

ABSTRACT

An Analysis of the Strength of Religious Faith of Student-Athletes and Non-Student-Athletes at NCAA Division I-FBS Institutions

Jonathan W. Evans, M.S.

Mentor: Jeffrey C. Petersen, Ph.D.

This study evaluated and compared the religiosity of student-athletes and non-student-athletes at faith-based and non-faith-based NCAA Division I-FBS institutions via a modified version of the Santa Clara Strength of Religious Faith Questionnaire. A comparison of religiosity between institutions, gender, and student-athlete status was made as well as an exploration of the relationship between religiosity of these students and their intentions to use alcohol, tobacco, or performance enhancing drugs from a representative sample from two institutions ($N = 613$). Results from a $2 \times 2 \times 2$ ANOVA found significant differences in religiosity based on gender, but no significant differences in religiosity by institution. The student-athletes at the non-faith-based institution were significantly more religious than the non-student-athletes. Logistic regression revealed students at the faith-based school were more likely to agree their faith impacted decisions regarding college choice, academic/athletic performance, alcohol, tobacco, and performance-enhancing drug use than those from the non-faith-based school.

An Analysis of the Strength of Religious Faith of Student-
Athletes and Non-Student-Athletes at NCAA Division I-FBS Institutions

by

Jonathan W. Evans, B.A.

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Approved by the Department of Health, Human Performance and Recreation

Paul M. Gordon, Ph.D., Chairperson

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Approved by the Thesis Committee

Jeffrey C. Petersen, Ph.D., Chairperson

Marshall J. Magnusen, Ph.D.

Paul H. Martens, Ph.D.

Accepted by the Graduate School
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J. Larry Lyon, Ph.D., Dean

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CHAPTER ONE

Introduction

The intersection of religion and sports is apparent, even to the casual observer. Religious athletes used to endure mocking by media and other athletes (Nixon & Frey, 1996), but now, spiritual rituals are frequent at interscholastic, intercollegiate, and professional competitions (Czech, Wrisberg, Fisher, Thompson, & Hayes, G, 2004; Kreider, 2003). Prayer, for example, is one of the most ubiquitous religious practices of athletes, frequently gesturing crucifixes after prayer and performing (Leonard, 1998). Sports telecasts often include clips of postgame interviews in which athletes discuss their faith; highlights include end-zone prayers or post-game prayers at midfield (Bell, 2007; Hoffman, 1999). The rise of the evangelical Christian athlete in the United States has spawned many sports-specific ministries like the Fellowship of Christian Athletes (FCA) and Athletes in Action (AIA). Sports chaplaincy has boomed as a profession (Dzikus, Waller, & Hardin, 2011). Virtually every Major League Baseball (MLB), National Basketball Association (NBA), and National Football League (NFL) team holds Sunday chapel services (Czech et al., 2004). Hundreds of chaplains serve in intercollegiate sports (Dzikus et al., 2011). In the academic realm, the significance of the relationship between sports and religion has spawned The Centre for the Study of Sport and Spirituality (York St. John College, 2005). Despite the rise in visibility of religion in sports due to expanding 24-hour media coverage and interest in the relationship between religion and sports, additional research on the relationship between college student athletes and religion is warranted.

Statement of the Problem

According to Todd Patulski, Deputy Athletics Director at Baylor University, the rising profile of NCAA Division I-FBS athletics has led some college administrators to describe their athletic programs as the “front porch” of their university (personal communication, March 20, 2011). Universities, athletic departments, and their donors allocate immense resources to their athletic programs, including the recruitment of prospective athletes. As the notoriety of the programs increase, so too, do the athletes’ discipline issues. Separate research initiatives have examined the connection between intercollegiate athletes’ religiosity and their behaviors or compared the religiosity between athletes and non-student athletes (Bell, 2007; Bell, Johnson, & Petersen, 2009; Cavar, Sekulic, & Culjak, 2012; Czech & Bullet, 2007; Czech et al., 2004; Dillon & Tait, 2000; Kelley, Hoffman, & Gill, 1990; Moore, Berkley-Patton, & Hawes, 2011; Rodek, Sekulic, & Pasalic, 2009; Storch, Kolski, Silvestri, & Storch, 2001; Storch, Storch, Kovacs, Okun, & Welsh, 2003; Storch, Roberti, Bravata, & Storch, 2004; Watson & Czech, 2005). However, very little research has integrated the study of intercollegiate athletes’ religiosity, its relationship to their behaviors, and the comparison of religiosity between non-student athletes at the NCAA Division I-FBS level. Such research could improve the knowledge and strategies of intercollegiate sports coaches, administrators, and consultants in their efforts to attract athletes that fit best with their institutions and respond to intercollegiate athletes’ behaviors. For example, given two prospective athletes with similar physical skill sets and one scholarship to offer, a coach should pursue the athlete whose degree of religiosity better matches the institution, the coaching staff, or current members of the team. Additionally, enhanced knowledge of the role

religion plays in intercollegiate athletes' lives could assist in responding to alcohol, drug, or other risky behaviors.

Purpose

The purpose of this study is to evaluate and compare the religiosity of student-athletes and non-student-athletes at faith-based and non-faith based NCAA Division I-FBS institutions. A comparison of religiosity between institutions, gender, and student-athlete status will be made as well as to explore the relationship between religiosity of these students and their intentions to use alcohol, tobacco or performance enhancing drugs (PEDs). Results can be used to help coaches, sports consultants, and other relevant athletic personnel better understand the relationship between intercollegiate athletes and their faith. Such information could improve how and who coaches recruit intercollegiate athletes and how best to communicate with and motivate them.

