spearman Rho) on the FSS” (as cited in Parker, 2006, p. 7). A validity issue when using the FSS is “one cannot be sure that it actually measure[s] faith ‘stages’” (Parker, 2006, p. 7). Barnes et al. (1989), however, “report that 65% of their respondents consistently chose the same stage identifying answer. . . and found a positive correlation between different faith styles and how literally vs. symbolically people interpret their religious beliefs” (as cited in Parker, 2006, p. 7).

Like Fowler (1981), Parks (2000) speaks of “faith development”. She describes faith as encompassing self, other, world, and “God.” Self is defined as the “individual meaning maker,” other as “immediate interactions and relationships with those beyond the self,” world as “the recognition of existence and influence of others beyond one’s immediate relationships and interactions,” and “God” as the source of central power or value (Love, 2001, p. 8). Parks’ definition of faith only differs from Fowler’s (1981) “Dynamic Triad of Faith” with her addition of “God.”

Parks (2000) presents a model of faith development composed of three interactive components: forms of cognition (knowing), forms of dependence (affective), and forms of community (interpersonal, social, and cultural influences). Each of these three components is
experienced while the student is in one of four stages: Adolescent/Conventional, Young Adult, Tested Adult, and Mature Adult. The primary differences between Parks’ and Fowler’s models of faith development is Parks has condensed Fowler’s six stages into four and added the young adult stage, which is mainly comprised of traditional-aged college students (Love, 2001). The second primary difference between Parks’ and Fowler’s models of faith development is Parks’ addition of “God” in her definition of faith.

The cognitive component of Parks’ model is based on the works of Perry (1970) and Fowler (1981). The phases of cognitive development in Parks’ model of faith development include progressing through Authority-Bound, Unqualified Relativism, Probing Commitment, Tested Commitment, and Convictional Commitment stages of knowing (Parks, 2000). The cognitive component of Parks’ (2000) model differs from traditional cognitive development theories in that faith exists beyond what is typically perceived as normal perceptions, ultimately beyond knowing, thus causing individuals to seek meaning in life’s most complex dimensions resulting from individual experiences (Love, 2001).

Complementing the cognitive forms in Parks’ model of faith development are the forms of dependence, or the “affective aspects of faith development; focus[ing] on how people feel” (Love, 2001, p. 9). Love (2001) describes this portion of Parks’ model as being the most interactive and “focus[es] on the relationships through which we discover and change our views of knowledge and faith” (p. 9). The phases of dependence include Dependent/Counterdependent, Fragile Inner-dependence, Confident Inner-dependence, and Interdependence.

The third component to Parks’ model of faith development includes addressing forms of community. “Parks’s model focuses particularly on community because it identifies the tension between the desire for agency and autonomy and the desire for belonging, connection, and
intimacy” (Love, 2001, p. 9). The phases of community include Conventional/Diffuse, Mentoring Community, Self-selected Class/Group, and Open to the Other.

During the first stage of faith development, Adolescent/Conventional, the student experiences Authority-Bound knowing. The student cannot know beyond what is “inextricably bound up with the power of the trusted Authority” (Parks, 2005, p. 140), much like what occurs in Fowler’s (1981) first stage of faith development, Intuitive-Projective Faith. At this stage of cognitive development, the student is able to clearly define the difference between right and wrong, but “even the truth of the self is composed by the authority of others” (Parks, 2005, p. 140). While in this stage, the student also experiences the Dependent phase. Just as knowing is authority-bound, the student is dependent upon the authority figure as well. “Feelings of assurance, rightness, confidence, hope, loyalty, fear, disdain, or alarm can be determined by Authority” (Parks, 2005, p. 74). The student remains bound to authority until one experiences a desire to find meaning and truth for oneself (Parks, 2000). In the community component of the model, the student experiences Conventional Community. While experiencing Authority-Bound knowing and being dependent upon an authority figure, the student experiences relationships with others in the context of community that is conventional or familiar. Parks (2000) defines a Conventional Community as “those like us” (p. 92).

While still operating in the stage of Adolescent/Conventional, the student progresses from Authority-Bound knowing to Unqualified Relativism. While in this stage of cognitive development, the student no longer accepts knowledge “as it is,” but is aware “the human mind acts upon its world to compose it” (Parks, 2005, p. 141). Relativism in this stage refers to the fact that “all knowledge is conditioned by the particularity of the relation or context in which it is composed” (Parks, 2005, p. 141). In regard to dependence, Counterdependence is achieved when the student thinks for oneself. “Counterdependence is the move in opposition to Authority”
When the student progresses in the Adolescent/Conventional stage to experiencing Unqualified Relativism and Counterdependence, the student also experiences a Diffuse Community. In this phase, “a person begins to seek an adequate pattern of meaning, a place of commitment within a relativized world” (Parks, 2000, p. 93). “Fowler described this form of social awareness as a ‘self-selected class or group’” but the difference is that Parks’ model has two forms of social awareness experienced in the young adult phase as well as in full adulthood (Parks, 2000, p. 93).

The second stage of development in Parks’ model of faith development is the Young Adult (Parks, 2000). As a Young Adult, the student experiences Probing Commitment as the cognitive component. Parks (2000) describes this as a time when “one explores many possible forms of truth - as well as work roles, relationships, and lifestyles” (p. 67). A student in the Young Adult stage of development also experiences Fragile Inner-Dependence. Fragile does not represent weak, rather emerging inner-dependence that is still vulnerable (Parks, 2000). Young adults often find themselves at a crossroads where one feels as though one should “be on their own,” but feelings of “disappointment, failure, isolation, abandonment, and depression” make the student vulnerable to threats to inner-dependence (Parks, 2000, p. 84). A student in the Young Adult stage of development also experiences a Mentoring Community. This type of community “offers hospitality to the potential of the emerging self, and it offers access to worthy dreams of self and world” (Parks, 2000, p. 93). This stage is critical for a student beginning to construct one’s own truth and understanding of faith.

Following the Young Adult stage is the Tested Adult stage in Parks’ model of faith development. Cognitively, the Tested Adult enters the Tested Commitment phase of knowing. This is different from Probing Commitment in that the Tested Adult no longer explores one’s options. Parks (2000) describes this stage when “One’s form of knowing and being takes on a
tested quality, a sense of fittingness, a recognition that one is willing to make one’s peace and to affirm one’s place in the scheme of things” (p. 69). The main difference between Probing Commitment and Tested Commitment is during the Tested Adult stage as the student is more grounded in one’s self as opposed to the dividedness experienced during the Young Adult stage (Parks, 2000). Once a student progresses to the Tested Adult stage, the student enters the Confident Inner-Dependence phase of dependence. It is at this time the students’ mentors become peers (Parks, 2000). During the Tested Adult stage, the student undergoes the involvement of a Self-selected Class/Group as a form of community. This community is self-selected based on finding others that share similar meanings the student values internally (Parks, 2000). “Adult faith can sustain respectful awareness of communities other than its own; and it can tolerate, if not embrace, the felt tensions between inevitable choices” (Parks, 2000, p. 100).

The final stage in Parks’ model of faith development is reached by the Mature Adult who experiences Convictional Commitment in knowing. Similar to Fowler, Parks believes all phases associated with this stage are not reached until well beyond the college years and midlife (Parks, 2005). Convictional Commitment encompasses knowing that all knowledge is relative, and knowing what one knows on a specific day may drastically change by something new learned the next day (Parks, 2005). The Mature Adult also experiences Interdependence. This movement is to a place of full trust and responsibility (Parks, 2000). The Mature Adult experiences a community described as Open to the Other. While the Tested Adult is still surrounded by others with similar ideals in the Self-selected Class/Group, the Mature Adult finds “the most adequate intimations of truth emerge in dialogue with the other, both within and without” (Parks, 2000, p. 101).

Parks’ (2000) faith development model has been used by Alexander Astin and the Higher Education Research Institution (HERI) to help explain how current theories of spiritual
development fit into the broader scope of student development theories (Donovan, 2002). Under the direction of Astin, “the multi-year Spirituality in Higher Education project explores the trends, patterns, and principles of spirituality and religiousness among college students, and how the college experience both influences and is influenced by spiritual development” (Astin, 2004c, p. 1). Astin’s College Students’ Beliefs and Values Survey (CSBV), the measurement instrument used in the study, identifies eleven content domains in spirituality and religiousness measuring incoming freshmen’s level of spirituality (Astin, 2004). The CSBV is then administered to these same freshmen three years later to chart trends in college students’ spiritual development. Items to measure each domain were originally identified for a pilot survey (Astin, 2004c) and were selected based on inter-judge reliability (Astin, 2004). Factor analysis was used to reduce the initial set of 175 items to smaller sets of items “that had consistent and coherent content and that simultaneously demonstrated a high degree of statistical internal consistency” (Astin, 2004, p.4). This survey results in a spirituality score that can be determined as low, medium, or high. After administering the pilot survey, a reliability analysis was conducted to remove items not contributing to scale reliability (Astin, 2004).

In conclusion, Parks (2000) and Fowler (1981) have based their theories and models on faith rather than religion. Both have grounded their work in the theories and research of Jean Piaget, William Perry, Erik Erikson, and Lawrence Kohlberg (Fowler, 1981; Love & Talbot, 1999; Love, 2001). While Fowler (1981) and Parks (2000) both believe faith encompasses self, other, and world, Parks also includes “God” in this definition. Fowler’s theory of faith development focuses mainly on the change in cognitive abilities experienced with progression in each faith stage. He also incorporates the concept of “other” or community (Fowler, 1981). Parks’ model examines the interaction between the “cognitive, affective, and interpersonal elements of human existence” (Love, 2001, p. 9). Perhaps the greatest differences in Fowler’s
theory and Parks’ model is Parks’ assertion of a young adult stage experienced between adolescence and adulthood as well as Parks’ addition of “God” in her definition of faith (Parks, 2000). She also defines the difference between tested adult and mature adult where Fowler simply has an adult stage (Love, 2001). Fowler’s (1981) theory is also unique in that it singularly identifies a final stage of Universalizing Faith. Notably, Parks’ (2000) final stage of mature adult is more likely to be reached than Fowler’s (1981) final stage.

In examining both Fowler’s (1981) faith development theory and Parks’ (2000) model of faith development, it is important to note the strengths and weaknesses associated with each. Fowler’s (1981) faith development theory is credited with strengths such as its ability to describe the faith development of someone “not in the Christian tradition” (McDargh, 2001, p. 187). “An important feature of Fowler’s theory is that he separates the content of faith (e.g. beliefs and values) from psychological factors that facilitate the operation of faith within the personality (e.g. cognitive, affective, and social development)” (Jardine & Viljoen, 1992, p. 75). The mixed character, or “amalgam of both cognitive-developmental and psychodynamic paradigms” represent another of the theory’s strengths (McDargh, 2001, p. 186). Fowler’s (1981) faith development theory also provides “psychodynamic sensibility” which enhances a researcher’s awareness of the “highly individual and idiosyncratic appropriations” that people experience in the process of faith development (McDargh, 2001, p. 189).

Although Fowler’s (1981) faith development theory has been widely utilized since its publication inception 36 years ago in the *Journal of Gammon Theological Seminary* (Fowler, 1974), it has been critiqued for its scientific vulnerability in that cognitive-developmental and psychodynamic processes have been combined to create a mixed model (McDargh, 2001). Jardine and Viljoen (1992) specify the majority of theorists preferring a rational approach to faith development choose Piaget’s structuralist model, while those preferring an affective approach
generally allude to Erikson’s psychosocial model. “The structuralist approach is hierarchical…whereas psychosocial development is seen to be linear” (Jardine & Viljoen, 1992, p. 78). “The effect of combining these two approaches is to cause an artificial and irreconcilable split between cognitive and psychosocial development” (Jardine & Viljoen, 1992, p. 78). However, had Fowler not combined the approaches of Piaget and Erikson, his theory would not have been unique, resulting in “a repetition of the work of others” (Jardine & Viljoen, 1992, p. 78). Thus, this critique of Fowler’s mixed model approach is also viewed as a strength by some researchers (McDargh, 2001). Another critique of Fowler’s faith development theory is that its measurement approaches are too laborious and cumbersome as a result of the personal interviews used to measure the stage of an individual’s faith (Leak, Loucks, & Bowlin, 1999).

When discussing the critiques or weaknesses of Fowler’s faith development theory, it is also important to note the significance “that current development theories which favor an abstract, theoretical, and critical stance at the higher stages have been designed by male university professors” such as Fowler, Kohlberg, and Piaget (Jardine & Viljoen, 1992, pp. 81-82). Additionally, Kohlberg’s (1976) moral stages were based on the study of male subjects. As a result, these theorists may have unintentionally equated their individual personality preferences with those of the general population (Jardine & Viljoen, 1992). Along with a predominately white male dominated perspective, Fowler’s faith development theory is characterized by a Christian theological view where “grace enhances a person’s relationship with God, and that the resulting creative energy…bestows a power which is capable of transforming the self, other, and the world” (Jardine & Viljoen, 1992, p. 84). As previously stated, Fowler (1981) describes a “Dynamic Triad of Faith” in which faith is composed of self, others and world (p. 93). However, Fowler’s faith development theory has been applied to individuals not of the Christian faith (McDargh, 2001). As a result of the faith development theory’s primarily white, male
perspective along with Christian theological views, implications for studies grounded in Fowler’s and Parks’ works for multicultural students are limited.

After comparing and contrasting Fowler’s (1981) faith development theory and Parks’ (2000) faith development model, the following Venn diagram was created to summarize the findings:

Figure 1. Comparison and Contrast of Fowler and Parks Faith Development Models.
Guiding the research conceptually are the ideals shared by Fowler (1981) and Parks (2000) that assert faith development has a role in development theory, specifically in regard to students. The fact that both Fowler and Park ground their works in faith rather than religion, has also been a guiding principle in designing this study. Most importantly, the researcher recognizes the importance in the uniqueness of Fowler’s theory to combine both cognitive and affective developmental processes. Fowler (1977) acknowledges thinking and feeling must be combined since both influence one another.

Summary

“The spiritual quest is integral to the developmental process; it is common work that generations young and old must share in today’s world” (Parks, 2000, p. 198). While research in spiritual development has roots in student development theory, spirituality’s role in higher education is still in the process of being determined. College students enter the university setting with “high expectations for the role their institutions will play in their emotional and spiritual development” and believe college will promote “their expression of spirituality” (Astin, 2004c, p. 3). Furthermore, “Higher education is intended to serve as the primary site of inquiry, reflection, and cultivation of knowledge and understanding on behalf of the wider culture. As such, institutions of higher education hold a special place in the story of human development, particularly in the process of becoming a young adult in faith” (Parks, 2000, p. 10).

The researcher intends to contribute to the literature by describing the relationship that exists between participation in intercollegiate team sports and one’s level of spirituality as compared to participation in intercollegiate individual sports and one’s level of spirituality. The researcher also believes college student-athletes experience extreme connectedness and opportunities for personal reflection, which in turn may lead to growth in spiritual development. Consequently, the researcher hypothesizes the greater connection experienced in team sports will
lead to these student-athletes experiencing greater levels of spirituality. Currently, great
opportunity exists for further expansion of literature exploring the relationship between college
student-athletes and spiritual development.
CHAPTER 3
MATERIALS AND METHODS

This chapter is divided into three sections. The first section outlines the study’s research questions, data collection methods, and instrumentation. The second section discusses the research design including data analysis and proposed hypotheses. The final section concludes with a discussion of ethical considerations related to this study and potential limitations and challenges.

Research Questions

**Question 1**: Is there a statistically significant difference between student-athletes participating in individual sports and student-athletes participating in team sports as measured by the College Students’ Beliefs and Values Survey?

**Question 2**: Is there a statistically significant difference among student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey?

**Question 3**: Is there a statistically significant difference among student-athletes participating in team sports as measured by the College Students’ Beliefs and Values Survey?