Research Questions

The following questions were asked in this study:

1. What differences exist in the strength of religious faith between student-athletes and non-student-athletes attending a faith-based NCAA Division I-FBS institution and student-athletes and non-student-athletes attending a non-faith-based NCAA Division I-FBS institution?
2. What differences exist in the strength of religious faith between student-athletes attending a non-faith-based NCAA Division I-FBS institution and non-student-athletes at the same institution?

3. What differences exist in the strength of religious faith between student-athletes attending a faith-based NCAA Division I-FBS institution and non-student-athletes at the same institution?
4. What gender differences exist in the strength of religious faith in students and student-athletes attending a faith-based NCAA Division I-FBS institution and students and student-athletes attending a non-faith-based NCAA Division I-FBS institution?
5. How does the strength of religiosity impact the decision to attend the institution, academic and/or athletic performance, as well as alcohol, tobacco, and performance enhancing drug use intentions and use or non-use in student-athletes and non-student athletes?

Definition of Terms

The following terms were important to the study:

National Collegiate Athletic Association (NCAA): The NCAA is an association of 1,273 universities, athletic conferences, and related associations organized with the intent of protecting student athletes, emphasizing excellence in academics and athletics. The NCAA is comprised of three separate divisions: Division I, Division II, and Division III (NCAA, 2012).

NCAA Division I-FBS: The Division I-Football Bowl Subdivision is comprised of 120 member institutions. This subdivision subscribes to a post-season bowl system to determine its national champion in football, rather than a playoff system; however, in 2012, a four-team football playoff was approved for the 2014 season. These institutions

must field a minimum of 16 NCAA teams, offer a minimum number of scholarships, but cannot exceed a maximum number of scholarships (NCAA, 2012).

Religion: For the purposes of this study, religion was defined by Beit-Hallahmi as “a system of beliefs in divine or superhuman powers, and ritual practices directed toward such powers (2010, p. 350).

Religious Faith: For the purposes of this study, religious faith was identified as “the belief in a higher power that provides meaning and purpose in life, and which is demonstrated through behavior, such as prayer and attending services” (Edwards, Lapp-Rincker, Magyar-Moe, Rehfeldt, Ryder, Brown, et al. 2002, p. 148).

Faith-based: A majority of private, NCAA Division I-FBS colleges and universities were founded with religious affiliation. Subsequently, for the purposes of this study, a faith-based institution was identified as one affiliated with the Council for Christian Colleges and Universities (CCCCU). The CCCCU stipulates that an affiliate must have a “strong commitment to Christ-centered higher education” (Counsel for Christian Colleges and Universities, 2013, ¶4).

Student-athletes: For the purposes of this study, student-athletes were identified as “students who currently participated in intercollegiate athletics, sponsored by the university and governed by the NCAA” (Bell, 2007, p. 6). Subsequently, students involved in club or intramural sports were not considered student-athletes.

Non-student-athletes: For the purposes of this study, non-student-athletes were identified as “individuals presently enrolled in classes at their respective institution” (Bell, 2007, p. 6). These students, however, were not currently participating in intercollegiate athletics, sponsored by the university and governed by the NCAA.

Assumptions

This study was developed under the following basic assumptions:

1. The subjects conformed to verbal and written instructions and responded to the statements honestly.
2. Student-athletes and non-student-athletes attending NCAA Division I-FBS institutions completed the questionnaires.
3. The subjects' responses were indicative of their current strength of religious faith.

Limitations

The following limitations were applicable to this study:

1. The format of the Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ) limited subjects to quantitative data. Subjects were not able to provide open responses in a qualitative format.
2. The extent to which subjects were representative of all NCAA Division-I FBS institutions.
3. Subjects' attitude during the completion of the Santa Clara Strength of Religious Faith Questionnaire.
4. Hill and Hood (1999) assert that a vast majority of religiosity measures were developed by sampling American college students, constituting an obvious American Protestant orientation -- including the SCSRFQ used in this study (Plante & Boccacini, 1997). For example, "I consider myself active in my faith or church" is an item included in the instrument; the term "church" is inherently a Judeo-Christian term for organized religious services. Given this situation, these scales and measures may present a degree of Judeo-Christian bias.

Delimitations

The study was delimited to:

1. Only two NCAA Division I-FBS institutions.
2. Only NCAA Division I-FBS student-athletes and non-student-athletes.
3. Only sport programs available at both participating institutions.

Significance of Study

While previous research has examined the religiosity of intercollegiate athletes at Division I (Czech et al., 2004; Moore et al., 2011; Storch et al., 2001; Storch et al., 2004), Division II (Czech & Bullet, 2007), and Division III (Bell et al., 2009; Dillon & Tait, 2000) student-athletes, little has been done to examine the integration of strength of religious faith and alcohol, recreational substance abuse, and performance enhancement drug use. Furthermore, most studies have been limited to student-athletes, without comparing results from a non-student-athlete sample. Research comparing the religiosity of student-athletes between religious and non-religious Division I-FBS institutions is scant. This study's examination of the strength of religious faith in student-athletes and non-student athletes enrolled at a faith-based and non-faith-based NCAA Division I-FBS institution in order to address this void in this line of research. In addition to religiosity measure and comparisons, faith impacted decisions regarding alcohol, tobacco, and performance enhancement drugs will be measured. By investigating the potential relationship between student-athletes' strength of religious faith and their alcohol and drug use behaviors, coaches, sport consultants, and athletes will benefit. Improved awareness of how a student-athlete's faith impacts their behaviors might lead to improved coaching and recruiting strategies and substance abuse interventions. Furthermore, the

subjects may improve understanding and awareness of their religious faith and its roles in their lives.