As previously stated, the purpose of this study is to describe the level of spirituality experienced by student-athletes who participate in individual sports as compared to student-athletes who participate in team sports. The first research question addresses this purpose. The second and third research questions were intended to measure within group differences. Specifically, a demographic questionnaire was added to the CSBV survey. The demographic questionnaire component of the CSBV survey provided further information such as each individual student-athlete’s sport, gender, ethnicity, academic classification, and college department. These differences were examined in student-athletes participating in both individual and team sports.
Data Collection Methods

The Compliance Assistant Internet Database was used to create the squad lists from all of the university’s sponsored athletic teams to produce a complete list of all student-athletes in the population. Student-athletes in individual and team sports were identified on these squad lists. All student-athletes on each team’s squad list were invited to attend a regularly scheduled Challenging Athletes’ Minds for Personal Success (CHAMPS) Life Skills Event which they are accustomed to attending monthly. The National Collegiate Athletic Association (NCAA) sponsors the CHAMPS Life Skills program which is designed to enhance six pillars in student-athletes’ lives: equity, healthy choices, positive life skills, safe environments, academic success, and community leadership. CHAMPS Life Skills events include, but are not limited to, speakers, interactive seminars, video presentations, service learning projects, and team-building activities. The researcher partnered with a speaker at the University of Louisiana at Lafayette who presented on the balance between “student” and “athlete” with a particular focus on life after athletics in terms of career choices. The CSBV survey was administered prior to the speaker’s presentation. Student-athletes are encouraged to attend all CHAMPS Life Skills events, which are limited to a maximum of one event per month.

Instrumentation

Development of the CSBV Survey

To begin the construction of the College Students’ Beliefs and Values (CSBV) survey, definitions of spirituality from a variety of fields were examined (Astin et al., n.d.). Next, measurement instruments used during these studies were analyzed. This analysis provided many limitations in the existing instruments used to measure spirituality and religiousness (Astin et al., n.d.). The CSBV survey research team including Bryant, Szelenyi, and a Technical Advisory Panel (TAP), sought to create an instrument where no assumptions of students’ religious or
spiritual perspective would be made, references to “God” or a “Supreme Being” would be limited, both spiritual beliefs and practices would be examined, and students’ who defined spirituality in terms of religiousness or in other ways would be accommodated (Astin et al., n.d.). The research team relied on Hill and Hood’s (1999) analysis of 125 various scales that had been previously developed in research related to spiritual development (Astin et al., n.d.). Twelve content areas were originally named and used as an initial framework for creating the instrument (Astin et al., n.d.). Determining the items contained in each domain was done through inter-judge agreement (Astin et al., n.d.). Finally, the research team created a pilot survey based on these 12 domains and administered the survey to 3,700 college juniors from 46 different universities in Spring 2003 (Astin et al., n.d.). For the purposes of this study, spirituality was operationally defined as the measurement indicated by Astin’s low, medium, and high scores for each subscale as measured in the CSBV survey.

In 2004 a revised CSBV survey was constructed, reducing the instrument from four pages to two, and was administered in conjunction with the Cooperative Institutional Research Program (CIRP) Freshman Survey (Astin et al., n.d.). After this collection of data took place, a normative sample was created, eliminating results from colleges with low response rates (Astin et al., n.d.). Most schools were included in the normative sample if completed surveys resulted in at least a 40 percent response rate. Twenty-seven institutions were eliminated from the normative sample, while a total of 98,593 students from 209 universities were retained (Astin et al., n.d.). Institutions used in this pilot test were classified according to 13 stratifications based on their public or private status, level as a college or university, religious affiliation, and academic selectivity requirements for admission. The data from the normative sample were then weighted to simulate the responses should all first-time, full-time enrolled students attending undergraduate colleges and universities, have completed and returned the CSBV survey (Astin et
Two weighted values were applied to the data in the normative sample (Astin et al., n.d.). A “within-institution” weight increased the sample size at any institution to equate the total number of first-time, full-time enrolled students at that particular institution in the fall 2004. A “between-institution” weight accounted for over- or under-sampling according to institutional type. Thus, weighted numbers of males and females in any of the 13 institution stratifications matched the national population for all the first-time, full-time enrolled students at a university in the same institutional stratification in the fall 2004 (Astin et al., n.d.).

Finally, in 2007, a longitudinal follow up survey was administered to freshmen who had completed the 2004 CSBV survey (Astin et al., n.d.). Samples of students who had completed the 2004 CSBV were selected to complete the 2007 CSBV follow up survey at the end of their junior year (Astin et al., n.d.). A representative sample of 150 institutions was selected to participate in the follow up survey at no cost while the remaining 57 institutions were allowed to participate at cost (Astin et al., n.d.). In order to participate, institutions were required to provide updated addresses and email addresses for all participating students (Astin et al., n.d.). Students selected in the sample were mailed a post card reminding them of their previous participation in the 2004 CSBV survey and that a follow up packet would be arriving shortly in the mail. Included in the packet was a letter introducing the 2007 CSBV follow up survey, a hard copy of the survey, and a link to a website where the survey could be completed online should the student prefer the web-based method. A stamped, addressed, return envelope was also enclosed along with either a two or five dollar incentive. Reminder emails were also sent to students to improve response rates. Surveys were returned with a 40 percent response rate, including 14,527 students from 136 institutions in the 2007 sample (Astin et al., n.d.).

Weighted values were assigned to account for any biases (Astin et al., n.d.). Weights were assigned using multivariate analyses to measure the dependent variable: response versus
non response, to the independent variables: student responses to the 2004 survey (Astin et al., n.d.). The reciprocal of the formula found in these multivariate analyses were applied to each respondent in 2007, accounting for any bias found in the 2004 data (Astin et al., n.d.). Thus, the highest weight was applied to the 2007 respondents who were most similar to non-respondents (Astin et al., n.d.). Weights were also applied as described in the 2004 survey administration to account for institutional differences and to equate results that would have been expected if all possible respondents had responded to the 2007 follow-up CSBV survey (Astin et al., n.d.).

Development of Scales

Constructing scales to measure students’ religious and spiritual lives and development involved “a complex combination of hypothesis-testing and empirical exploration where [the research team] sought to identify clusters of items that had consistent and coherent content and that simultaneously demonstrated a high degree of statistical internal consistency” (Astin et al., n.d.). To begin, six a priori clusters were hypothesized to represent constructs of conservative Christian, liberal Christian, cultural creative, well-being, religious skepticism, and self perceived spiritual/religious change in college (Astin et al., n.d.). Remaining items were either placed into the interior construct measuring “values, beliefs, and perceptions” or into the exterior construct measuring “behaviors, experiences, and actions” (Astin et al., n.d.). Factor analyses were conducted on these eight constructs (Astin et al., n.d.). Once a potential scale was identified based on factor analysis, Cronbach’s alpha was performed to test for reliability analysis and identified items that needed to be eliminated if they were not contributing to scale reliability (Astin et al., n.d.). Any items appearing on more than one scale were either eliminated or placed on the scale where it had the highest correlation (Astin et al., n.d.). No single item was used in more than one scale to avoid any experimental dependence between scales (Astin et al., n.d.).
While 19 scales were originally developed, only 12 scales related specifically to spirituality and these 12 scales remained in the construction of the CSBV survey (Astin et al., n.d.). These 12 scales were grouped according to items measuring spirituality, religiousness and spiritually-related qualities. Measures of spirituality included scales of spiritual identification, spiritual quest, and equanimity. Religiousness measures included scales of religious commitment, religious engagement, religious/social conservatism, religious skepticism, and religious struggle. Measures of spiritually-related qualities included charitable involvement, compassionate self-concept, ethic of caring, and ecumenical worldview.

Due to the fact that raw scores on these scales carry no absolute meaning, low and high scores were defined for each scale (Astin et al., n.d.). These scores allow for comparisons of group differences and the interpretation of changes in scores (Astin et al., n.d.). The CSBV research team determined what degree of responses to a particular set of questions a student would need to indicate in order to receive a score qualified as either low or high.

Strengths of the CSBV Survey

In an attempt to make the scales applicable to respondents of various religious and non-religious backgrounds, the CSBV research team limited the use of terminology referring to specific religious beliefs or institutions (Astin et al., n.d.). The CSBV research team also avoided placing all items that define a particular construct in a single list in an effort to comprise a set of heterogeneous items (Astin et al., n.d.). Typically, researchers have measured single constructs by creating one list containing homogeneous items, asking respondents to answer using a single response mode (Astin et al., n.d.). The CSBV research team wanted to avoid this method, finding such an approach often yields “spuriously high reliabilities” (Astin et al., n.d.). Another characteristic in the creation of the CSBV contributing to the instrument’s strength can be attributed to the replicated data received in two independent CSBV surveys in 2004 and 2007.
following the 2003 pilot survey. Although the methods of distribution varied in the 2003 pilot survey, 2004 freshman survey, and 2007 follow up survey, the scale measurements indicated similar reliabilities and intercorrelations across each of the different surveys (Astin et al., n.d.). Thus, these scales indicate the ability to produce reliable data regardless of sampling variations, survey content, and administration methods (Astin et al., n.d.).

Description of the Measures

Three pilot surveys administered nationally from 2003 – 2007 were used in the development and replication of 12 measures consisting of five measures of religiousness, three measures of spirituality, and four measures of spiritually-related qualities (Astin et al., n.d.). Reliability of each subscale was achieved using test-retest reliability in 2004 and 2007. Most Cronbach’s alphas for each subscale increased in the 2007 CSBV survey, indicating increased reliability or consistency in the scales reflecting the constructs being measured. For the purposes of this study, the 2007 version of the CSBV survey was used to gather data, so the researcher refers to the 2007 Cronbach’s alphas when discussing the reliability of each subscale. The majority of the reported Cronbach alphas are relatively high, but a few are only slightly above .70. Nunnally (1978) has confirmed Cronbach alphas .70 and above are satisfactory.

The first subscale under measures of spirituality is **Spiritual Identification** which was conceptually defined as the extent to which a student believes in the sacred quality of life, strives to grow spiritually, acknowledges all people are spiritual beings, and reports having had a spiritual experience (Astin et al., n.d.). This scale reflects one’s ability to view oneself in spiritual terms. The **spiritual identification** scale received a .89 alpha with 13 items included in this subscale. This scale predicts the likelihood of a student, after three years in college, to engage in readings on other religions or spirituality \( r = .42 \) and increases the chance that a student will
report their professors encouraged individual expressions of spirituality ($r = .28$) (Astin et al., n.d.).

**Spiritual quest** was conceptually defined as a student’s interest in seeking meaning and purpose in life, searching for answers to life’s mysteries, and constructing a meaningful philosophy of life (Astin et al., n.d.). The **spiritual quest** scale has an alpha of .82 and nine items used to measure this subscale. Scores reported by first time students on this scale predict the probability that students will enroll in a religious studies course ($r = .20$) and partake in reflective journaling exercises during college ($r = .12$) (Astin et al., n.d.).

**Equanimity** was conceptually defined as the degree in which a student feels centered, finds meaning in difficult times, and feels positive about one’s direction in life (Astin et al., n.d.). The **equanimity** scale has a .72 alpha and only five items. This lower alpha may indicate that equanimity is not something that can be adequately measured in a young adult who is of college age. Perhaps this scale would more accurately measure adults later in life when a complete reflection of one’s life can be assessed. **Equanimity** measures first time students’ likelihood to participate in meditation ($r = .22$) and reflection ($r = .15$) (Astin et al., n.d.).

Five scales were used to measure religiousness. Each of these scales is evaluated in terms of its relationship to spirituality. The first of these scales, **religious commitment**, was conceptually defined as the degree in which students seek religious teachings on a daily basis, acknowledge religion to be helpful, and gain strength through trusting in a higher power (Astin et al., n.d.). Essentially, this scale seeks to measure how spiritual and religious beliefs factor into a student’s life. The **religious commitment** scale received an alpha of .97 which indicates this scale can be measured with a high degree of accuracy. Thirteen items were used to measure this scale. The measurement of **religious commitment** indicated in a student’s initial year of
enrollment predict the chances that a student will pray \((r = .67)\) and engage in religious discussions with students and faculty \((r = .40)\) (Astin et al., n.d.).

**Religious engagement** was conceptually defined as a student’s documented behavior of attending religious services, praying, and reading sacred texts (Astin et al., n.d.). This scale goes beyond what religious commitment is measuring to specifically measure a student’s related behaviors. The alpha for the **religious engagement** scale was .88. This subscale contains nine items. **Religious engagement** measures the likelihood of a first time students’ involvement in a religious organization on campus \((r = .41)\), enrolling in a religious studies course \((r = .31)\), and attending a religious mission trip \((r = .31)\) (Astin et al., n.d.).

**Religious/social conservatism** was conceptually defined as the extent in which a student rejects things such as casual sex and abortion, believes prayer initiates receiving forgiveness, and believes those who do not believe in God will be punished (Astin et al., n.d.). **Religious/social conservatism** measured a .81 alpha and included seven items. This scale measures the predictive validity of first time students reading sacred religious texts \((r = .55)\) and avoiding alcohol consumption during college \((r = .22)\) (Astin et al., n.d.).

**Religious skepticism** can conceptually be defined as a student’s likelihood to believe that science explains everything and to disbelieve in the ideal of life after death (Astin et al., n.d.). This scale has an alpha of .86 and contains nine items. First time college students’ scores on **religious skepticism** predict the chances a student will not have a religious preference after three years of collegiate enrollment \((r = .40)\) and will never engage in religious singing or chanting in college \((r = .50)\) (Astin et al., n.d.).

**Religious struggles** conceptually reflect the extent to which a student feels disconcerted about religious matters, feels apart from God, or have questioned one’s religious beliefs and values (Astin et al., n.d.). The alpha for the **religious struggles** scale was .77. This scale was
measured by seven items. **Religious struggles** scores predict negatively a first time student’s psychological well-being (r = -.27) and positively predict the probability a student will engage in self-reflection (r = .13) (Astin et al., n.d.).

**Charitable Involvement** is the first scale used to measure spiritually-related qualities and was defined conceptually as the amount of time and effort a student places in community service projects, donating money, and helping others with personal conflicts (Astin et al., n.d.). Spiritually related qualities are those that are expected to be exemplified by spiritual persons. The **charitable involvement** scale had only a modest .71 alpha and included seven items. This scale predicts the likelihood a student will participate in a service learning course (r = .22) or engage in leadership training (r = .20) (Astin et al., n.d.).

**Compassionate self-concept** conceptually defines students’ self-ratings on the qualities of compassion, kindness, generosity, and forgiveness (Astin et al., n.d.). The alpha for **compassionate self-concept** was .78. This scale contains four items. The predictive validity of this scale indicates the chance a student will help friends with personal issues (r = .14) or volunteer during college (r = .12) (Astin et al., n.d.).

**Ethic of caring** can be conceptually defined as the extent in which a student values others during times of hardship, attempts to reduce pain and suffering in the world, and contributes to making the world a better place (Astin et al., n.d.). The **ethic of caring** scale measured a .82 alpha with eight items. This scale predicts the likelihood of a student participating in volunteer work (r = .21), making charitable donations (r = .18), and enrolling in service learning courses (r = .15) (Astin et al., n.d.).

**Ecumenical worldviews** conceptually reflect a student’s interest in understanding a variety of religious traditions, seeks to learn about other countries and cultures, feels connected to all humanity, and supports the idea that love is the root of all great religions (Astin et al., n.d.).
The alpha for **ecumenical worldviews** was .70. This subscale was measured using twelve items. **Ecumenical worldviews** measures the likelihood of first time students to socialize with students with races/ethnicities other than their own \( r = .13 \), engaging in a study abroad program \( r = .11 \), and having religious discussions with students and faculty \( r = .20 \) (Astin et al., n.d.).

The CSBV research team used a variety of expert validations for each subscale. The following charts indicate the measurement instruments used to validate each subscale as well as literature used when like measurement instruments were not available.

**Summary of CSBV Survey**

The scales proved to have adequate reliability and validity (Astin et al., n.d.). Concurrent validity is provided by the fact that the 12 scales differentiate in significant ways among students with varying religious associations (Astin et al., n.d.). Construct validity was accomplished in the creation of the scales. After a reliability analysis was run on each potential scale, it was then correlated with other questionnaire items in an effort to measure whether or not the scale correlated as expected with other questionnaire items and scales (Astin et al., n.d.), thus providing construct validity. For the purposes of the Higher Education Research Institute’s longitudinal study, the CSBV survey also proved to have predictive validity in each scale. Scale scores collected by first time students correlated highly with selected college behaviors as measured in the students’ third year of college (Astin et al., n.d.).

The CSBV research team believes these 12 scales can assist student development researchers in tracking critical aspects of student development that have yet to receive much attention in higher education research (Astin et al., n.d.). These measurement tools are also intended to provide insight to academics seeking to incorporate a holistic education approach to students’ undergraduate experience (Astin et al., n.d.).
Table 1. Expert Validation of Subscales.