CHAPTER TWO

Review of Literature

As the intersection of religion and sport continues to draw the attention of sport fans, the media, sport organizations, and the athletes themselves, it is important to explore the prior research on this topic in order to inform the development of this project. This chapter includes a review of the literature in regard to religion and well-being, religion and sport, religion and college students, religion and intercollegiate athletes, and measuring religiosity.

Religion and Well-being

According to a 2011 Gallup survey, 55% of Americans say religion is very important in their lives, with an additional 26% listing religion as fairly important (Gallup, 2012). Further, 86% of Americans believe in God and 59% identify as members of a church or synagogue. Also of note, 57% of Americans say that religion can solve all or most of today's problems. Based on this survey, it is evident that religion has remained a significant and influential facet of American life and culture. According to Ellison and Levin (1998), more religious persons enjoy larger, more supportive social networks, possess distinctive coping skills and practices (e.g., meditation, prayer, or other devotional pursuits), have more access to formal religious programming, and benefit from higher levels of various psychological resources, such as self-esteem, hopefulness, sense of meaning and purpose and other benefits. Furthermore, religion has been connected with reduced negative health behaviors like substance abuse, heavy drinking, and risky sexual behavior (Hill, Burdette, Ellison, & Musick, 2006; Hill, Ellison,

Burdette, & Musick, 2007). Subsequently, these reduced negative health behaviors influence the rate cancer, stroke, and heart disease (Koenig, McCullough, & Larson, 2001). Religion has also been found to help those who are coping with disease. For example, Gall (2004) revealed that men with prostate cancer viewed their relationship with God as a coping resource, and a 2006 study by Meraviglia indicated that prayer reduced the impact of breast cancer on women. Church attendance has been negatively correlated with anxiety and depression in college students (Jansen, Motley & Hovey, 2010). Stronger religiosity was also found to be a predictor of shorter time to remission in older patients suffering from depression (Koenig, George, & Peterson, 1998). Plante and Boccaccini (1997) discovered that a strong religious faith resulted in the belief that God can intervene in achievement and a higher self-esteem. Azimirad and Jalilvand (2012) found that contentment and joy experienced in prayer was an element in a positive correlation to self-confidence in sport in a study of 400 Iranian male athletes. In general, religion has been found to improve health and well-being through reduced stress, increased healthy practices, and enhanced social support (Wise-Bjornstal, 2000). Additionally, in a review of social science, public health, and medical literatures, Hummer, Ellison, Rogers, Moulton, and Romero (2004) found an association between more frequent public religious attendance and reduced mortality risks among American adults. McCullough, Hoyt, Larson, Koenig, and Thoresen (2000) found a similar association in a meta-analysis of 42 independent samples. These longitudinal studies found that subjects with higher religious involvement were more likely to be alive than those with lower religious involvement.

Religion and Sport

The connection between religiosity and sport can be traced to the Ancient Olympic Games, where athletes sought to gain the favor of the gods with athletic prowess (Obare, 2000). Ancient Olympic athletes swore allegiance to Zeus and offered sacrifices. Ironically, religion would also be the games' undoing, as a Roman emperor (Theodosius I or Theodosius II depending upon the historical interpreter) ended them as a pagan threat to the state-imposed religion of Christianity (Kotynski, 2006). Sport is referenced by a variety of religious texts. Christianity and the New Testament make several references to sport, particularly foot-racing. For example, "Do you not know that in a race all the runners run, but only one gets the prize? Run in such a way as to get the prize" (I Corinthians 9:24, New International Version). Another verse reads "I have fought the good fight. I have finished the race, I have kept the faith" (II Timothy 4:7). Islamic texts also encourage various sports (Ismail, 2001). The Hadith, teachings of the Islamic prophet, Muhammad, specifically support swimming, archery, and horseback riding. For example, in referring to archery, Muhammad said, "Shoot, and I am with you" (Ismail, 2001, p. 54). Ulama, an ancient Mesoamerican sport involving a rubber ball being knocked through a stone hoop, often including human sacrifice, is mentioned in Aztec religious text (Fox, 2006). While not as prevalent in Jewish religious texts, many leaders of the Jewish Zionist movement, which encouraged nationalism and opposed assimilation into other cultures, called for an increased emphasis on physical training and fitness (Eisen, 1998).

The modern intersection of religion and sport can be traced to the transformation of public schools in 19th-century Great Britain (Parker & Weir, 2012). It should be noted

that public schools in Victorian England were actually privately funded, but open to students from any residence or religious affiliation (Shrosbree, 1988). Specifically, Thomas Arnold, Headteacher of Rugby School from 1828 to 1841, introduced new curricular structures aimed at fostering “good Christian gentlemen.” The Rugby School experience during this time featured sport-specific elements overseen by Arnold’s colleague, Reverend George Cotton. Thomas Hughes, a former student of Arnold’s, authored, *Thomas Brown’s Schooldays*, in 1857. The influential novel described how a boy’s character is transformed at Rugby School, including the pursuit of physical endeavors and a high sense of moral value. This pursuit became known as “muscular Christianity.” Hughes’s novel and the reputation of the Rugby School made a profound impression on Baron Pierre de Coubertin, the founder of the modern Olympic Games (Parker & Weir, 2012).

The underpinnings of the muscular Christianity movement could be found in Victorian-era issues like “the protection of the weak, the plight of the poor, and the promotion of moral virtue” (Parker & Weir, 2012, p. 255). The dual pursuit of spiritual purity and physical fitness gave rise to a litany of values that connected religion and sport: loyalty, physical and emotional strength, fair play, self-control, and self-sacrifice. McLeod, Orchard, & Briggs (2007) revealed that British churches in the 1850s began to recognize the social and religious value that sports could provide. Between the years of 1871 to 1880, it estimated that 20% of cricket clubs and 25% of soccer clubs in Birmingham, England were linked to religious organizations (Scott, 1970).

The development of other organizations with missions directly connected with both sport and the Christian faith continued the underpinning seen in The Rugby School.

The Young Men's Christian Association (YMCA) was initially founded in London as an evangelical organization for single men in 1844, but the 1860s ushered in the organization's additional emphasis on physical development (Zald & Denton, 1963). In the United States, Youth For Christ (YFC) evangelist, Billy Graham, recognized sports as a valuable vehicle for making his ministry more visible (Parker & Weir, 2012). In 1945, Graham enlisted distance running icon Gill Dodds to run against local opponents and to then discuss his Christian faith. Three major American sport ministry entities emerged in the wake of Billy Graham's new evangelical approach. The Fellowship of Christian Athletes (FCA) was founded in 1954; its current mission is "To present to coaches and athletes, and all whom they influence, the challenge and adventure of receiving Jesus Christ as Savior and Lord, serving Him in their relationships and in the fellowship of the church" (Fellowship of Christian Athletes, 2012). Similarly, Athletes in Action (AIA) was founded in 1966 as a response to athletes and coaches who had "abandoned limits and a moral compass for a 'win at all cost' mentality" (Athletes in Action, 2012, ¶ 2). In addition, the National Christian College Athletic Association (NCCAA) was founded in 1968 "to provide a Christian-based organization that functions uniquely as a national and international agency for the promotion of outreach and ministry and for the maintenance, enhancement and promotion of intercollegiate athletic competition with a Christian perspective" (National Christian College Athletic Association, 2012). In the United Kingdom, the Christian Sportsmen's Outreach was founded in 1975, now known as Christians in Sport (Parker & Weir, 2012).

The rise of evangelical Christians in American professional sports paved the way for increasing opportunities in sports chaplaincy (Parker & Weir, 2012; Dzikus, Hardin,

& Waller, 2012). In 1974, MLB commissioner, Bowie Kuhn, allowed for the creation of Baseball Chapel, which created chapel programs for every major league baseball team (Baseball Chapel, 2012). Currently, Baseball Chapel coordinates programming for all 210 major and minor league teams. In 2007, the FCA estimated that hundreds of chaplains served in American intercollegiate sports (Dzikus et al., 2011). Increased demand for sport ministry also spread to churches, causing an increase in resources dedicated to sports ministers and sports facilities (Parker & Weir, 2012). Recently, churches and evangelical organizations have identified major sporting events as platforms for religious messages. A multi-organizational outreach offensive called “Quest Australia – More than Gold” staged at the 2000 Sydney Olympics and Paralympics became the largest Christian campaign to be held at a major sporting event (Parker & Weir, 2012).

Most recently, there has been increased attention given to the religiosity of athletes, due in large part to perpetual media coverage and the advent of social media outlets like Twitter, whereby athletes can express their faith on a global platform. Tim Tebow, the 2007 Heisman Trophy winner and recent NFL quarterback for the Denver Broncos and New York Jets, openly acknowledges utilizing football as a vehicle for sharing his faith, which has been a very polarizing issue in the sports realm (ESPN, 2011). While praying in the end zone originated with NFL running back, Herb Lusk, in 1977 (Goldenbach, 2007), Tim Tebow's end zone prayer ritual became iconic (Branch & Pilon, 2012). Pre-game team prayer and post-game prayer shared between opposing teams have become commonplace (Coakley, 2006). Many teams employ a chaplain to guide their athletes' faith (Dzikus et al, 2011). Athletes routinely thank God or reference

their faith in press conferences (Blake, 2010) and display religious symbols in the form of jewelry or body art, such as a Bible verse or Christian cross tattoo (Tann, 2012).

Religion and College Students

Prior research reveals that when high school students leave home to matriculate into a college or university environment, they embark on a developmental time period called “emerging adulthood” (Arnett, 2000). Numerous studies have been conducted on how this transition impacts a young adult’s faith. According to Arnett and Jensen (2002), college students still claim religious affiliation and confirmed that religious beliefs were essential in their lives. However, attending college has been linked to a decline in religious service attendance (Willits & Crider, 1989). Furthermore, multiple studies show that between 30 and 40 % of attending college students completely disconnect from their religion (Hunsberger & Brown, 1984; Sandomirsky & Wilson, 1990; Brinkerhoff & Mackie, 1993).