<table>
<thead>
<tr>
<th>CSBV Survey Subscale</th>
<th>Instrument Validated Against</th>
<th>Author of Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religious Commitment Scale</td>
<td>Intrinsic Religious Orientation Scale</td>
<td>Allport &amp; Ross (1967)</td>
</tr>
<tr>
<td>Religious Commitment Scale</td>
<td>Commitment Scale</td>
<td>Williams (1999)</td>
</tr>
<tr>
<td>Religious Commitment Scale</td>
<td>Spiritual Transcendence Index</td>
<td>Seidlitz et al. (2002)</td>
</tr>
<tr>
<td>Religious Commitment Scale</td>
<td>Awareness Scale</td>
<td>Hall &amp; Edward (2002)</td>
</tr>
<tr>
<td>Religious Commitment Scale</td>
<td>Religiousness Factor</td>
<td>MacDonald (2000)</td>
</tr>
<tr>
<td>Religious Commitment Scale</td>
<td>Daily Spiritual Experience Scale</td>
<td>Underwood &amp; Terisi (2002)</td>
</tr>
<tr>
<td>Religious Engagement Scale</td>
<td>“Religiousness” Factor</td>
<td>MacDonald (2000)</td>
</tr>
<tr>
<td>Religious Engagement Scale</td>
<td>Organizational Religiousness Scale</td>
<td>Idler (1999)</td>
</tr>
<tr>
<td>Spiritual Identification Scale</td>
<td>“Cognitive Orientation Toward Spirituality” Factor</td>
<td>MacDonald (2000)</td>
</tr>
<tr>
<td>Spiritual Identification Scale</td>
<td>“Experiential/Phenomenological Dimension of Spirituality” Factor</td>
<td>MacDonald (2000)</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Religious/Social Conservatism Scale</td>
<td>Negative pole of the “Spiritual Experience Index”</td>
<td>Genia (1991)</td>
</tr>
<tr>
<td>Ecumenical Worldview Scale</td>
<td>Positive pole of the “Spiritual Experience Index”</td>
<td>Genia (1991)</td>
</tr>
<tr>
<td>Equanimity Scale</td>
<td>Daily Spiritual Experience Scale</td>
<td>Underwood &amp; Terisi (2002)</td>
</tr>
<tr>
<td>Equanimity Scale</td>
<td>Existential Well-Being Scale</td>
<td>MacDonald (2000)</td>
</tr>
</tbody>
</table>
Table 2. Validation Using Literature Pertaining to Educational Goals.

<table>
<thead>
<tr>
<th>CSBV Survey Subscale</th>
<th>Educational Goals (Relevant to)</th>
<th>Author of Educational Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compassionate Self-Concept Scale, Ethic of Caring Scale, &amp; Charitable Involvement Scale</td>
<td>Spiritual development “should be a focus in the schools” (Beck, 1986, p. 148).</td>
<td>Beck (1986)</td>
</tr>
<tr>
<td>Compassionate Self-Concept Scale, Ethic of Caring Scale, &amp; Charitable Involvement Scale</td>
<td>Spiritual development pertains to “love” and a “caring approach to other people” (Beck, 1986, p. 153).</td>
<td>Beck (1986)</td>
</tr>
<tr>
<td>Ethic of Caring Scale &amp; Compassionate Self-Concept Scale</td>
<td>Noddings (1984) defines two forms of caring exist, one of which is “Caring-about.”</td>
<td>Noddings (1984)</td>
</tr>
<tr>
<td>Charitable Involvement Scale</td>
<td>Noddings (1984) defines two forms of caring exist, one of which is “Caring-for.”</td>
<td>Noddings (1984)</td>
</tr>
<tr>
<td>Ecumenical Worldview Scale</td>
<td>Elkins et al. (1988) discuss altruism, noting a feeling of belonging to a common humanity.</td>
<td>Elkins et al. (1988)</td>
</tr>
<tr>
<td>Scale</td>
<td>Reflects the “Mission in Life” spirituality dimension</td>
<td>Elkins et al. (1988)</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>------------------------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Spiritual Quest Scale</td>
<td>Reflects the “Sacredness of Life” spirituality dimension</td>
<td>Elkins et al. (1988)</td>
</tr>
<tr>
<td>Spiritual Identification Scale</td>
<td>Reflects the “Sacredness of Life” spirituality dimension</td>
<td>Elkins et al. (1988)</td>
</tr>
<tr>
<td>Compassionate Self-Concept Scale</td>
<td>Reflects the “Altruism” spirituality dimension</td>
<td>Elkins et al. (1988)</td>
</tr>
<tr>
<td>Charitable Involvement Scale</td>
<td>Reflects the “Altruism” spirituality dimension</td>
<td>Elkins et al. (1988)</td>
</tr>
<tr>
<td>Ethic of Caring Scale</td>
<td>Reflects the “Altruism” spirituality dimension</td>
<td>Elkins et al. (1988)</td>
</tr>
</tbody>
</table>
Table 3. Subscale Reliability.

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Reliability as Indicated by Cronbach’s Alpha in 2007 CSBV (Astin et al., n.d.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritual Identification Scale</td>
<td>.89 (13 items)</td>
</tr>
<tr>
<td>Spiritual Quest Scale</td>
<td>.82 (9 items)</td>
</tr>
<tr>
<td>Equanimity Scale</td>
<td>.72 (5 items)</td>
</tr>
<tr>
<td>Religious Commitment Scale</td>
<td>.97 (13 items)</td>
</tr>
<tr>
<td>Religious Engagement Scale</td>
<td>.88 (9 items)</td>
</tr>
<tr>
<td>Religious/social Conservatism Scale</td>
<td>.81 (7 items)</td>
</tr>
<tr>
<td>Religious Skepticism Scale</td>
<td>.86 (9 items)</td>
</tr>
<tr>
<td>Religious Struggles Scale</td>
<td>.77 (7 items)</td>
</tr>
<tr>
<td>Charitable Involvement Scale</td>
<td>.71 (7 items)</td>
</tr>
<tr>
<td>Compassionate Self-Concept Scale</td>
<td>.78 (4 items)</td>
</tr>
<tr>
<td>Ethic of Caring Scale</td>
<td>.82 (8 items)</td>
</tr>
<tr>
<td>Ecumenical Worldviews Scale</td>
<td>.70 (12 items)</td>
</tr>
</tbody>
</table>
Research Design

Context

The researcher utilized a non-experimental, explanatory, causal-comparative research design to answer the proposed research questions. According to Johnson and Christensen (2008), “In causal-comparative research, the researcher studies the relationship between one or more categorical independent variables and one or more quantitative dependent variables” (p. 43). Explanatory research is conducted when researchers attempt to test hypotheses or explain phenomenon (Johnson & Christensen, 2008). The purpose of this study was to describe the level of spirituality experienced by student-athletes who participate in individual sports as compared to student-athletes who participate in team sports.

The sample was taken from the University of Louisiana at Lafayette, a large, doctoral granting, high research activity, NCAA Division I institution. Utilizing all student-athletes who participate in individual sports and team sports from one university reduced threats to internal validity because all students are exposed to the same environment. At the end of the spring semester both groups were administered the CSBV survey to determine whether or not the student-athletes who participate in team sports experienced higher levels of spirituality as compared to the student-athletes who participate in individual sports. These results were also compared within groups to test for differences in levels of spirituality.

Variables

Variables in this study include athletic participation in individual sports, athletic participation in team sports, level of spirituality, and the 12 content domains measured in the CSBV survey: spiritual identification, spiritual quest, equanimity, religious commitment, religious engagement, religious/social conservativism, religious skepticism, religious struggle, ethic of caring, compassionate self-concept, charitable involvement, and ecumenical worldview.
Conceptually, athletic participation in individual sports was defined as a student’s involvement with an intercollegiate team in one or more of the following sports: men’s tennis, women’s tennis, men’s golf, men’s indoor track, women’s indoor track, men’s outdoor track, women’s outdoor track, men’s cross country, and women’s cross country. Conceptually, athletic participation in team sports was defined as a student’s involvement with an intercollegiate team in one or more of the following sports: men’s football, men’s basketball, women’s basketball, men’s baseball, women’s softball, women’s soccer, and women’s volleyball.

Operationally, athletic participation in both individual and team sports was measured by the approval of the head coach as indicated on the team’s current squad list, identifying all participants in a particular sport. Conceptually, level of spirituality was defined as one’s search for and understanding of one’s meaning and purpose in life. Operationally, one’s level of spirituality was measured by the composite score assigned by the College Students’ Beliefs and Values Survey.

Data Analysis

The researcher used Analysis of Variance (ANOVA) to analyze the data. One-way analysis of variance is “a statistical technique used to determine whether samples from two or more groups come from populations with equal means” (Hair, Black, Babin, Anderson, & Tatham, 2006). The purposes for using ANOVA include determining whether or not observed differences represent an occurrence by chance or a methodical outcome and to compare score variability within a particular group (Shavelson, 1996). The varying forms of ANOVA include one-way analysis of variance, factorial analysis of variance, randomized-blocks analysis of variance, and Split-Plot analysis of variance (Shavelson, 1996).

For the purposes of this study, the researcher utilized one-way analysis of variance. The reasons for choosing one-way ANOVA are as follows:
1. One-way ANOVA is used to analyze data containing one independent variable that generates two or more groups (Shavelson, 1996).

2. Analysis of Variance can be used to project the probability that variability in means across groups result from sampling error (Hair et al., 2006).

3. ANOVA provides the researcher with increased flexibility when testing for group differences (Hair et al., 2006).

4. Analysis of Variance is more effective in testing independent variables with multiple groups than using multiple t-tests where the Type I error probability increases with each t-test conducted (Hair et al., 2006).

Hair et al. (2006) present a six-stage model-building framework providing the steps necessary to design a one-way analysis of variance. These stages consist of (1) identify a single independent variable with two or more levels, (2) selecting the proper sample size, (3) note assumptions, (4) statistically test for within group variance and between group variance, (5) calculate the F statistic, and (6) interpret the F statistic. During the first stage, the researcher selected the independent variable (student athletes), which is divided into two groups (student-athletes participating in individual sports and student-athletes participating in team sports). The dependent variable is the composite score received by each student on the CSBV survey in each of the 12 scales. Analysis of variance was selected as the research design with one-way ANOVA as the specific estimation technique. Assumptions associated with ANOVA include: (1) independence, (2) normality, and (3) homogeneity of variances (Shavelson, 1996).
Research Hypotheses

**Hypothesis 1:**
Student-athletes participating in team sports will demonstrate statistically significant differences in levels of spirituality as compared to student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey.

Null 1: No statistically significant difference exists in the level of spirituality experienced by student-athletes participating in team sports as compared to student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey.

**Hypothesis 2:**
Statistically significant differences do exist in levels of spirituality experienced by student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey.

Null 2: No statistically significant differences in levels of spirituality exist in student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey.

**Hypothesis 3:**
Statistically significant differences do exist in levels of spirituality experienced by student-athletes participating in team sports as measured by the College Students’ Beliefs and Values Survey.

Null 3: No statistically significant differences in levels of spirituality exist in student-athletes participating in team sports as measured by the College Students’ Beliefs and Values Survey.

Ethical Considerations

Anonymity was eliminated when student-athletes completed an informed consent prior to completing the CSBV survey. All students, however, maintained their confidentiality through the
data collection process. All instrumentation was coded numerically, eliminating the need for identifying information. The researcher notified participants of the purpose of the research prior to receiving their consent and informed them that their participation in the survey was voluntary; thus anyone could have opted out of completing the survey instrument.

Limitations/Challenges

The researcher recognized limitations to this study included the sometimes uncomfortable nature of addressing spiritual issues. Another limitation was that student-athletes were less likely to complete the survey truthfully when completing the survey in an unfamiliar environment or in the presence of their peers. Social desirability may have also been a limitation in that the student-athletes attempted to provide answers that they thought would be more acceptable. Other limitations in causal-comparative research included no manipulation of the independent variable, difficulty in determining temporal ordering of variables, and many other reasons exist as to why a relationship between variables is observed (Johnson & Christensen, 2008). Internal reliability of this study was limited as the sample was derived from a single institution in one geographical location. Internal validity was also limited as student-athletes were predisposed to many beliefs and values systems prior to participating in collegiate athletics. Measuring the spirituality levels of student-athletes at a single university also limited the generalizability of the results to other student-athletes, thus limiting external validity. The researcher also recognizes her own Christian beliefs presented a bias when discussing multi-cultural religious and spiritual values.

Methods Summary

The instrumentation used for this study was the College Students’ Beliefs and Values Survey (CSBV). The items in this instrument were Likert type items and required self-reporting. The instrumentation’s validity and reliability have been reported in this chapter along with the
participants, data collection method, and hypotheses. One-way analysis of variance was used to analyze the data. Ethical considerations and limitations to the study have been outlined as well.
CHAPTER 4
RESULTS AND FINDINGS

This chapter clarifies the findings of this study; particularly, a description of the relationship between individual and team sport student-athletes and their self-reported levels of spirituality as determined by the College Students’ Beliefs and Values Survey. The beginning of this chapter will restate the research questions and supply demographic information describing the sample population’s sport, gender, ethnicity, academic classification, college department, and residence classification. The next section will provide descriptive statistics for the study instrument, including a comparison of mean scores and standard deviations for each subscale in the sample population compared to Astin’s 2007 sample population. The third section will describe the measures of central tendency used to analyze the study instrument as well as provide further examination of the demographic information. Finally, the hypotheses will be restated as well as the results of the ANOVA.

Sample Demographics

The participants in this study were Division I student-athletes at the University of Louisiana at Lafayette. All student-athletes appeared on an official NCAA squad list for the 2008-2009 academic year. The data for this study were collected at the end of the spring semester on April 27, 2009. The researcher partnered with a speaker at the University of Louisiana at Lafayette who presented on the balance between “student” and “athlete” with a particular focus on life after athletics in terms of career choices. The CSBV survey was administered prior to the speaker’s presentation. Student-athletes were given an envelope to place their completed survey in and asked to place the completed survey in the sealed envelope in a bin on their way out of the presentation. This process ensured the data were confidential and the participants were anonymous to the researcher. Of the 338 student-athletes who attended the
CHAMPS Life Skills presentation and were given a survey, 226 completed the CSBV survey and 200 were included in the study. Twenty-six variables were removed from the original data set after running box plots and determining that these variables were outliers. Team sports are indicated by “1.00” and individual sports are indicated by “2.00” in the following box plots.

Box plots were selected as the statistical method for identifying outliers in the current study because box plots provide a clear graphical representation indicating the distribution of the data (Field, 2005). Utilizing box plots is the preferred method for identifying outliers (Field, 2005). Outliers need to be removed from the data set in order to prevent bias of the mean and inflating the standard deviation (Field, 2005). These figures allow the researcher to easily identify outliers that fall outside of the normal distribution. In the box plots below, the shaded box region indicates the middle 50% of scores within the normal distribution (Field, 2005). The upper and lower lines (whiskers) mark the outer boundary of the top and bottom 25% of scores falling outside the middle 50% of scores, shaded within the box (Field, 2005). The following box plots were included in this chapter to provide a clear depiction of the distribution of data in each subscale, thus stressing the importance of removing outliers to strengthen the data prior to statistical analysis.

Figure 2 represents the distribution of scores reported by student-athletes participating in team sports (1.00) and individual sports (2.00) in the spiritual identification scale. This box plot shows the numbers which correspond with the student-athletes who answered outside the normal distribution. Three student-athletes provided responses that were outside of the normal distribution for team sport athletes. Two of the respondents indicated scores that were above the mean of 2.16 and one respondent was below the mean. One student answered outside the normal distribution for individual sport athletes reporting a score below the mean. This figure was
utilized to remove the outliers’ responses to the spiritual identification scale in the CSBV Survey.

Figure 2. Box Plot of Spiritual Identification Subscale Compared to Team and Individual Sports

Figure 3 represents the distribution of scores reported by student-athletes participating in team sports (1.00) and individual sports (2.00) in the spiritual quest scale. This box plot shows the numbers which correspond with the student-athletes who answered outside the normal distribution. There were no outliers reported by student-athletes in team sports. Individual sport student-athletes had two athletes outside the normal distribution, both above the mean and below
the mean. This figure was utilized to remove the outliers’ responses to the spiritual quest scale in
the CSBV Survey.

Figure 3. Box Plot of Spiritual Quest Subscale Compared to Team and Individual Sports

Figure 4 represents the distribution of scores reported by student-athletes participating in team
sports (1.00) and individual sports (2.00) in the equanimity scale. This box plot shows the
numbers which correspond with the student-athletes who answered outside the normal
distribution. Three team sport student-athletes reported scores outside the normal distribution,
above the mean score of 1.6. Only one student-athlete participating in individual sports reported
a score outside of the normal distribution, above the mean. This figure was utilized to remove the outliers’ responses to the equanimity scale in the CSBV Survey.

Figure 4. Box Plot of Equanimity Subscale Compared to Team and Individual Sports

Figure 5 represents the distribution of scores reported by student-athletes participating in team sports (1.00) and individual sports (2.00) in the religious commitment scale. This box plot shows the numbers which correspond with the student-athletes who answered outside the normal distribution. Team sport student-athletes reported two scores outside the normal distribution, above the mean of 1.86. Individual sport student-athletes reported five scores outside the normal
distribution, above the mean. This figure was utilized to remove the outliers’ responses to the religious commitment scale in the CSBV Survey.

Figure 5. Box Plot of Religious Commitment Subscale Compared to Team and Individual Sports

Figure 6 represents the distribution of scores reported by student-athletes participating in team sports (1.00) and individual sports (2.00) in the religious struggle scale. This box plot shows the numbers which correspond with the student-athletes who answered outside the normal distribution. Only two team sport student-athletes reported scores outside the normal distribution,
below the mean of 2.28. This figure was utilized to remove the outliers’ responses to the religious struggle scale in the CSBV Survey.

Figure 6. Box Plot of Religious Struggle Subscale Compared to Team and Individual Sports

Figure 7 represents the distribution of scores reported by student-athletes participating in team sports (1.00) and individual sports (2.00) in the religious engagement scale. This box plot indicates there were no student-athletes who answered outside the normal distribution of this scale. The mean score for the religious engagement scale was 2.41.
Figure 7. Box Plot of Religious Engagement Subscale Compared to Team and Individual Sports

Figure 8 represents the distribution of scores reported by student-athletes participating in team sports (1.00) and individual sports (2.00) in the religious/social conservatism scale. This box plot shows the number which corresponds with the student-athlete who answered outside the normal distribution. Only one individual sport student-athlete reported a score outside the normal distribution, above the mean of 2.21. This figure was utilized to remove the outlier’s responses to the religious/social conservatism scale in the CSBV Survey.

Figure 9 represents the distribution of scores reported by student-athletes participating in team sports (1.00) and individual sports (2.00) in the religious skepticism scale. This box plot shows...
the numbers which correspond with the student-athletes who answered outside the normal distribution. Team sport student-athletes reported three scores outside the normal distribution, below the mean of 2.43. Individual sport student-athletes reported two scores outside the normal distribution. Once score was above the mean and one score was below the mean. This figure was utilized to remove the outliers’ responses to the religious skepticism scale in the CSBV survey.

Figure 8. Box Plot of Religious/Social Conservatism Subscale Compared to Team and Individual Sports
Figure 9. Box Plot of Religious Skepticism Subscale Compared to Team and Individual Sports

Figure 10 represents the distribution of scores reported by student-athletes participating in team sports (1.00) and individual sports (2.00) in the charitable involvement scale. This box plot shows the numbers which correspond with the student-athletes who answered outside the normal distribution. One team sport student-athlete reported a score outside the normal distribution, above the mean score of 2.16. Two individual sport student-athletes scored outside the normal distribution, below the mean. This figure was utilized to remove the outliers’ responses to the charitable involvement scale in the CSBV Survey.
Figure 10. Box Plot of Charitable Involvement Subscale Compared to Team and Individual Sports

Figure 11 represents the distribution of scores reported by student-athletes participating in team sports (1.00) and individual sports (2.00) in the ethic of caring scale. This box plot indicates there were no student-athletes who answered outside the normal distribution. The mean score for the ethic of caring scale was 2.43.

Figure 12 represents the distribution of scores reported by student-athletes participating in team sports (1.00) and individual sports (2.00) in the ecumenical worldview scale. This box plot
shows the numbers which correspond with the student-athletes who answered outside the normal
distribution. Team sport student-athletes reported four scores outside the normal distribution.
Three scores were below the mean of 1.98, while one score was above the mean. Three student-
athletes participating in individual sports reported scores outside the normal distribution, above
the mean. This figure was utilized to remove the outliers’ responses to the ecumenical worldview
scale in the CSBV Survey.

Figure 11. Box Plot of Ethic of Caring Subscale Compared to Team and Individual Sports
Figure 12. Box Plot of Ecumenical Worldview Subscale Compared to Team and Individual Sports

Figure 13 represents the distribution of scores reported by student-athletes participating in team sports (1.00) and individual sports (2.00) in the compassionate self concept scale. This box plot shows the number which corresponds with the student-athlete who answered outside the normal distribution. Only one team sport student-athlete reported a score outside the normal distribution, above the mean score of 2.2. This figure was utilized to remove the outlier’s responses to the compassionate self concept scale in the CSBV Survey.
Figure 13. Box Plot of Compassionate Self-Concept Subscale Compared to Team and Individual Sports
After box plots were utilized to remove outliers in the original data set, frequency distributions were run to determine the number of participants included in the sample population according to each demographic. The first column in each of the frequency tables identifies the number of valid cases in that particular category. The frequency column shows the actual number of the participants reported in each demographic, while the percent column indicates the percentage of the particular frequency in that demographic.

Table 4. Team Sport Frequencies for Sample Population

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid .00</td>
<td>63</td>
</tr>
<tr>
<td>1.00</td>
<td>137</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
</tr>
</tbody>
</table>

Table 5. Individual Sport Frequencies for Sample Population

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid .00</td>
<td>135</td>
</tr>
<tr>
<td>1.00</td>
<td>65</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
</tr>
</tbody>
</table>

Of the study participants, 68% participated in team sports, 32% participated in individual sports, 1% of the total participated in both team and individual sports (See Tables 4-5)
Table 6. Complete Frequency Table With All Sports

<table>
<thead>
<tr>
<th>Sport</th>
<th>Frequency</th>
<th>Percent</th>
<th>Total Number of Student-Athletes on Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseball</td>
<td>23</td>
<td>11.5</td>
<td>45</td>
</tr>
<tr>
<td>Men’s Basketball</td>
<td>5</td>
<td>2.5</td>
<td>20</td>
</tr>
<tr>
<td>Football</td>
<td>44</td>
<td>22</td>
<td>133</td>
</tr>
<tr>
<td>Men’s Track/Field/Cross Country</td>
<td>33</td>
<td>16.5</td>
<td>61</td>
</tr>
<tr>
<td>Men’s Golf</td>
<td>9</td>
<td>4.5</td>
<td>11</td>
</tr>
<tr>
<td>Men’s Tennis</td>
<td>4</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Softball</td>
<td>25</td>
<td>12.5</td>
<td>32</td>
</tr>
<tr>
<td>Women’s Basketball</td>
<td>8</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>Soccer</td>
<td>22</td>
<td>11</td>
<td>29</td>
</tr>
<tr>
<td>Women’s Track/Field/Cross Country</td>
<td>15</td>
<td>7.5</td>
<td>45</td>
</tr>
<tr>
<td>Volleyball</td>
<td>10</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td>Women’s Tennis</td>
<td>4</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100</td>
<td>440</td>
</tr>
</tbody>
</table>

Table 6 combines each of the frequency tables for the 12 sports surveyed indicating the percentage of student-athletes in each sport.
Table 7. Gender Frequencies for Sample Population

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>85</td>
<td>42.5</td>
</tr>
<tr>
<td>Male</td>
<td>115</td>
<td>57.5</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Forty-two and one-half percent were females and 57.5% were males (See Table 7).

Table 8. Ethnicity Frequencies for Sample Population

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian/Alaskan Native</td>
<td>6</td>
<td>3.0</td>
</tr>
<tr>
<td>Black, Non-Hispanic</td>
<td>44</td>
<td>22.0</td>
</tr>
<tr>
<td>White, Non-Hispanic</td>
<td>130</td>
<td>65.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8</td>
<td>4.0</td>
</tr>
<tr>
<td>Nonresident Alien</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>other</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td>97.0</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The frequencies of the participants’ ethnicity revealed that 6 were American Indian/Alaskan Native (3%), 44 were Black, Non-Hispanic (22%), 130 were White, Non-Hispanic (65%), 0 were Asian/Pacific Islander (0%), 8 were Hispanic (4%), 1 was Nonresident Alien (.5%), 5 classified themselves as Other (2.5%), and 6 did not indicate their ethnicity (3%) (See Table 8).

Table 9. Academic Classification Frequencies for Sample Population

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>71</td>
<td>35.5</td>
</tr>
<tr>
<td>Sophomore</td>
<td>55</td>
<td>27.5</td>
</tr>
<tr>
<td>Junior</td>
<td>42</td>
<td>21.0</td>
</tr>
<tr>
<td>Senior</td>
<td>32</td>
<td>16.0</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Seventy-one participants reported freshman as their academic classification (35.5%), 55 reported sophomore classification (27.5%), 42 reported junior classification (21%), and 32 reported senior classification (16%) (See Table 9). It is important to note that one contributing factor explaining the low number of senior participants was the fact that the study was conducted in the spring semester. Many senior student-athletes graduate in the fall semester after their final season of competition has been completed.

Table 10. College Department Frequencies for Sample Population

<table>
<thead>
<tr>
<th>Department</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts</td>
<td>11</td>
<td>5.5</td>
</tr>
<tr>
<td>Business Administration</td>
<td>40</td>
<td>20.0</td>
</tr>
<tr>
<td>Education</td>
<td>60</td>
<td>30.0</td>
</tr>
<tr>
<td>Engineering</td>
<td>18</td>
<td>9.0</td>
</tr>
<tr>
<td>General Studies</td>
<td>20</td>
<td>10.0</td>
</tr>
<tr>
<td>Liberal Arts</td>
<td>20</td>
<td>10.0</td>
</tr>
<tr>
<td>Nursing and Allied Health Professions</td>
<td>12</td>
<td>6.0</td>
</tr>
<tr>
<td>Sciences</td>
<td>18</td>
<td>9.0</td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
<td>99.5</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The college department selected by the participants indicating their field of study included 11 participants in the College of Arts (5.5%), 40 participants in the College of Business Administration (20%), 60 participants in the College of Education (30%), 18 participants in the College of Engineering (9%), 0 participants in Graduate School (0%), 20 participants in the College of General Studies (10%), 20 participants in the College of Liberal Arts (10%), 12 participants in the College of Nursing and Allied Health Professions (6%), 18 participants in the College of Sciences (8%), and .5 percent did not report their college department (See Table 10).
Table 11. Residence Classification Frequencies for Sample Population

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>199</td>
<td>99.5</td>
</tr>
<tr>
<td>In-state</td>
<td>119</td>
<td>59.5</td>
</tr>
<tr>
<td>out-of-state</td>
<td>66</td>
<td>33.0</td>
</tr>
<tr>
<td>international</td>
<td>14</td>
<td>7.0</td>
</tr>
<tr>
<td>Missing System</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Of the 200 participants, 119 classified themselves as in-state residents (59.5%), 66 classified themselves as out-of-state residents (33%), and 14 classified themselves as international (7%) (See Table 11).

Descriptive Statistics for Study Instrument

Table 12. Descriptive Statistics for the College Students’ Beliefs and Values Survey

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritual Identification</td>
<td>2.1597</td>
<td>.42254</td>
<td>199</td>
</tr>
<tr>
<td>Spiritual Quest</td>
<td>2.1382</td>
<td>.47060</td>
<td>199</td>
</tr>
<tr>
<td>Equanimity</td>
<td>1.6025</td>
<td>.35222</td>
<td>199</td>
</tr>
<tr>
<td>Religious Commitment</td>
<td>1.8642</td>
<td>.51756</td>
<td>199</td>
</tr>
<tr>
<td>Religious Struggle</td>
<td>2.2774</td>
<td>.42482</td>
<td>199</td>
</tr>
<tr>
<td>Religious Engagement</td>
<td>2.4111</td>
<td>.52616</td>
<td>200</td>
</tr>
<tr>
<td>Religious/Social Conservatism</td>
<td>2.2112</td>
<td>.37424</td>
<td>199</td>
</tr>
<tr>
<td>Religious Skepticism</td>
<td>2.4284</td>
<td>.39496</td>
<td>199</td>
</tr>
<tr>
<td>Charitable Involvement</td>
<td>2.1643</td>
<td>.38587</td>
<td>199</td>
</tr>
<tr>
<td>Ethic of Caring</td>
<td>2.4290</td>
<td>.56624</td>
<td>199</td>
</tr>
<tr>
<td>Ecumenical Worldview</td>
<td>1.9791</td>
<td>.29082</td>
<td>199</td>
</tr>
<tr>
<td>Compassionate Self-Concept</td>
<td>2.1992</td>
<td>.64530</td>
<td>197</td>
</tr>
</tbody>
</table>

The 12 subscales comprising the CSBV survey were evaluated using descriptive statistics to determine the mean and standard deviation for each (See Table 12). Variables indicated as
loading into each subscale in Astin’s 2007 results were not all present in the 2007 College Students’ Beliefs and Values Survey. As a result, only those variables appearing on the CSBV survey were included in determining the descriptive statistics for the sample population as well as Astin’s 2007 results for comparison purposes (See Table 13). Table 12 is an average of all the means taken from the questions used to comprise each of Astin’s 12 scales in the CSBV.

Table 13. Descriptive Statistics Comparing Current Study’s Population and Astin’s 2007 CSBV Survey Results

<table>
<thead>
<tr>
<th>CSBV Subscales</th>
<th>Current Study’s Mean</th>
<th>Current Study’s Standard Deviation</th>
<th>Astin’s 2007 Study Mean</th>
<th>Astin’s 2007 Study Standard Deviation</th>
<th>t value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritual Identification</td>
<td>27.97</td>
<td>10.23</td>
<td>26.3</td>
<td>6.6</td>
<td>2.3</td>
<td>.011*</td>
</tr>
<tr>
<td>Spiritual Quest</td>
<td>19.23</td>
<td>7.15</td>
<td>23.4</td>
<td>4.6</td>
<td>-8.22</td>
<td>1</td>
</tr>
<tr>
<td>Equanimity</td>
<td>8</td>
<td>2.83</td>
<td>11.8</td>
<td>2.1</td>
<td>-18.9</td>
<td>1</td>
</tr>
<tr>
<td>Religious Commitment</td>
<td>22.4</td>
<td>9.07</td>
<td>31.2</td>
<td>10.2</td>
<td>-13.68</td>
<td>1</td>
</tr>
<tr>
<td>Religious Struggle</td>
<td>11.38</td>
<td>3.4</td>
<td>8.3</td>
<td>1.7</td>
<td>12.78</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>Religious engagement</td>
<td>19.3</td>
<td>8.4</td>
<td>17.5</td>
<td>6.8</td>
<td>3</td>
<td>.0014*</td>
</tr>
<tr>
<td>Scale</td>
<td>Mean (Current Study)</td>
<td>SD (Current Study)</td>
<td>Mean (Astin's 2007 Study)</td>
<td>SD (Astin's 2007 Study)</td>
<td>t-test</td>
<td>p-value</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------</td>
<td>--------------------</td>
<td>---------------------------</td>
<td>-------------------------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Religious/Social Conservatism</td>
<td>14.6</td>
<td>4.7</td>
<td>14.2</td>
<td>4.2</td>
<td>1.2</td>
<td>.116</td>
</tr>
<tr>
<td>Religious Skepticism</td>
<td>21.8</td>
<td>8.3</td>
<td>17.8</td>
<td>5.5</td>
<td>6.79</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>Charitable Involvement</td>
<td>10.81</td>
<td>3.38</td>
<td>10</td>
<td>1.4</td>
<td>3.38</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>Ethic of Caring</td>
<td>19.43</td>
<td>6.84</td>
<td>18.6</td>
<td>4.5</td>
<td>1.71</td>
<td>.044*</td>
</tr>
<tr>
<td>Ecumenical Worldview</td>
<td>21.76</td>
<td>7.96</td>
<td>30.5</td>
<td>3.6</td>
<td>-15</td>
<td>1</td>
</tr>
<tr>
<td>Compassionate Self-Concept</td>
<td>8.8</td>
<td>3.44</td>
<td>15</td>
<td>2.5</td>
<td>-25</td>
<td>1</td>
</tr>
</tbody>
</table>

* indicates the current study’s sample population had a statistically significant greater mean than Astin’s 2007 sample

In order to compare the means for each scale in the sample population to Astin’s 2007 survey results, the descriptive statistics were run for each question used in one of the 12 scales. Then, the mean of each question in a particular scale were added together to calculate the mean for each of the 12 scales. Standard deviations were also calculated for each individual scale. The mean and standard deviation were then compared to Astin’s 2007 study in which 14,527 college students were included in the sample population. Using a t-test to evaluate whether or not the current study’s mean for each subscale was statistically significantly greater than Astin’s 2007 mean for each subscale; the means from the 12 subscales obtained from the sample population of
200 student-athletes were compared to the means from Astin’s 2007 study. A p-value equal to or less than .05 indicated the statistical significance of the comparison of the means. The student-athletes surveyed at UL Lafayette had a statistically significant greater mean than Astin’s 2007 results in six of the twelve subscales. Specifically, the student-athlete population’s mean was greater in the spiritual identification, religious struggle, religious engagement, religious skepticism, charitable involvement, and ethic of caring subscales (See Table 13).