Many faiths and denominations are susceptible to this phenomenon; Mormons, Catholics, and Presbyterians lost more of their college-age members than any other religious groups during (Albrecht, Cornwall, & Cunningham, 1988; Hoge, Johnson, & Luidens, 1993). Hoge et al. (1993) cited the expansion of college students’ cognitive understanding of the world away from their families in a new social environment as a cause of this religious disaffiliation. The cultivation of more secularized perspectives on the world, which may contradict their religious upbringing, further encourages this disconnection. Furthermore, the greater freedom allows college students to cease religious service attendance and participate in actions that breach the accepted behaviors of their religion. Substance abuse and non-marital sexual activity are examples of such

behavior. Interestingly, emerging adults who do not attend college have shown a steeper disconnection with their religion than those individuals who do attend college, thus, squelching the belief that higher education is the sole reason for such a change (Uecker, Regnerus, & Vaaler, 2007).

Furthermore, examinations of the religiosity of college students reveal a relationship between religiosity and sexual behaviors, alcohol consumption, tobacco and marijuana use, anxiety, depression, stress, and academic performance. A study of 634 conservative religious students at a Midwestern denominational university revealed that those who demonstrate higher internal or external religiosity were significantly less likely to engage in sexual activities (McMillen, Helm, & McBride, 2011).

According to Martens, Dams-O'Connor, and Beck (2006), collegiate alcohol use has become a significant public health issue. However, several studies have shown an inverse relationship between religiosity and risky alcohol behaviors (Burke, Van Olphen, Eliason, Howell, & Gonzalez, 2012; Martens, et al., 2006; Menagi, Harrell, & June, 2008; Turner-Musa, & Lipscomb, 2007; Wells, 2010). Using a modified version of the Core Alcohol and Drug Survey supplemented with questions about religiosity and spirituality, Burke, et al. (2012) sampled 2,312 students at San Francisco State University. Results revealed an association between religiosity and lower use of alcohol, tobacco use, and marijuana use.

Turner-Musa and Lipscomb (2007) studied 211 students at a historically black college or university (HBCU) located along the east coast and discovered that low spiritual well-being increased the likelihood of alcohol and tobacco use. Further, in a

study of 530 college students, those with the least religiosity were 27 time more likely to be heavy drinkers compared to students with higher religiosity (Wells, 2010).

Jansen et al. (2010) incorporated religiosity questions with the Beck Anxiety Inventory and the Beck Depression Inventory to reveal that religious service attendance was negatively correlated with anxiety and depression among 430 students at a large university in the Midwest. Merrill, Read, and LeCheminant (2009) surveyed 742 college students at a large, church-sponsored university using the Strength of Religious Faith Questionnaire (Plante & Boccacini, 1997); religiosity was beneficial to positive and negative outcomes associated with stress. In a survey of 3,924 students spanning 28 of the most selective American college and universities, regular attendance of religious services increased academic achievement and satisfaction at college (Mooney, 2010).

Religion and Intercollegiate Athletes

Although intercollegiate athletes are technically also college students, they do form a distinct sub-set of the student population, and in general have been the subject of a great deal of research. Research on the role of religion in intercollegiate athletes' lives has emerged during the last twenty years and a range of topics has been explored.

Religiosity between elite collegiate student-athletes and non-student athletes has been compared at the University of Florida using the Duke Religion Index (DRI) (Storch, et al., 2001). In a sample of 84 Division I student-athletes and 164 non-student-athletes, the study found that male and female student-athletes had a higher degree of religiosity than male non-student-athletes. Male and female student-athletes were not found to have significantly higher degrees of religiosity than female non-student-athletes according to measures via the DRI. In a similar follow-up study of 226 undergraduate students at the

University of Florida using a short form of the SCSRFAQ, higher strength of religious faith in student-athletes was reaffirmed (Storch et al., 2004).

Storch et al. (2003) utilized elements of the DRI and the Personality Assessment Inventory developed by Morey (1991) to assess the possible relationship between student-athletes' intrinsic religiosity and substance abuse. A sample of 105 student-athletes at a large, public university revealed an inverse association between them. Further research by Moore, et al. (2011) reaffirmed these findings. In a sample of 83 NCAA Division I student-athletes using an online version of the American College Health Association's (ACHA) National College Health Assessment (NCHA) with additional questions about religiosity, the influence of religious beliefs was found to predict lower alcohol use and sexual behavior.

Kelley et al. (1990) studied the possible connection between intercollegiate athletes' religiosity and competitive orientation. Using the Sport Orientation Questionnaire (SOQ) developed by Gill and Deeter (1988), the Religious Life Inventory developed by Batson and Ventis (1982) and the Religious Orientation Scale developed by Allport and Ross (1967), the study sampled 308 male and female student-athletes and non-student-athletes at six liberal arts colleges, three with more religious affiliation and three with more secular affiliation. The study found that religious orientation does influence the level and interpretation of one's involvement in sport competition.

Dillon and Tait (2000) developed the Spirituality in Sports Test (SIST) and Zone Test (ZT) to examine the possible connection between spirituality (which includes religiosity in their context) and "being in the zone," a very positive state of consciousness experienced during sports activities. Sixty-two male and female student-athletes and

non-student-athletes at a non-faith-based NCAA Division III institution were surveyed. A significant relationship between spirituality and being in the zone was discovered.

Additionally, research has examined the role of prayer in athletes' lives. Czech et al. (2004) interviewed nine former Division I Christian athletes about their prayer experiences before, during, and after competition. Responses revealed four major themes in the prayer of athletes: prayers to improve athletic performance, prayer as routine, prayers of thankfulness, and prayers that God's will be done. Czech and Bullet (2007) also expanded their research to 19 Christian Division II student-athletes; results showed that the intercollegiate athletes' perceptions of prayer revealed that prayer intensity, prayer meaning, and the number of prayers increased with the importance of the competition. Citing the variety of stressors experienced by intercollegiate athletes, Storch and Farber (2002) suggest prayer as "a coping mechanism that provides them with a sense of validation, hope and comfort" (p.16).