**Research Questions**

This study was designed to investigate the following questions: (1) Is there a statistically significant difference between student-athletes participating in individual sports and student-athletes participating in team sports as measured by the College Students’ Beliefs and Values Survey? (2) Is there a statistically significant difference among student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey? (3) Is there a statistically significant difference among student-athletes participating in team sports as measured by the College Students’ Beliefs and Values Survey? In order to explore the relationship between student-athletes and their self-reported levels of spirituality, the College Students’ Beliefs and Values Survey (Astin, 2004) was selected as the measurement instrument. There were three hypotheses and three null hypotheses for this study.

**Research Hypotheses**

**Hypothesis 1:**
Student-athletes participating in team sports will demonstrate statistically significant differences in levels of spirituality as compared to student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey.
Null 1: No statistically significant difference exists in the level of spirituality experienced by student-athletes participating in team sports as compared to student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey.

**Hypothesis 2:**

Statistically significant differences do exist in levels of spirituality experienced by student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey.

Null 2: No statistically significant differences in levels of spirituality exist in student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey.

**Hypothesis 3:**

Statistically significant differences do exist in levels of spirituality experienced by student-athletes participating in team sports as measured by the College Students’ Beliefs and Values Survey.

Null 3: No statistically significant differences in levels of spirituality exist in student-athletes participating in team sports as measured by the College Students’ Beliefs and Values Survey.

**Results of ANOVA**

The independent variable in this study is team and individual sports and the dependent variables in this study are the 12 subscales in the CSBV survey. After reviewing a statistics chart on UCLA’s Academic Technology Services website, adapted from *Choosing the Correct Statistic* by James D. Leeper, one-way ANOVA was selected as the best statistical test for a study containing one independent variable and multiple dependent variables (http://www.ats.ucla.edu/stat/mult_pkg/whatstat/default.htm). Analysis of variance (ANOVA) is used to “compare groups that differ on one independent variable (or factor) with two or more
levels” (Shavelson, 1996, p. 371). Thus, ANOVA was selected as the most logical choice for the statistical test to be used to analyze the data in this study.

Results from the one-way ANOVA indicated that few statistically significant differences existed between team and individual sports’ levels of spirituality reported in each of the 12 subscales (See Table 14). As a result, there was no need to run multiple regression analysis since the differences that existed were minimal. Table 14 identifies the 12 subscales and indicates between group differences and within group differences for each subscale. Between group differences refer to the independent variable which is comprised of team sport athletes and individual sport athletes. Additionally, within group differences refer to differences within each group of the independent variable. Specifically within group differences refer to variation within team sport student-athletes as a whole and within individual sport athletes as a whole across each subscale. Post-hoc tests cannot be run on an ANOVA in the Statistical Package for Social Sciences (SPSS) if there are less than three groups in the independent variable (SPSS Inc., 2009); therefore means were compared by viewing the mean plots for each scale that was statistically significant.

Table 14. One-Way ANOVA Comparing Team and Individual Sports’ Levels of Spirituality to the 12 Subscales in the CSBV Survey

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Compassionate Self-Concept</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1.040</td>
<td>1</td>
<td>1.040</td>
<td>2.517</td>
<td>.114</td>
</tr>
<tr>
<td>Within Groups</td>
<td>80.577</td>
<td>195</td>
<td>.413</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>81.617</td>
<td>196</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ecumenical Worldview</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>.013</td>
<td>1</td>
<td>.013</td>
<td>.151</td>
<td>.698</td>
</tr>
<tr>
<td>Within Groups</td>
<td>16.733</td>
<td>197</td>
<td>.085</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16.746</td>
<td>198</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Between Groups</td>
<td>Within Groups</td>
<td>Total</td>
<td>df</td>
<td>Significance</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------</td>
<td>---------------</td>
<td>--------</td>
<td>-----</td>
<td>--------------</td>
</tr>
<tr>
<td><strong>Ethic of Caring</strong></td>
<td>.917</td>
<td>.318</td>
<td>2.889</td>
<td>.091</td>
<td></td>
</tr>
<tr>
<td><strong>Charitable Involvement</strong></td>
<td>.833</td>
<td>.145</td>
<td>5.727</td>
<td>.018</td>
<td></td>
</tr>
<tr>
<td><strong>Religious Skepticism</strong></td>
<td>.062</td>
<td>.156</td>
<td>.397</td>
<td>.529</td>
<td></td>
</tr>
<tr>
<td><strong>Religious/Social Conservatism</strong></td>
<td>.516</td>
<td>.138</td>
<td>3.735</td>
<td>.055</td>
<td></td>
</tr>
<tr>
<td><strong>Religious Engagement</strong></td>
<td>.515</td>
<td>.276</td>
<td>1.869</td>
<td>.173</td>
<td></td>
</tr>
<tr>
<td><strong>Religious Struggle</strong></td>
<td>.271</td>
<td>.180</td>
<td>1.506</td>
<td>.221</td>
<td></td>
</tr>
<tr>
<td><strong>Religious Commitment</strong></td>
<td>1.029</td>
<td>.264</td>
<td>3.899</td>
<td>.050</td>
<td></td>
</tr>
<tr>
<td><strong>Equanimity</strong></td>
<td>.123</td>
<td>.124</td>
<td>.994</td>
<td>.320</td>
<td></td>
</tr>
<tr>
<td><strong>Spiritual Quest</strong></td>
<td>.080</td>
<td>.222</td>
<td>.362</td>
<td>.548</td>
<td></td>
</tr>
<tr>
<td><strong>Spiritual Identification</strong></td>
<td>.906</td>
<td>.175</td>
<td>5.180</td>
<td>.024</td>
<td></td>
</tr>
</tbody>
</table>
After analyzing the results of the one-way ANOVA, the first null hypothesis for this study was accepted, specifically:

1. No statistically significant difference exists in the level of spirituality experienced by student-athletes participating in team sports as compared to student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey.

Bivariate Correlations Run to Test for Differences between Demographics

Since minimal statistical differences were found between team and individual sports and the 12 CSBV subscales, bivariate correlations were run on the reported demographics to test for differences based on gender, ethnicity, academic classification, college department, and residence classification (Table 15). Pearson’s correlation is a measure of the strength of relationship between two variables. It can take any value from -1 (as one value changes, the other changes in the opposite direction by the same amount), through 0 (as one variable changes the other doesn’t change at all), to +1 (as one variable changes, the other changes in the same direction by the same amount). Field, 2005, pp. 740-741

Table 15 depicts each demographic being compared to one another with the Pearson Correlation indicating the strength of the existing correlation.

After examining the bivariate correlation of the sample demographics, it was determined that differences between gender and ethnicity should be further examined. Differences between gender needed to be further examined from a within group perspective because no differences existed when comparing gender to the other demographics. Ethnicity was selected to be further examined because the bivariate correlation indicated that it was correlated with all other demographics aside from gender. A one-way ANOVA was run to compare gender to the 12 subscales (Table 16). The ANOVA indicated statistically significant differences in five of the 12
Table 15. Bivariate correlations on each demographic

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Ethnicity</th>
<th>Academic Classification</th>
<th>College Department</th>
<th>Residence Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>-.076</td>
<td>.027</td>
<td>-.122</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.291</td>
<td>.706</td>
<td>.085</td>
<td>.093</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>200</td>
<td>194</td>
<td>200</td>
<td>199</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Pearson Correlation</td>
<td>-.076</td>
<td>1</td>
<td>.149(^*)</td>
<td>.163(^*)</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.291</td>
<td>.038</td>
<td>.023</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>194</td>
<td>194</td>
<td>194</td>
<td>193</td>
</tr>
<tr>
<td>Academic Classification</td>
<td>Pearson Correlation</td>
<td>.027</td>
<td>.149(^*)</td>
<td>1</td>
<td>.007</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.706</td>
<td>.038</td>
<td>.918</td>
<td>.379</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>200</td>
<td>194</td>
<td>200</td>
<td>199</td>
</tr>
<tr>
<td>College Department</td>
<td>Pearson Correlation</td>
<td>-.122</td>
<td>.163(^*)</td>
<td>.007</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.085</td>
<td>.023</td>
<td>.918</td>
<td>.795</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>199</td>
<td>193</td>
<td>199</td>
<td>199</td>
</tr>
<tr>
<td>Residence Classification</td>
<td>Pearson Correlation</td>
<td>-.119</td>
<td>.279(^{**})</td>
<td>.063</td>
<td>.019</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.093</td>
<td>.000</td>
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</table>

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

scales. An example of the results of these differences appears in the means plot (Figures 14).

Specifically, females scored higher than males in the subscales of religious skepticism, religious/social conservatism, and religious struggle, while males scored higher than females in the subscales of religious commitment and equanimity. Table 16 depicts the differences between groups and within groups. For this particular comparison, between groups refers to differences between males and females.
Within groups refers to differences within the group of males and the group of females across subscales. Subscales with a significance level of .05 or less indicated a statistically significant difference between each of the 12 subscales across the two levels of gender (males and females).

Table 16. ANOVA comparing Gender to the 12 CSBV subscales

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<td>.085</td>
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Following analysis of the ANOVA run to compare gender to the 12 subscales, means plots were run when a statistically significant difference existed for a particular subscale. Means plots had to be run because post hoc tests could not be run with only two levels of the independent variable. These figures clearly depicted which level of gender reported higher scores as compared to the other level. The numbers on the dependent axis indicate the mean scores for each subscale. Figure 14 is an example of the means plots run for each of the subscales where a statistically significant difference was observed.

Since the majority of the sample population identified their ethnicity as Black or White, a one-way ANOVA was run to further examine the differences between these two ethnicities and the 12 subscales (Table 17). Statistically significant differences were found in seven of the 12 subscales.
Figure 14. Means Plot for Religious Skepticism Subscale

Figure 14 indicates the mean of religious skepticism for females was reported higher than the mean of religious skepticism for males.

Specifically, differences were found between Black and White student-athletes in the subscales of ethic of caring, charitable involvement, religious skepticism, religious/social conservatism, religious engagement, spiritual quest, and spiritual identification. White student-athletes scored a higher mean in the following subscales: ethic of caring, charitable involvement, religious skepticism, religious/social conservatism, spiritual quest, and spiritual identification. Black student-athletes had a greater mean score in the religious engagement subscale.
Table 17 compares the differences between groups (between ethnicities) and within groups (differences within each particular ethnicity) as reported in the ethnicity demographic. Subscales with a .05 or less level of significance were found to be statistically significant. These statistically significant subscales were further examined using means plots (See figure 15).

Following analysis of the ANOVA run to compare Blacks and Whites to the 12 subscales, means plots were run when a statistically significant difference existed for a particular subscale. Means plots had to be run because post hoc tests could not be run with only two levels of the independent variable. These figures clearly depicted which ethnicity reported higher scores as compared to the other level. The numbers on the dependent axis indicate the mean scores for each subscale. Figure 15 is an example of the means plots run for each of the subscales where a statistically significant difference was detected.

After analyzing the results of the bivariate correlation and one-way ANOVAS for gender and ethnicity, the second and third hypotheses were accepted, specifically:

2. Statistically significant differences do exist in levels of spirituality experienced by student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey.

3. Statistically significant differences do exist in levels of spirituality experienced by student-athletes participating in team sports as measured by the College Students’ Beliefs and Values Survey.

Summary

The goal of this study was to examine whether or not differences existed between team and individual sport student-athletes and their self-reported levels of spirituality as determined by the CSBV survey.
Table 17. ANOVA for Ethnicity

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Figure 15. Means Plot for Ethic of Caring Compared to Black and White Ethnicities

Figure 15 indicates the mean of ethic of caring for Whites was reported higher than the mean of ethic of caring for Blacks.

Additionally, an aim of this study was to investigate if differences existed between team sport student-athletes’ self-reported levels of spirituality and if differences existed between individual sport student-athletes’ self-reported levels of spirituality. One-way ANOVA indicated that few statistical differences existed between team and individual sport student-athletes and their self-reported levels of spirituality in each of the 12 subscales in the CSBV survey. As a result, there was no longer a need to run multiple regression analysis. Bivariate correlations were also run to test for within-group differences. These results were analyzed in this chapter and indicated an acceptance of the second and third hypotheses and a rejection of null hypotheses two and three.
Discussion of the findings, limitations of this study, and implications for higher education administrators and future researchers will be included in Chapter Five.
CHAPTER 5
SUMMARY AND CONCLUSIONS

This chapter recapitulates an exploration of the relationship between individual and team sport student-athletes and their self-reported levels of spirituality as determined by the College Student’s Beliefs and Values Survey (Astin, 2004). This chapter has five respective parts. The first section presents a discussion of results collected in this study starting with a restatement of the research hypotheses and an examination of the results for each. The second section outlines limitations related to this particular study. The third section delineates implications of this study for higher education administrators and future researchers. The fourth section contains recommendations for practice and future research, and the final section provides overall conclusions resulting from this study.

Discussion

Spirituality was defined by Astin (2004) as having “to do with the values that we hold most dear, our sense of who we are and where we come from, our beliefs about why we are here – the meaning and purpose that we see in our work and our life – and our sense of connectedness to each other and to the world around us” (p. 34). Growing attention to spirituality has been linked to higher education as a result of various influences including the value of learning as opposed to teaching, the establishment of learning communities in freshmen seminar courses which are designed to encourage students to search for deeper meaning and purpose, and service learning initiatives where students are provided with opportunities to experience connectedness and personal reflection (Astin, 2004; Bryant et al., 2003; Love & Talbot, 1999). It is believed that the promotion of spiritual development on college campuses may enable students and faculty to connect on deeper levels, discover meaning and purpose in life, and overcome disconnect that currently exists in today’s higher education institutions (Astin, 2004).
Spirituality has also been linked to benefits associated with holistic education (Allen & Kellom, 2001; Clark, 1990; Murphy, 2005; Noddings, 1995) and positive effects on health and healing (Dienstbier & Zillig, 2005; Larson & Larson, 2003; Udermann, 2000).

Research among college students indicates spirituality increases as time in college increases and spiritual development is related to specific types of college involvement (Bryant et al., 2003). As a result, the purpose of this study was to examine the relationship between individual and team sport student-athletes and their self-reported levels of spirituality as determined by the College Student’s Beliefs and Values Survey. One-way ANOVA was used to analyze data gathered from 200 student-athlete participants at the University of Louisiana at Lafayette. The instrument used for the study was the College Students’ Beliefs and Values Survey. This instrument measures a students’ self-reported level of spirituality according to the twelve subscales. It is important to clarify that the religious subscales on Astin’s CSBV survey are evaluated in relationship to spirituality.

One interesting comparison to be made is that the sample population of student-athletes at UL Lafayette had a statistically significant greater mean than Astin’s 2007 results in six of the twelve subscales on the CSBV survey. Specifically, the student-athlete population’s mean was greater in the spiritual identification, religious struggle, religious engagement, religious skepticism, charitable involvement, and ethic of caring subscales. The mean scores for student-athletes in the sample population were higher than half of the subscale mean scores reported by Astin’s 2007 sample population which surveyed 14, 527 college students. This finding impacted the first hypothesis which stated, Student-athletes participating in team sports will demonstrate statistically significant differences in levels of spirituality as compared to student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey. With student-athletes scoring higher mean scores in six of the twelve subscales as
compared to Astin’s (2007) population of college students, this means that student-athletes in the sample population had higher levels of spirituality to begin with compared to the general student body surveyed by Astin (2007), thus potentially limiting the possibility for differences to arise between individual and team sport student-athletes’ self-reported levels of spirituality.

Another interesting comparison to be made is that significant differences were observed between student-athletes’ self-reported levels of spirituality and their gender and ethnicity. Bivariate correlations were run to further examine these differences. In the sample population, 42.5% of participants were females and 57.5% were males. Females scored higher than males in the subscales of religious skepticism, religious/social conservatism, and religious struggle, while males scored higher than females in the subscales of religious commitment and equanimity. Again, it is important to note that the religious subscales are measured and evaluated according to their relationship with spirituality.

It is important to clarify what each of these scales measures in terms of spirituality. Religious skepticism refers to an individual’s belief that science can explain everything and that the universe was created by chance. Religious/social conservatism indicates an individual’s likelihood to oppose things such as casual sex and abortion, to believe that praying leads to forgiveness, and to believe that those who don’t believe in God will be punished. Religious struggle reflects the extent to which an individual questions his/her religious beliefs and may feel unsettled in regard to religious matters.

Females scoring higher than males in these three scales supports literature that indicates marginalized and oppressed populations often use spirituality as a coping mechanism in an attempt to achieve justice in an unjust world (Cone, 1997; Townes, 1995). Males scoring higher than females in the religious commitment scale are not supported by the previously cited literature, as this scale seeks to measure the degree to which an individual follows religious
teachings in everyday life and increases personal strength by trusting in a higher power. However, these findings may be connected to Astin’s (2004) previously cited research that indicates experiencing connectedness and personal reflection during service learning initiatives, which are similar to experiences received in team sports, increases one’s spirituality. Equanimity measures the extent to which a student feels at peace and centered, and feels positive about the direction of his/her life. This finding is supported by the fact that females did score higher in the religious struggle subscale.

In further examining differences between ethnic groups, the majority of the sample population indicated either Black (22%) or White (65%) as their ethnicity. White student-athletes scored a higher mean as compared to Black student-athletes in the following subscales: ethic of caring, charitable involvement, religious/social conservatism, spiritual quest, and spiritual identification. Black student-athletes had a greater mean score than White student-athletes in the religious engagement subscale. It is also important to clarify the differences between these subscales to examine the potential causes for these findings.

The ethic of caring subscale was used to measure an individual’s commitment to values such as helping others in difficulty and making the world a better place. The charitable involvement subscale measured activities such as community service involvement and making donations to charity. Religious/Social conservatism as previously mentioned, measured an individual’s likelihood to oppose things such as casual sex and abortion, to believe that praying leads to forgiveness, and to believe that those who don’t believe in God will be punished. The spiritual quest subscale was used to measure an individual’s interest in searching for one’s meaning and purpose in life. Spiritual identification was a measurement reflecting one’s belief in the sacredness of life and likelihood to seek personal opportunities for spiritual growth.
The rationale for Whites in the sample population scoring higher than Blacks in the above mentioned scales could be based on a number of factors that vary by ethnicity including: values, behaviors, attitudes, generation, ethnic experience, socioeconomic status, acculturation, enculturation, age, gender, religion, region, sexual orientation, appearance, and history of discrimination (Schoen, 2005). The compilation of these factors shape an individual’s image and how one views life (Schoen, 2005). Possible causes for these higher mean scores may result from the area of the country in which this survey was administered. The American South is often noted for having higher levels of religiosity as compared to other regions in the United States (Reed, 1972). Blacks did score higher than Whites in the religious engagement subscale which measured behaviors such as attending religious services, praying, and reading sacred texts.

The above mentioned findings in statistically significant differences within group as identified by gender and ethnicity indicate an acceptance of hypothesis two and three. Specifically, statistically significant differences do exist in levels of spirituality experienced by student-athletes participating in individual sports as measured by the College Students’ Beliefs and Values Survey. Also, statistically significant differences do exist in levels of spirituality experienced by student-athletes participating in team sports as measured by the College Students’ Beliefs and Values Survey.

Limitations

Limitations for this study included possible threats to both the underlying assumptions of ANOVA and external validity. In regard to the underlying assumptions of ANOVA: (1) independence, (2) normality, and (3) homogeneity of variances (Shavelson, 1996) must be met. In this study, independence and normality were met, but homogeneity of variances may have been a violation. Homogeneity of variance assumes the variance within each population is equal (Shavelson, 1996). In this study, however, the populations included in the two groups within the
independent variable, student-athletes, were not equal. Results from this study could not have been changed, because this threat could not have been eliminated. Of all sixteen sports sponsored at UL Lafayette, nine fell into the individual sport category and seven sports met the NCAA definition for team sports. The population for the team sports sponsored at UL Lafayette significantly out-numbers the individual sport participants. As a result, homogeneity of variance could not be met with this particular sample population.

In addition to describing the homogeneity of the student-athletes, one must understand team cultures that exist and are unique to each individual team. For example, the baseball team at UL Lafayette has been coached by Tony Robichaux for many years. Coach Robichaux is known for having high expectations for his student-athletes and explicitly outlines his expectations in what he refers to as “Robe’s Rules.” Every member of his baseball team is required to follow these rules is fully aware of the consequences associated with each rule. Coach Robichaux’s philosophy for preparing his athletes to become better men prior to becoming better athletes is not a philosophy that is shared by every head coach. The differences in head coaches’ philosophies for each team, which leads to building different character among student-athletes also creates obstacles in meeting homogeneity of variance with this sample population.

Internal validity for this study was very high, but threats to external validity did exist. External validity refers to the generalizeability of results from the sample population to the general population (Shavelson, 1996). This study may not be generalizeable to the entire population of collegiate student-athletes, as the sample for this study was taken from only one institution in one geographical location. Results could change if a larger sample population was taken from various institutions in different regions of the country.
Limitations to this study also included the conditions in which the instrument was administered to the sample population. The auditorium in which the student-athletes completed the survey was not air-conditioned and this survey was given during the hot month of April in South Louisiana. The completion time for the CSBV survey averaged between 30 and 40 minutes. This was also a limitation in assuring focus on the part of the student-athletes for such a lengthy period. In Astin’s 2007 survey collection, college students were monetarily rewarded for their participation in the study. The NCAA prohibits student-athletes from receiving any extra benefits that are not available to the general student population, so not awarding monetary rewards may have skewed the participation rates.

Finally, if this study were to be conducted again, I would administer the survey to teams individually rather than to all sports simultaneously. In previous meetings, I have observed that student-athletes tend to be more focused and attentive when they are in the presence of the peers in their respective team or individual sport. This attentiveness was partially lost in the unique auditorium setting where student-athletes were in an unfamiliar environment. Finally, student-athletes have an ingrained belief system in which certain protocol takes place. Rules exist in every setting, including what can and cannot be said in regard to one’s athletic experience. If the student-athletes perceived the CSBV survey as official, they may have been cautious, rather than forthcoming, with their responses.

Implications

Although limited statistically significant relationships were found in this study, implications do exist for higher education administrators and future researchers. It is important that higher education administrators recognize their critical role in incorporating opportunities for students to assess values and set goals at the onset of their collegiate careers. The results from this study did indicate that student-athletes, as a sub-population of the general student body, do
report higher levels of mean spirituality scores as compared to college students surveyed in Astin’s 2007 study. One might conclude this sub-population is apt to continue to seek opportunities while in college to develop spiritually, or to discover one’s meaning and purpose in life.

At this time, UCLA’s Higher Education Research Institute is one of the leaders in studying spiritual development. Astin’s (2004) CSBV survey is highly recognized for its reliability and validity in measuring levels of spirituality. However, it important that future researchers find an instrument capable of evaluating spiritual development of student-athletes in a psychometrically sound manner or revise the CSBV survey to do so. External validity could also be improved by increasing the sample size and number of institutions included in the study. A variety of geographical locations would have likely added variance to the responses, as one’s spirituality is part of a development cycle than begins far before collegiate enrollment. Student-athletes are a unique population with different socialization structures. They have been trained over a lifetime on their commitment to values. Particularly, sacrifice is a key element learned by all student-athletes. Often times, sacrifice translates into spirituality because student-athletes must remain committed to their goals in order to successfully accomplish their purpose in life. These are all unique traits surrounding student-athletes as a sub-population that cannot be considered a homogeneous population. Future researchers must take these traits into account prior to selecting a measurement instrument designed to measure this population’s spirituality.

Additionally, I encourage universities to promote opportunities for student-athletes to develop spiritually while in college. Specifically, I believe student-athletes are often classified as a unique population which is often criticized for receiving too many support services, but is often exploited for the betterment of the university at the same time. Student-athletes, like all students, undergo extreme searches for identity development which plays a role in the individual’s search
for authenticity (Gohn & Albin, 2006). Authenticity refers to a non-fragmented lifestyle where a person lives and acts according to the same values and beliefs in all situations and environments (Chickering et al., 2006). This study indicates student-athletes are developing spiritually in college. Thus, higher education administrators have a responsibility to aid student-athletes in this developmental process.

Recommendations for Practice

Future recommendations for practice include higher education administrators, specifically student affairs administrators, take an active role responding to students’ quests for meaning and purpose in life. Specifically, student affairs administrators need to become more aware of specific sub-populations’ developmental needs. Student-athletes are only a single example of a sub-population of college students whose spiritual development takes place differently than other sub-populations of students. The spiritual development process of student-athletes needs to continue to be explored so that higher education administrators can provide adequate support services to aid in these students’ spiritual developmental processes.

In order to fully understand the implications of the results of this study, the mean score for each subscale must be analyzed in terms of how the score impacts the need for spiritual developmental practices to be incorporated into the daily practices of higher education administrators. The mean score for all participants in the study, both student-athletes participating in team and individual sports, were used to analyze each subscale. Comparisons between the current study and Astin’s 2007 study of college students nationwide were also made.

The first subscale, spiritual identification, measures the degree to which a student believes in life’s sacredness, tries to find opportunities to develop spiritually, and believes that all people are spiritual beings. The current study yielded a mean score of 27.97 as compared to Astin’s (2007) mean score of 26.3. The differences in these mean scores were statistically
significant. For freshmen students, this scale predicts how frequently they engaged in “other readings on religion/spirituality” after being in college for three years (Astin, Astin, & Lindholm, n.d.). This study’s mean score indicates student-athletes are seeking opportunities to develop spiritually in college and will likely seek opportunities to read about other religions and spirituality. Thus, higher education administrators need to provide student-athletes with opportunities to develop their spiritual identification.

The spiritual quest subscale assesses one’s interest in searching for meaning and purpose in life. Freshman scores for this scale predict the chance that students will enroll in a religious studies course while in college and write or journal reflectively (Astin et al., n.d.). In the current study, student-athletes scored a mean score of 19.23 as compared to Astin’s (2007) mean score of 23.4. This finding was not statistically significant. Perhaps the university in which this study took place does not offer enough religious studies courses or provide opportunities to students to write and journal reflectively. I recommend higher education administrators provide ample opportunities for student-athletes to participate in service learning initiatives where reflective writing takes place. Increasing opportunities for service learning initiatives fosters connectedness and personal reflection, proven to increase spiritual development (Astin, 2004).

Capehart-Meningall (2005) makes recommendations that value clarification and goal setting opportunities need to be provided to students in initial orientation programs. Educators and administrators should also focus on creating safe environments where reflective analysis prevails. Creating learning environments or communities with this type of environment is an example to accomplish this recommendation.

Equanimity measures the level at which a student feels at peace or centered in life. It also indicates a student’s ability to find meaning during difficult times and the likelihood that a student feels positive about his or her life’s direction. This subscale predicts the chance that a
student will engage in meditation or reflection during college (Astin et al., n.d.). Student-athletes in the current study scored a mean score of 8 in this subscale, compared to Astin’s (2007) mean score of 11.8. Again, this finding was not statistically significant, but the lesser mean score in the current study indicates student-athletes in this study are not as positive about their life’s direction compared to college students nationwide and may not be able to find meaning when faced with hardships. Students, particularly student-athletes, need opportunities to develop their time management skills, ability to maintain healthy relationships, and knowledge to live healthy lifestyles in order to live a balanced lifestyle (Capehart-Meningall, 2005). Living a balanced lifestyle may aid students in finding peace and meaning in life. It is also important to note that equanimity may not be the best assessment for college students because being young may lead to a sense of arrogance that can lead to an individual not fully questioning one’s equanimity. This subscale would likely be more effective in measuring an adult later in life.

The Religious commitment subscale measures the degree to which a student commits to following religious teachings on a daily basis and believes in a higher power. This subscale can be measured with a great deal of precision as its alpha was .97 in Astin’s 2007 study. It predicts the likelihood that a student will pray and enter religious discussions with other students and faculty (Astin et al., n.d.). The current study indicated student-athletes reported a mean score of 22.4 compared to Astin’s (2007) mean score of 31.2. Although this finding was not statistically significant, the difference in mean scores indicates student-athletes at UL Lafayette are not engaging in prayer or having religious discussions on the same scale as college students nationwide. It is recommended that universities provide higher education administrators with proper training needed to be able to engage in religious or spiritual discussions without violating students’ rights. These discussions should be philosophical in nature and faculty should never impose personal religious or spiritual beliefs on their students. Perhaps the fears associated with
discussing religion are preventing faculty and administrators from entering into authentic relationships with students, and training for faculty would help them to feel empowered. If faculty still feel reluctant or ill-equipped to engage in authentic discussions and relationships with students, I recommend faculty be trained to direct students to on-campus resources where these discussions can take place in a more controlled environment. It is important for higher education administrators to model authenticity in their own search for meaning in life (Chickering et al., 2006; Rogers & Love, 2007). When faculty and administrators are open and honest, students are more likely to develop authentic identities as well (Rogers & Love, 2007). Creating an environment in which students, faculty, and administrators are all able to search one’s meaning and purpose in life requires this openness and acceptance of spiritual development to circulate from the top of the university’s administration down.

Religious engagement measures the behaviors often associated with the beliefs in religious commitment. For example, the religious engagement subscale measures behaviors such as going to religious services, praying, and reading religious or sacred texts. This scale predicts the chance that a student will join a religious organization after enrolling in college, take a religious studies course, or participate in a mission trip (Astin et al., n.d.). The student-athletes in the current study scored a statistically significant higher mean than Astin’s (2007) study with a 19.3 compared to 17.5. This finding is interesting as the current study indicates student-athletes are demonstrating religious engagement behaviors without having a firm belief system in place. The recommendation is for higher education administrators to focus on assisting student-athletes in developing authentic relationships in order to compensate for this disconnect between religious beliefs and behaviors. Again, higher education administrators need to receive proper training from their universities to avoid infringing upon students’ first amendment rights when encouraging students to develop authentic relationships. If faculty do not feel qualified after
receiving training, they should encourage students to utilize other resources on campus to develop their individual belief system.

The religious/social conservatism subscale measures the student’s belief that prayer leads to receiving forgiveness and that those who do not believe in God will be punished. This subscale also measures the degree to which a student opposes casual sex. The religious/social conservatism subscale predicts the likelihood that students will read sacred texts and avoid drinking alcohol while in college (Astin et al., n.d.). Student-athletes in the current study scored a slightly higher mean (14.6) than Astin’s (2007) study (14.2), but this finding was not statistically significant. The predictive value of this subscale is unique in that it predicts the likelihood of students avoiding negative behaviors such as alcohol abuse. Due to the dangers associated with promoting any type of religious belief in the setting of a public institution, I recommend that higher education administrators focus on promoting healthy behaviors instead. Perhaps a more appropriate way to produce the positive results associated with this subscale in a higher education setting is to tie healthy behaviors to one’s individual search for meaning. For example, administrators could provide students with programs geared toward practicing safe sex and recognizing signs of alcohol abuse in friends and oneself. Religious skepticism measures a student’s belief system that relates to science explaining everything. Students with high scores in this subscale tend to believe that the universe arose by chance and do not believe in life after death. The religious skepticism subscale predicts the likelihood that a student will select “none” as their religious preference after being enrolled in college for three years and will not engage in religious singing or chanting while in college (Astin et al., n.d.). Student-athletes in the current study reported a mean score of 21.8, which was statistically significantly greater than Astin’s (2007) mean score of 17.8. This means that student-athletes are more skeptical about religion as compared to the general student body originally surveyed by Astin (2007) and will likely not
have a religious preference when they graduate. I recommend that higher education administrators focus on providing student-athletes with opportunities to develop spiritually, as opposed to religiously, and assist them in developing meaning and purpose in life. It appears as though religious teachings may be a turn off for student-athletes; thus, spiritual development should be the aim of higher education administrators for this sub-population of college students.