The initial research exploring student-athlete religiosity within faith-based universities was conducted by Bell et al. (2009). Using the SCSRFQ developed by Plante and Boccacini, the study surveyed 201 male and female student-athletes and non-student-athletes at a faith-based NCAA Division III institution and 174 male and female student-athletes and non-student-athletes at a non-faith-based NCAA Division III institution. The study found that college students at a faith-based institution have higher religiosity than students at a non-faith-based institution; however, student-athletes at a faith-based institution have lower religiosity than their non-student-athlete classmates. Further, it was found that women tend to have a higher degree of religiosity than men.

Religion and Gender

Previous research reveals that women typically score higher than men on measures of private and public religious practices (Jones, St. Peter, Fernandes, Herrenkohl, Kosterman, & Hawkins, 2011; Maselko & Kubzansky, 2006). For example, females are more likely to read the Bible and pray (Davis & Smith, 1991) than males and attend church services more regularly than males (Batson, Schoenrade, & Ventis, 1993). Cornwall (1989) found that this gender difference in religiosity maintained regardless of stage of life; however, Becker and Hofmeister (2001) found that the difference may diminish as men mature and adopt family-oriented responsibilities with men becoming more religious.

Measuring Religiosity and the SCSRFQ

While the pioneers of the psychology of religion, such as G. Stanley Hall, Edwin Starbuck, and William James, emerged in the early 20th Century, their research was dominated by overarching theories; very little of their work forwarded quantitative knowledge of the field (Emmons & Paloutzian, 2003). However, post-World War II interest in aggression, prejudice and the subsequent upheavals of the 1960s ushered a boom in efforts to measure religiosity. Most notably, the Religious Orientation Scale (ROS) developed by Allport and Ross (1967) measured religiosity in two distinct subscales, intrinsic and extrinsic (Hill & Hood, 1999). Intrinsic religiosity refers to an individual's goals set forth by the religion itself. Extrinsic religiosity, in contrast, refers to an individual's use of religion as a means to an end, motivated by utilitarianism (Lavric & Flere, 2010).

The ROS became the preeminent framework for quantifying religion (Slater, Hall, & Edwards, 2001), proved to be a major spark for similar research, and the Psychology of Religion became an official division of the American Psychological Association in 1976. By then, dozens of religiosity scales had been created. New measurements of religiosity continued to emerge in the 1980s and 1990s. Additionally, many studies on religiosity utilized pre-existing general surveys such as the World Values Survey or the Gallup World Poll (Gonzalez, 2011). Researchers have also procured data collected by the National Opinion Research Center (Ebaugh, et al., 2003). This center conducts the General Social Survey (GSS), which was administered almost every year from 1972 to 1995, after which it has been administered every other year (Bader, Mencken, & Froese, 2007). The General Social Surveys provided the foundation for the development of the Baylor Religion Survey in 2005, which included 400 questions regarding religiosity. Responding to a need for a compendium of existing religiosity scales, Hill and Hood's *Measures of Religiosity* (1999) cataloged over 100 standardized measurement tools organized into 17 categories, including religious beliefs, attitudes, values, and orientation, among others.

The ten-item SCSRFQ was developed amid a perception that while previous instruments sought to measure a wide spectrum of religious categories, strength of religious faith assessments did not exist (Plante & Boccacini, 1997). Additionally, the length and complexity of previous measurements were not compatible with researchers whose endeavors required a simpler, shorter device (such as was demanded by this study). The SCSRFQ was later refitted into a five-item format to accommodate research

involving severely ill patients and large epidemiological studies (Plante, Vallaey, Sherman, & Wallston, 2002). This instrument is examined further in the next chapter.

CHAPTER THREE

Methodology

The purpose of this study was to evaluate and compare the strength of religious faith among student-athletes and non-student-athletes attending a faith-based and a non-faith-based NCAA Division I institution. The methodology will be detailed in the following sections: participants, instrumentation, and procedure.

Participants

The target population of this research consisted of undergraduate students enrolled at Institution A and Institution B. Institution A was deemed faith-based because of its affiliation with the Council for Christian Colleges and Universities (CCCCU). The CCCCCU stipulates that an affiliate must have a “strong commitment to Christ-centered higher education” (Counsel for Christian Colleges and Universities, 2013, ¶4). Furthermore, Institution A requires Christian courses and mandatory chapel attendance as a part of its undergraduate curriculum. Institution B was deemed non-faith-based because, although it was founded as faith-based, is not affiliated with CCCCCU, nor does it require Christian courses or mandatory chapel attendance as part of its undergraduate curriculum. Both institutions are located in the South and both participate in intercollegiate athletics as members of the NCAA Division I-FBS.

Non-student-athlete participants were approached in several sections of pre-determined, introductory level science or humanities classes. Each section contained approximately 12-60 subjects. Sampled sections were required to satisfy the core curricula at both universities, thus allowing for a broad representation of college

classification, gender, academic interest, and age. Permission to survey classes from each institution was solicited from their respective departmental chairpersons as well as the individual section instructors. Student-athlete participants were selected from football, men's and women's basketball, baseball, equestrian, women's soccer, men's and women's tennis, volleyball, men's and women's track and field, and men's and women's cross country intercollegiate athletic teams based on the cooperation and permission of their respective athletic administrations and coaches. These sports have been selected because they are NCAA options at both institutions. The primary researcher received completed surveys from 360 participants attending Institution A and 253 participants attending Institution B ($N = 613$).

Instrumentation

The Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ) developed by Plante and Boccacini (1997) was utilized as a primary component of the survey instrument, and permission from the developers of the scale was obtained for this study. Furthermore, demographic information was obtained by the primary researcher: gender, age, ethnicity, institution, academic classification (i.e., freshman, sophomore), current participation in intercollegiate athletics (including sport played, if any), and religious affiliation.

The SCSRFQ evaluates strength of religious faith, regardless of denomination or religion, by using a 10-item survey. Each item was scored by a 4-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). Example items on the SCSRFQ included "My religious faith is extremely important to me," "My relationship with God is extremely important," and "I look to my faith as a source of comfort". Upon

completion of the questionnaire by the participant, each score from the ten items are summed for a cumulative strength of religious faith score; scores can range from 10 as the lowest strength of religious faith to 40 as the highest strength of religious faith. According to analysis by Plante and Boccacini (1997), the SCSRFQ was found to have high internal reliability ($r = .92$). Furthermore, a 1999 study by Plante, Yancey, Sherman, Guertin, and Pardini illustrated the SCSRFQ's significant correlation with other religiosity metrics. The SCSRFQ was correlated with the Duke Religion Index (DRI), developed by Koenig, Parkerson, and Meador (1997), which evaluates religious involvement and also with the Age Universal Religious Orientation Scale developed by Gorsuch and Venable (1983) which assesses intrinsic and extrinsic religiosity. In addition, the SCSRFQ was correlated with the Intrinsic Motivation Scale developed by Hoge (1972), which measured religious motivation.

The primary researcher also included eight additional items to measure how a participant's faith may impact certain choices: the decision to attend the participant's university, athletic performance, academic performance, and decisions regarding tobacco, alcohol, and performance enhancing drug use. Furthermore, intent to use tobacco, alcohol, and performance enhancing drugs during the current school year were also measured. For example, "My faith impacts my decisions regarding athletic performance enhancing drug use" is followed by "I intend to use athletic performance enhancing drugs during the current school year" in the questionnaire. The eight additional items were also scored by a 4-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). A sample of the complete instrument, preceded by the included informed consent form, is found in Appendix B.

Procedures

Approval from the Baylor Institutional Review Board and both Institutions A and B were obtained before data collection. The approval to administer the questionnaire to student-athletes and non-student athletes were requested and obtained from the aforementioned sports' coaches and respective course department chairs. Upon receiving permission to continue from coaches and instructors, surveys were administered in spring, summer, and fall terms. Both institutions operate on a semester system that includes at least two summer terms.

To obtain a non-student athlete sample at Institution A and Institution B, the primary researcher arrived 20 minutes earlier than the designated time and date to administer the questionnaire. A packet containing the informed consent form and the questionnaire was distributed by the primary researcher. Additionally, writing utensils were made available. The primary researcher then read a script reviewing voluntary participation, the purpose of the study, possible benefits and risks, and instructions for completing the questionnaire. If a participant indicated that he or she had completed the SCSRFQ for this study before, their data would not be included in the analysis. Furthermore, if any student-athletes were present in the science and humanities courses, their data was included with the student-athlete questionnaires, provided that they had not already completed the questionnaire. Completed questionnaires were collected in manila envelopes.

To obtain student-athlete samples not already collected in classroom settings at Institution A and Institution B, the primary researcher arrived 20 minutes before the designated date and time of the questionnaire administration in concordance with the

appropriate athletic administrator or coach. A packet containing the informed consent form and the questionnaire was distributed by the primary researcher. Additionally, writing utensils were made available. The primary researcher then read a script reviewing voluntary participation, the purpose of the study, possible benefits and risks, and instructions for completing the questionnaire. If a participant has indicated that he or she had completed the SCSRFQ for this study before, their data would not be included in the analysis. In some instances, the primary researcher was not permitted to administer surveys directly by an athletic administrator or coach; in which case, an athletic administrator or coach was informed by the primary researcher on how to administer the surveys by proxy. Completed questionnaires were collected in a manila envelope.

Design/Analysis

The proposed research will use a descriptive research design with a convenience sample to evaluate the strength of religious faith in student-athletes and non-student athletes attending a faith-based Institution A and non-faith-based Institution B, both of which are NCAA Division I-FBS. The questionnaire format chosen is an appropriate method for collecting data and its reliability has been verified (see Instrumentation). A 2 x 2 x 2 (Gender x Current Athletic Participation x Institution Attended) Analysis of Variance (ANOVA) was employed to determine possible significant differences between gender and student-athletes and non-student athletes attending Institution A and Institution B regarding strength of religious faith. Additionally a logistic regression analysis was utilized to determine possible relationships between strength of faith scores and various personal choices: the decision to attend the participant's university, athletic performance, academic performance, and decisions regarding tobacco, alcohol, and

performance enhancing drug use. Furthermore, intent to use tobacco, alcohol, and performance enhancing drugs during the current school year were also measured. The level of probability to assess significance was set at $p < .05$ for all analyses.

Demographics

Elements of the sample were described with frequency and percentage data for age, gender, ethnicity, institution attended academic classification (i.e., freshman, sophomore), current participation in intercollegiate athletics, sport played, and individual religious affiliation.