The religious struggle subscale measures the degree to which a student feels unsettled with religious issues, feels separated from God, and may question his/her religious beliefs. This score is negatively related to a student’s psychological well-being during his/her freshman year and is positively related to the chance that a student will participate in self-reflection while in college (Astin et al., n.d.). Student-athletes in the current study scored a statistically significant higher mean (11.38) than Astin’s (2007) study (8.3). This finding indicates that student-athletes in the current study are hungry for self-reflection opportunities and need these opportunities to overcome their religious struggles. Student-athletes need opportunities to grapple with feelings of unsettledness related to religiousness and will likely do this through self-reflection. Higher education administrators should be willing to aid students in establishing balance in their lives. Achieving the goal of educating the whole student is not accomplished when spiritual development practices are ignored (Love & Talbot, 1999).

The charitable involvement subscale measures a student’s behavioral practices related to participation in community service projects, making charitable donations, and assisting friends with personal problems. This subscale predicts the likelihood that a student will participate in a service learning project or leadership training while in college (Astin et al., n.d.). Student-athletes in the current study reported a statistically significant higher mean score (10.81) than Astin’s (2007) study (10). This finding indicates that student-athletes are more apt to participate in community service projects than the general student body, or perhaps opportunities in this area
are more abundant for student-athletes. Regardless, administrators need to continue to foster charitable involvement behaviors in student-athletes by providing them with opportunities to serve the community.

Compassionate self-concept measures a student’s self-rating of his/her compassion, kindness, generosity, and forgiveness. Scores in this subscale predict the likelihood that a student will help friends with personal problems or engage in volunteer work (Astin et al., n.d.). While these categories are similar to the ones measured by the charitable involvement subscale, these categories are simply what is predicted by the compassionate self-concept subscale. Student-athletes in the current study reported a mean score of 8.8 compared to Astin’s (2007) study with a mean score of 15. This finding contradicts the student-athletes’ statistically significant greater mean in the charitable involvement subscale which indicated student-athletes in the current study are more likely to participate in community service projects and serve their community compared to the general student population in Astin’s (2007) study. Perhaps the student-athletes in the current study participate in community service projects because they are required to do so, rather than serving with a sense of compassion or kindness. Or, student-athletes in the current study may not believe that their participation in community service projects holds value associated with compassion and kindness. I recommend administrators follow up with student-athletes after engaging in community service projects to add a self-reflection component where student-athletes will be able to discover the connection between the good they are doing for the community as well as the good they are doing for themselves.

Ethic of caring measures a student’s commitment to values such as helping others in need, reducing suffering in the world, and attempting to make the world a better place for all to live. Scores in this subscale predict the number of hours each week a student will spend engaging in volunteer work, charitable donations, and participating in a service learning course (Astin et
al., n.d.). In the current study, student-athletes scored a statistically significant greater mean (19.43) compared to Astin’s (2007) study (18.6). Again, this finding indicates student-athletes are more likely to participate in community service projects and service learning courses, so administrators need to continue to provide student-athletes with these opportunities.

The ecumenical worldview subscale measures a student’s interest in other religions, their openness to understanding other cultures, the connection one feels to all humanity, and the belief that love is the root of all religions. This subscale predicts the likelihood that a student will socialize with students of other ethnicities, study abroad, and participate in religious discussions with students and faculty (Astin et al., n.d.). Student-athletes in the current study scored a mean of 21.76 compared to Astin’s (2007) study mean score of 30.5. This finding was not statistically significant, but it does imply that student-athletes in the current study need greater opportunities to socialize with students of other cultures/ethnicities and/or opportunities to understand religious and cultural differences. As a higher education administrator, I have observed this university’s attempts to integrate awareness for worldwide cultures and religions. I believe that it is difficult to encourage all students to attend programming events which focus on international diversity. However, I recommend administrators who are responsible for leading particular sub-groups, such as student-athletes, make a stronger commitment to encouraging students in their area to participate in cultural/religious diversity programming opportunities. Promoting an ecumenical worldview among student-athletes will likely aid this sub-population in their spiritual development process because they will become more aware of other religions and cultures, making them more accepting of others’ differences and more knowledgeable about other belief systems. Having knowledge of other religions and beliefs will assist the student in choosing an individual purpose that is most fitting for that particular individual.
While the above recommendations have been made as a result of the current study of student-athletes to encourage higher education administrators to promote opportunities for spiritual development, these recommendations can benefit overall student development as well. As previously mentioned, student-athletes are a single sub-population of college students. The implications for higher education administrators promoting spiritual development for all students would associate the previously noted benefits of spiritual development with all students in a higher education setting. Student development must take place holistically, including spiritual development, for all college students to ensure a complete collegiate experience. “College is a critical time when students search for meaning in life and examine their spiritual beliefs and values” (Capeheart-Meningall, 2005, p. 31). Thus, spiritual development plays a key role in holistic learning, and can benefit overall student development.

Recommendations for Research

In 2003, the Higher Education Research Institute (HERI) at UCLA began a longitudinal program of research designed to explore the spiritual development of college students while enrolled in undergraduate coursework (Astin & Astin, 2004c). The goal of this study, funded by the John Templeton Foundation, was to enhance understanding of how college students interpret spirituality, the impact spirituality has on college students’ lives, and how universities and administrators can aid in facilitating college students’ spiritual development (Astin & Astin, 2004). After a pilot CSBV survey was conducted in 2003, a revised survey was administered in 2004. Data collected from the 2003 and 2004 surveys indicated students were reporting high levels of spirituality (Bryant & Schwartz, n.d.). These findings led to the creation of a National Institute on Spirituality in Higher Education that was held at UCLA in 2006. The Institute was a place to reveal findings from the 2004 CSBV survey and to gather input from ten institutions that sought to find creative means to stimulate the development of curricula and co-curricula aimed at
addressing spirituality (Bryant & Schwartz, n.d.). The institute concluded with attendees attempting to develop plans to create new policies and programs to support initiatives on their campuses designed to integrate spirituality into the lives of college students (Bryant & Schwartz, n.d.). The Higher Education Research Institute has continued to further its longitudinal study examining spiritual development of college students and recently began to solicit proposals for researchers conducting original research examining students’ spiritual development in higher education in 2009.

While UCLA’s Higher Education Research Institute is the primary leader in conducting longitudinal research on spiritual development, other researchers have made significant contributions to the field as well. Specifically, Love and Talbot (1999) recognized the absence of spiritual development inquiries in higher education and sought to define spiritual development. After concluding their study, Love and Talbot (1999) called for further studies to be conducted, examining students’ spiritual development. The following questions were posed by Love and Talbot (1999) for future researchers:

1) What is the relationship between spiritual development and the role of spirituality in development? 2) What are the processes of spiritual development? 3) Can spirituality be intentionally developed? 4) How is spiritual development similar or distinct from faith development, cognitive development, moral development, or psychosocial development? How do these interact? 5) Can a student reach a higher level of cognitive, moral or psychosocial development without having developed somewhat spiritually?

Love and Talbot (1999) also recognized that nontraditional approaches to studying spiritual development of student-athletes are warranted, specifically qualitative research was recommended.

In order to effectively answer the major questions surrounding the topic of student-athletes and their spiritual development, qualitative research is needed. Qualitative research is
better equipped to go into depth with a particular topic as compared to quantitative research which is typically designed to limit responses to standardized questions in particular categories (Patton, 2002). The following is a proposed design for a follow up qualitative research design for the current study.

Descriptive Design

Qualitative sampling will be conducted in an individual case study approach. According to Johnson and Christensen (2008), case study research is “research that provides a detailed account and analysis of one or more cases” (p. 406). In order to meet the sampling goal of qualitative research, the researcher will “locate information-rich individuals or cases” as identified in the current quantitative study. In particular, extreme-case sampling will be conducted, in which the teams with the highest and lowest mean scores in the spirituality and spiritually-related related qualities subscales measured by the College Students’ Beliefs and Values Survey will be interviewed in an attempt to discover the essence in which they experienced spiritual development. These scales include spiritual identification, spiritual quest, equanimity, charitable involvement, compassionate self-concept, ethic of caring, and ecumenical worldview.

Setting

Qualitative data collection consisting of interviewing individual student-athletes will involve the researcher meeting with the teams scoring the highest and lowest mean scores in the spirituality and spiritually-related subscales. Interviews will take place at UL Lafayette, the university selected for the current quantitative study. The researcher plans to interview student-athletes in the athletic complex where student-athletes are more likely to feel comfortable.

Variables
Variables in this study include connectedness, personal reflection, and level of spirituality. Conceptually, connectedness will be defined as the feeling of belonging student-athletes share with those who interact with them most frequently as well as with the institution and community. Conceptually, personal reflection will be defined as spending time contemplating one’s purpose or meaning of life. Conceptually, level of spirituality will be defined as one’s search for meaning and purpose in life. During the qualitative data collection interview process, the researcher hopes to inductively determine common variables that impacted the student-athletes’ spiritual development. The researcher will seek to have student-athletes elaborate on their experience with connectedness and personal reflection, but will also look for other themes to emerge that may have impacted their spiritual development as well.

Data Collection

The researcher will administer an open-ended interview to student-athletes using the interview guide approach to gather in-depth information about the student-athletes’ experiences in spiritual development. The interview guide approach requires the researcher to have topics and issues outlined in advance, but during the interview, the researcher decides how to word the questions. The strength of this interview is that “the outline increases the comprehensiveness of the data and makes data collection somewhat systematic for each respondent” (Johnson & Christenson, 2008, p. 205). The researcher may also keep the interview conversational, which is a format student-athletes are used to dealing with. The disadvantage to this approach is that the researcher may word questions differently for different student-athletes, thus receiving different responses.

During the open-ended interview conducted using the interview guide approach, the researcher will ask student-athletes to rate their level of connectedness with friends, teammates, teachers, family, and the community. They will then be asked to describe an experience in
which greater connectedness was felt. The researcher will do the same with personal reflection. Student-athletes will be asked to identify ways in which they practice reflection. They will then be asked to identify the frequency in which they engage in reflective practices. Finally, student-athletes will be asked to describe their spiritual journey since the beginning of their freshman year. If at any time the student-athlete is stumped on a question or not elaborating, the researcher will use probes such as, “Tell me more about that” (Johnson & Christensen, 2008, p. 208). The researcher anticipates the interview will last approximately 30 minutes to one hour.

Data Analysis

The qualitative research question being asked is (1) How did those student-athletes exhibiting extreme positive or negative levels of spirituality differ in regard to levels of connectedness, personal reflection, and their spiritual journeys upon collegiate enrollment? After transcribing the data collected in the open-ended interviews, the researcher will categorize responses related to the variables connectedness and personal reflection. A network diagram will be constructed to show the relationship between these variables for both the low level spirituality student-athletes and the high level spirituality student-athletes. This diagram will reflect the relationship between these two independent variables and the dependent variable, level of spirituality. The researcher will then be able to observe the differences between both groups of extreme cases as determined in the quantitative design.

Essentially, longitudinal studies, similar to those being conducted by Astin and UCLA’s Higher Education Research Institution (HERI), need to be conducted with sub-populations of college students. Student-athletes are one such population that needs to be explored further. The effect of spiritual development as a result of participation in competitive sports does not begin in college. It begins when a child first participates in competitive sports. Beginning these longitudinal studies of athletes at an early age, and following this sub-population through
college, would yield more thorough results and a better understanding of the process of spiritual development for student-athletes. I believe a mixed-methods study would need to be conducted, adding a qualitative research component to further understand each student-athlete’s spiritual development process.

Future research in the field of student-athlete’s spiritual development has many opportunities to expand as this field of research has been virtually untouched. Specifically, student-athletes from around the country at various institutions need to be studied. In 1999, Love and Talbot reported only one short essay dealing with spiritual development appeared in any of the leading student affairs journals in the past 15 years. Spirituality as a healthy coping strategy in regard to student-athletes’ well-being is one specific area open for further examination. Udermann (2000) alludes to the power of spirituality and the role of athletic trainers assisting student-athletes in the healing process. Further examination of a holistic approach to education and healthcare is also warranted when exploring the spiritual development of student-athletes.

Additionally, research needs to be conducted to determine whether a correlation exists between spiritual development and academic success. Coaches and student-athlete academic counselors would benefit from knowing if a positive correlation exists between a student-athlete’s spirituality and their academic success. In the context of holistic education, academic counselors could be better trained to provide student-athletes with available resources to ensure that the student-athletes do not allow suffering or setbacks in one area of their lives to negatively impact their academic success. Similarly, does a correlation exist between student-athlete’s spirituality and athletic success? Again, this information would be highly utilized by coaches whose primary goal is winning. I am not suggesting that coaches be allowed to manipulate a student-athlete’s spiritual development to further the athletic success of his/her team. Rather, I am stating from an administrative point of view, that gaining coaches’ buy-in to programs
outside of athletics is difficult. If coaches knew that programs designed to provide student-athletes with a holistic educational experience had value associated with athletics, they would be more likely to support student-athletes attendance at speakers or programs designed with this holistic approach to education.

Furthermore, future researchers need to determine the relationship between spirituality and retention and spirituality and graduation. Universities have great pressure to constantly increase these two categories. If spirituality has a positive correlation with retention and graduation, this finding would further support a need for higher education administrators to promote spiritual development during college.

Conclusions

Student affairs researchers have recently begun to focus on the roles of religion and faith as legitimate areas for analysis (Love & Talbot, 1999; Love, 2001; Chickering et al., 2006). With calls from UCLA’s Higher Education Research Institute and Chickering et al. (2006) to research trends in contemporary college students’ spiritual development processes, the time was ripe to examine the self-reported levels of spirituality of student-athletes. While results of this study were not statistically significant in regard to finding differences between groups of student-athletes participating in team and individual sports, findings indicating student-athletes are developing spiritually in college were significant.

Student-athletes in the current study reported higher mean scores in half of the subscales measured by the CSBV survey as compared to Astin’s (2007) original sample population of college students nationwide. This particular finding is critical to this study, in that it solidifies the fact that student-athletes are developing spiritually and reporting higher mean scores than the average student body. Implications resulting from this finding include a need for higher education administrators to provide opportunities for spiritual development to collegiate student-
athletes and to monitor this developmental process throughout student-athletes’ collegiate careers.

Statistically significant differences identified in bivariate correlations run between gender and ethnicity of this sample population also indicated different developmental styles for males and females and Blacks and Whites. Sub-populations of college students typically come from different backgrounds, resulting from a variety of factors including gender and ethnicity, and these previous experiences are going to influence an individual’s spiritual development process. This study indicated that females scored higher in areas related to religious skepticism, religious/social conservatism, and religious struggle, while males scored higher than females in religious commitment and equanimity. These findings indicated differences from Buchcko’s (2004) study which found “women’s religious faiths appear to reflect greater daily connection with God through prayer, more assurance of God’s presence and activity in their lives, and more emotive connection with God as evidenced by more frequent findings of reverence or devotion” (p. 95). Perhaps student-athletes are unique in that males tend to have greater religious commitment while in college and females are more likely to be skeptical of their religion, maintain conservative views, and struggle with establishing authentic spiritual relationships. In both cases, male and female student-athletes are reporting high levels of spiritual development, but male student-athletes tend to me more accepting of their place in life and their established belief system, while female student-athletes appear to be searching for greater authenticity.

White student-athletes scored a higher mean as compared to Blacks in the following subscales: ethic of caring, charitable involvement, religious/social conservatism, spiritual quest, and spiritual identification. Black student-athletes had a greater mean score than Whites in the religious engagement subscale. Research clearly supports the latter finding in that Black student-athletes exhibit higher mean scores for religious engagement as marginalized and oppressed
groups are more likely to seek religious engagement (Cone, 1997; Townes, 1995). The areas in which White student-athletes reported higher levels of spirituality as compared to Black student-athletes may have indicate differences in familial upbringings and values.

This study has served as a launching pad in determining the spiritual developmental processes of student-athletes. Great opportunity still exists for further expansion of literature exploring the relationship between college student-athletes and spiritual development. With research indicating the majority of college students experience spiritual development during their collegiate years, it is imperative to continue studying collegiate sub-groups. Additionally, the aim of higher education to promote holistic education and the connection between spirituality and health and healing indicate a need for further research in this field. Benefits associated with college students’ spiritual growth resulting in promoting the public good along with their individual academic achievement provide continued support for the call to study spiritual development of collegiate student-athletes.
REFERENCES


Fowler, J.W. (1977). Faith and the structuring of meaning. Unpublished manuscript, Candler School of Theology, Emory University, Atlanta, Georgia.


Love, P.G. (Fall 2001). Spirituality and student development: Theoretical connections. *New Directions for Student Services, 95*.


SPSS Inc. (2009). *SPSS [computer software]*. Chicago, IL: IBM.


APPENDIX A: INFORMED CONSENT SCRIPT

A research study is being conducted using survey results from student-athletes who complete the College Students’ Beliefs and Values Survey. Each of you has received a brown envelope containing an informed consent form and survey instrument. This survey instrument has been created by Alexander Astin and the Higher Education Research Institute at UCLA. I would greatly appreciate it if all of you would participate in completing this brief survey; however, you do have the right to opt out of completing this survey at any time. Completion of this survey will take between 15 and 30 minutes. Tonight’s speaker will begin in approximately 30 minutes and should conclude no later than 7:45. Should you agree to participate in this study, you will be invited to partake in a free dinner in the lobby of Hamilton Hall upon completion of the career services presentation. I will read through the informed consent with you so that you fully understand the purpose of this study. However, I will ask that you not sign the informed consent so that your anonymity will be protected. In addition to your name remaining anonymous, your confidentiality will also be protected as the researcher plans to use the data collected from this survey to inform researchers in higher education of collegiate student-athletes self-reported beliefs and values. The researcher will also seek to identify any differences between beliefs and values reported by student-athletes in different sports. There are no risks or benefits associated with the completion of this survey. Thank you for your cooperation.

You may now open your envelope and remove all enclosed forms. The first form is the informed consent. Please read it silently as I read aloud. (READ INFORMED CONSENT). Remember, that you do not need to sign this form as your answers will remain anonymous.

It is now time to complete the College Students’ Beliefs and Values Survey. This questionnaire is a scantron, so please use the provided pencil and mark your answers by filling in the bubbles completely. If at any time you need a new pencil, please raise your pencil in the air
and a new one will be brought to you shortly. Please take your time and answer honestly. When you are finished, please place all three forms in the envelope and seal the envelope shut. Just before the speaker begins, we will ask for all envelopes to be passed to the end of the aisle. A separate container will be passed around for you to place your pencil in. Again, thank you for your participation in this study.
APPENDIX B: PERMISSION TO USE CSBV SURVEY

-----Original Message-----
From: Alexander Astin [mailto:aastin@gseis.ucla.edu]
Sent: Wednesday, November 05, 2008 1:47 PM
To: Brian D Bourke
Cc: Lena Astin; Jennifer Lindholm
Subject: Re: CSBV use

Dear Dr. Bourke:

You can find copies of our surveys on our website:
www.spirituality.ucla.edu. Feel free to reproduce any of these
surveys, provided that you give full credit for the source in any
publications.

Good luck!

Alexander W. Astin
Allan M. Cartter Professor Emeritus &
Founding Director
Higher Education Research Institute
University of California, Los Angeles
aastin@gseis.ucla.edu

On Nov 4, 2008, at 11:14 AM, Brian D Bourke wrote:

> Dr. Astin,
> 
> I am currently advising a doctoral student at Louisiana State
> University, Jessica Clarke, who is currently writing a dissertation
> in which she intends to explore links between participation in
> intercollegiate athletics and spirit development. She has drawn
> heavily on your work, as well as other publications that have come
> out of the Spirituality in Higher Education study. Jessica would
> like to use the 2003 iteration of the CSBV for use in her
> dissertation, but has not had success in finding information on how
> to gain permission and/or purchase.
> 
> Can you provide guidance on the possibility of gaining permission
> to use the CSBV for use in her dissertation? Her intent is to
administer the survey to a sample of student athletes from a selection of team and individual sports at a single institution.

Thank you in advance for your response,

Brian Bourke, Ph.D.
Assistant Professor
Higher Education Administration
Louisiana State University
121B Peabody Hall
Baton Rouge, LA 70819
225.578.4759
bbourke@lsu.edu
APPENDIX C: SURVEY INSTRUMENT

COLLEGE STUDENTS' BELIEFS AND VALUES SURVEY

1. How many years of undergraduate education have you completed so far?
   - 1
   - 2
   - 3
   - 4 or more

2. Please specify your undergraduate major:

3. Please specify your probable career/occupation:

4. Mark the one oval that best describes your undergraduate grade average so far.
   - A (3.75 - 4.0)
   - A-, B+ (3.25 - 3.74)
   - B (2.75 - 3.24)
   - B-, C+ (2.26 - 2.74)
   - C (1.75 - 2.24)
   - C- or less (below 1.75)

5. Please indicate the highest degree you plan to complete eventually at any institution. (Mark one)
   - None
   - Vocational certificate
   - Associate (A.A. or equivalent)
   - Bachelor's degree (B.A., B.S., etc.)
   - Master's degree (M.A., M.S., etc.)
   - Ph.D. or K.D.
   - M.D., D.O., D.D.S., or D.V.M.
   - LL.B. or J.D. (Law)
   - B.D. or M. DIV. (Divinity)
   - Other

6. Since entering college have you:
   - (Mark all that apply)
   - Joined a social fraternity or sorority
   - Had a part-time job on campus
   - Had a part-time job off campus
   - Worked full-time while attending school
   - Participated in student government
   - Discussed religion/spirituality with friends
   - Attended a racial/cultural awareness workshop
   - Participated in: intercollegiate football or basketball
   - Participated in: other intercollegiate sport
   - Participated in leadership training
   - Discussed religion/spirituality in class
   - Joined a religious organization on campus
   - Converted to another religion

7. During the past year, how much time did you spend during a typical week doing the following activities? (Mark one for each item)
   - Over 30
   - 21 - 30
   - 16 - 20
   - 11 - 15
   - 6 - 10
   - 3 - 5
   - 1 - 2
   - Less than 1 hour
   - None

   - Studying/homework
   - Socializing with friends
   - Talking with faculty outside of class
   - Exercising/sports
   - Partying
   - Student clubs/groups
   - Watching TV
   - Reading for pleasure
   - Using a personal computer
   - Commuting
8. For the activities listed below, please indicate how often you engaged in each since entering college. (Mark one for each item)

- Not at All
- Occasionally
- Frequently

- Socialized with someone of another racial/ethnic group
- Felt overwhelmed by all I had to do
- Attended a religious service
- Drank beer
- Drank wine or liquor
- Discussed politics
- Sought personal counseling
- Took interdisciplinary courses
- Tutored another college student

9. Compared with when you first started college, how would you now describe your: (Mark one for each item)

- Much weaker
- Weaker
- No change
- Stronger
- Much stronger

- Ability to think critically
- Knowledge of people from different races/cultures
- Religious beliefs and convictions
- Leadership abilities
- Interpersonal skills
- Ability to get along with people of different races/cultures
- Understanding of the problems facing your community
- Understanding of social problems facing our nation
- Understanding of global issues
- Acceptance of people with different religious/spiritual views
- Spirituality
- Religiousness

10. How often have professors at your current college provided you with: (Mark one for each item)

- Not at All
- Occasionally
- Frequently

- Advice and guidance about your educational program
- Respect (treated you like a colleague/peer)
- Emotional support and encouragement
- Opportunities to discuss the purpose/meaning of life
- Negative feedback about your academic work
- Intellectual challenge or stimulation
- Opportunities to discuss coursework outside of class
- Help in achieving your professional goals
- Encouragement to discuss religious/spiritual matters

11. Your current religious preference: (Mark one)

- Lutheran
- Methodist
- Eastern Orthodox
- Presbyterian
- Quaker
- Roman Catholic
- 7th Day Adventist
- Unitarian/Universalist
- LDS (Mormon)
- United Church of Christ
- Other Christian religion (specify below)
- Other religion (specify below)

12. Do you consider yourself a Born-Again Christian?  
- Yes
- No

13. Please indicate the importance to you personally of each of the following: (Mark one for each item)

- Not important
- Somewhat important
- Very important
- Essential

- Becoming accomplished in one of the performing arts
- (acting, dancing, etc.)
- Becoming an authority in my field
- Influencing the political structure
- Influencing social values
- Raising a family
- Helping others who are in difficulty
- Making a theoretical contribution to science
- Writing original works (poems, novels, short stories, etc.)
- Creating artistic works (painting, sculpture, decorating, etc.)
- Becoming successful in a business of my own
- Becoming involved in programs to clean up the environment
- Developing a meaningful philosophy of life
- Participating in a community action program
- Helping to promote racial understanding
- Becoming a community leader
- Integrating spirituality into my life
14. Please indicate your agreement with each of the following statements:
(Mark one for each item)

Disagree Strongly
Disagree Somewhat
Agree Somewhat
Agree Strongly

- Love is at the root of all the great religions
- All life is interconnected
- Believing in supernatural phenomena is foolish
- We are all spiritual beings.
- It is futile to try to discover the purpose of existence
- People can reach a higher spiritual plane of consciousness through meditation or prayer
- The evil in this world seems to outweigh the good
- Some religious traditions convey more truth than others
- Most people can grow spiritually without being religious
- People who don't believe in God will be punished
- Non-religious people can lead lives that are just as moral as those of religious believers
- The universe arose by chance
- In the future, science will be able to explain everything
- While science can provide important information about the physical world, only religion can truly explain existence

15. The relationship between science and religion is one of:
(Mark one)
- Conflict; I consider myself to be on the side of science
- Conflict; I consider myself to be on the side of religion
- Independence; they refer to different aspects of reality
- Collaboration; each can be used to help validate the other

16. Do you pray?
- Yes
- No (Skip to #18)

17. If yes, why do you pray?
- For help in solving problems
- To express gratitude
- For emotional strength
- To relieve the suffering of others
- Other

18. How often do you engage in the following activities?
(Mark one)

Daily
Several Times/week
Once/Week
Monthly
Less Than Monthly
Not At All

Self-reflection
Prayer
Meditation
Yoga, Tai Chi, or similar practice
Religious singing/chanting
Reading sacred texts
Other reading on religion/spirituality

19. Please indicate the extent to which each of the following describes you:
(Mark one for each item)

Not At All
To Some Extent
To A Great Extent

- Having an interest in spirituality
- Believing in the sacredness of life
- Feeling unsettled about spiritual and religious matters
- Believing only what I can see or can be explained
- Feeling good about the direction in which my life is headed
- Feeling a sense of connection with God/Higher Power that transcends my personal self
- Feeling a strong connection to all humanity
- Feeling disillusioned with my religious upbringing
- Having an interest in different religious traditions
- Being committed to introducing people to my faith
- Believing in the goodness of all people
- Being grateful for all that has happened to me
- Seeing each day, good or bad, as a gift
- Seeking to follow religious teachings in my everyday life
- Believing in life after death

20. Which of the following best characterizes your conception of or experience with God?
(Mark one)

- Universal spirit
- Divine mystery
- Higher Power
- Supreme Being
- Love
- None of the above
- Source of all existence
- Other

21. How do you view God or other Higher Power in relation to yourself?
(Mark all that apply)

- Father-figure
- Mother-figure
- Friend
- Teacher
- Part of me
- Other

22. Please indicate the importance to you personally of each of the following:
(Mark one)

Not Important
Somewhat Important
Very Important
Essential

- Seeking out opportunities to help me grow spiritually
- Reducing pain and suffering in the world
- Attaining inner harmony
- Attaining wisdom
- Seeking beauty in my life
- Finding answers to the mysteries of life
- Becoming a more loving person
- Following faithfully the Laws and Rules taught by my religion
- Improving the human condition

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Sur-Scan by CAE 578-1145 # 251

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23. Have you ever had a "spiritual" experience while:
(Not Applicable)

- In a house of worship
- Listening to beautiful music
- Viewing a great work of art
- Participating in a musical or artistic performance
- Engaging in athletics
- Witnessing the beauty and harmony of nature
- Making love
- Meditating
- Other

24. Since entering college, please indicate how often you have: (Mark one for each item)

- Not At All
- Occasionally
- Frequently
- Occasionally

- Participated in community food or clothing drives
- Helped friends with personal problems
- Donated money to charity
- Felt angry with God
- Felt loved by God
- Struggled to understand evil, suffering, and death
- Questioned your religious/spiritual views
- Spent time with people who share your religious views
- Felt that your life is filled with stress and anxiety
- Been able to find meaning in times of hardship
- Expressed gratitude to others
- Felt at peace/centered
- Explored religion online
- Found new meaning in the rituals and practices of my religion
- Attended a class/workshop or retreat on matters related to religion/spirituality

25. The ultimate spiritual quest for me is:
(Not Applicable)

- To discover who I really am
- To know what God requires of me
- To become a better person
- To know my purpose in life
- To make the world a better place
- Other

26. Continued

- Not Applicable
- Strengthened
- Weakened
- No Change

- Epiphany/Conversion/Mystical event
- Natural disaster
- Campus tragedy
- The events of September 11th, 2001
- Other

27. How many of your close friends:

(Each one for each item)

- None
- Some
- Most
- All

- Share your religious/spiritual views?
- Belong to a campus religious organization?
- Are of a particular religious group?
- In what aspect of your life?  
- To go to church/temple/or other house of worship?

28. Please indicate the extent to which you engage in the following activities:

(Each one for each item)

- To Some Extent
- To A Great Extent
- Searching for meaning/purpose in life
- Trying to change things that are unfair in the world
- Accepting others as they are
- Having discussions about meaning of life with my friends

29. Please indicate your agreement with each of the following statements:

(Each one for each item)

- Disagree Strongly
- Disagree Somewhat
- Agree Somewhat
- Agree Strongly

- Whether or not there is a Supreme Being is a matter of indifference to me
- It doesn't matter what I believe as long as I lead a moral life
- I have never felt a sense of sacredness
- I gain spiritual strength by trusting in a Higher Power
- I find religion to be personally helpful
- I know someone I can turn to for spiritual guidance
- Abortion should be legal
- The death penalty should be abolished
- If two people really like each other, it's all right for them to have sex even if they've known each other for only a very short time
- The activities of married women are best confined to the home and family
- Marijuana should be legalized
- It is important to have laws prohibiting homosexual relationships
- Relationally, an individual can do little to bring about change in our society
30. My spiritual/religious beliefs:
   (Mark one for each item)
   Disagree Strongly
   Disagree Somewhat
   Agree Somewhat
   Agree Strongly

   Have helped me develop my identity
   Are one of the most important things in my life
   Give meaning/purpose to my life
   Help define the goals I set for myself
   Provide me with strength, support, and guidance
   Lie behind my whole approach to life

31. Rate yourself on each of the following traits as compared with the average person your age. We want the most accurate estimate of how you see yourself. (Mark one for each trait)

   Lowest 10%  Below Average  Average  Above Average  Highest 10%
   Altruism
   Compassion
   Cooperativeness
   Courage
   Creativity
   Dependability
   Drive to achieve
   Emotional health
   Empathy
   Forgiveness
   Generosity
   Gratefulness
   Helpfulness
   Humility
   Kindness
   Leadership ability
   Loyalty
   Open-mindedness
   Patience
   Physical health
   Religiousness/Religiosity
   Respectfulness
   Self-awareness
   Self-confidence (intellectual)
   Self-confidence (social)
   Self-understanding
   Spirituality
   Understanding of others

32. Please rate your satisfaction with your current college on each of the aspects of campus life listed below. (Mark one for each item)

   No Experience/Can't Rate
   Dissatisfied
   Neutral
   Satisfied
   Very Satisfied

   Relevance of coursework to everyday life
   Sense of community on campus
   Opportunities for religious/spiritual reflection
   Career counseling and advising
   Amount of contact with faculty
   Interaction with other students
   Respect for diverse spiritual/religious beliefs
   Overall college experience

THANK YOU!
VITA

Jessica Lauder Clarke, daughter of James Sutherland (Jimmy) Clarke and Sandra Pontiff Clarke, was born in March, 1981 in Lafayette, Louisiana. She graduated in 1999 from Lafayette High School in Lafayette, Louisiana. Jessica holds a Bachelor of Science in Business Administration (2003) from the University of Louisiana at Lafayette and a Master of Education (2006) from the University of Louisiana at Lafayette.

Jessica was initially employed as an elementary school teacher at Sugarland Elementary in New Iberia, Louisiana (2003-2005). While completing her Master of Education Degree, Jessica was a graduate assistant in the Athletic Department at the University of Louisiana at Lafayette (2005-2006). While attending Louisiana State University, Jessica worked as an elementary school tutor for First Baptist Elementary School in Lafayette, Louisiana (2006-2007). Since 2007, Jessica has served in the capacity of Assistant Athletic Director for Compliance at the University of Louisiana at Lafayette.