Gender, Current Athletic Participation, and Institution Attended

For the 2 x 2 x 2 ANOVA, the independent variables were Gender (i.e., male and female), Current Athletic Participation (i.e., yes and no), and Institution Attended (i.e., Institution A and Institution B). The dependent variable was strength of religious faith, as measured by the SCSRFQ.

Faith-Impacted Decisions

For the logistic regression analysis, there were three categorical variables (Gender, Current Athletic Participation, and Institution Attended) and on continuous variable (Strength of Religiosity). Based on guidance provided by Dr. Jack Tubbs, Chairman of the Department of Statistical Science and Ms. Joyce Cheng, a doctoral candidate in the same department at Baylor University, the responses for items 11-18 were collapsed into a binary format (agree or disagree) because the 4-point Likert scale did not provide sufficient distinction between the four points to fit the logistic regression model (J. Cheng, personal communication, October 22, 2013).

CHAPTER FOUR

Results

The purpose of this chapter was to demonstrate and interpret the findings concerning the strength of religious faith of student-athletes and non-student-athletes attending two NCAA Division I-FBS institutions: one faith-based and one non-faith-based institution. The data provides coaches, sport consultants, and student-athletes with information concerning the significance of religion in a NCAA Division I-FBS environment. Specifically, improved awareness of how a student-athlete's faith impacts their behaviors might lead to improved coaching and recruiting strategies and substance abuse interventions.

This chapter will demonstrate data concerning the demographic factors and descriptive statistics of the research, including the results for each research question. The significance level was set at $\alpha = 0.05$ for all analyses.

Demographics

The characteristics of the sample were demonstrated with descriptive, frequency, and percentage data: age, gender, institution attended, ethnicity, school classification (freshman, sophomore, etc.), current participation in intercollegiate athletics, sport(s) played, and individual religious affiliation were included. Each demographic variable will be illustrated in the following paragraph.

For this study, 613 participants were sampled; Table 1 demonstrates the overall descriptive analysis. The participants had an average age of 19.97 years ($SD = 2.01$). The minimum age was 17 years old, while the maximum age was 33 years old.

Table 1

Descriptive Statistics: Institution, Gender, Athlete Status, and Strength of Religiosity

Institution	Gender	Athlete Status	Frequency (N)	Mean	Standard Error
A	Male	Yes	98	31.37	0.73
		No	62	30.66	0.92
		Total	160	30.99	0.59
	Female	Yes	108	34.08	0.70
		No	92	32.15	0.754
		Total	200	33.12	0.51
	Total	Yes	206	32.70	0.50
		No	154	31.41	0.59
		Total	360	32.05	0.39
B	Male	Yes	70	31.99	0.86
		No	57	27.58	0.96
		Total	127	29.78	0.64
	Female	Yes	55	33.82	0.97
		No	71	30.68	0.86
		Total	126	32.25	0.65
	Total	Yes	125	32.90	0.65
		No	128	29.13	0.64
		Total	253	31.01	0.46
Total (A+B)	Male	Yes	168	31.65	0.57
		No	119	29.12	0.66
		Total	287	30.39	0.44
Total (A+B)	Female	Yes	163	33.95	0.60
		No	163	31.41	0.57
		Total	326	32.68	0.41

The sampling procedure yielded by the procedure a good balance in respect to gender (i.e., male or female), institution type (i.e., A = faith-based, B = non-faith-based), and current intercollegiate athletic participation (i.e., yes or no) as indicated in Figure 1. In respect to gender, 53.2% of the participants were female ($n = 326$), while 46.8% were male ($n = 287$). In regard to institution attended, 58.7% of the participants attended Institution A ($n = 360$) and 41.3% of the participants attended Institution B ($n = 253$). Concerning current intercollegiate athletic participation, 54% of the participants currently competed in intercollegiate athletics ($n = 331$), while 46% of the participants did not currently compete in intercollegiate athletics ($n = 282$).

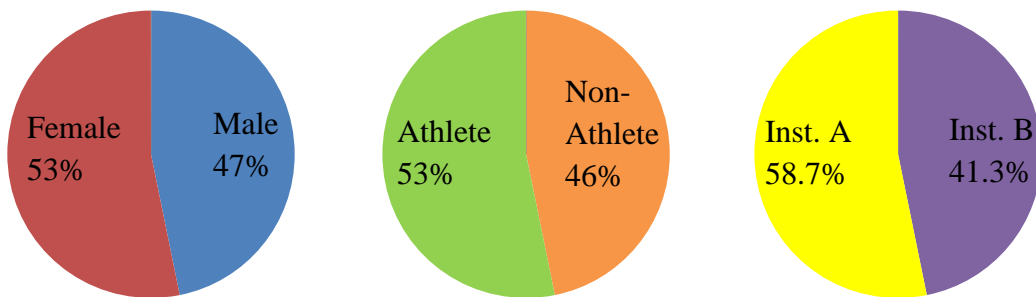


Figure 1. Binary demographic distributions of the sample.

A summary of participant ethnicity is presented in Figure 2. The majority of participants were White/Caucasian ($n = 392$); however, it should be noted that the ethnic breakdown was representative of the populations of Institutions A and B. However, because the research focused on NCAA Division I-FBS athletes, a higher than normal percentage of African Americans was represented; at both institutions, Hispanics typically represent the largest ethnic minority.

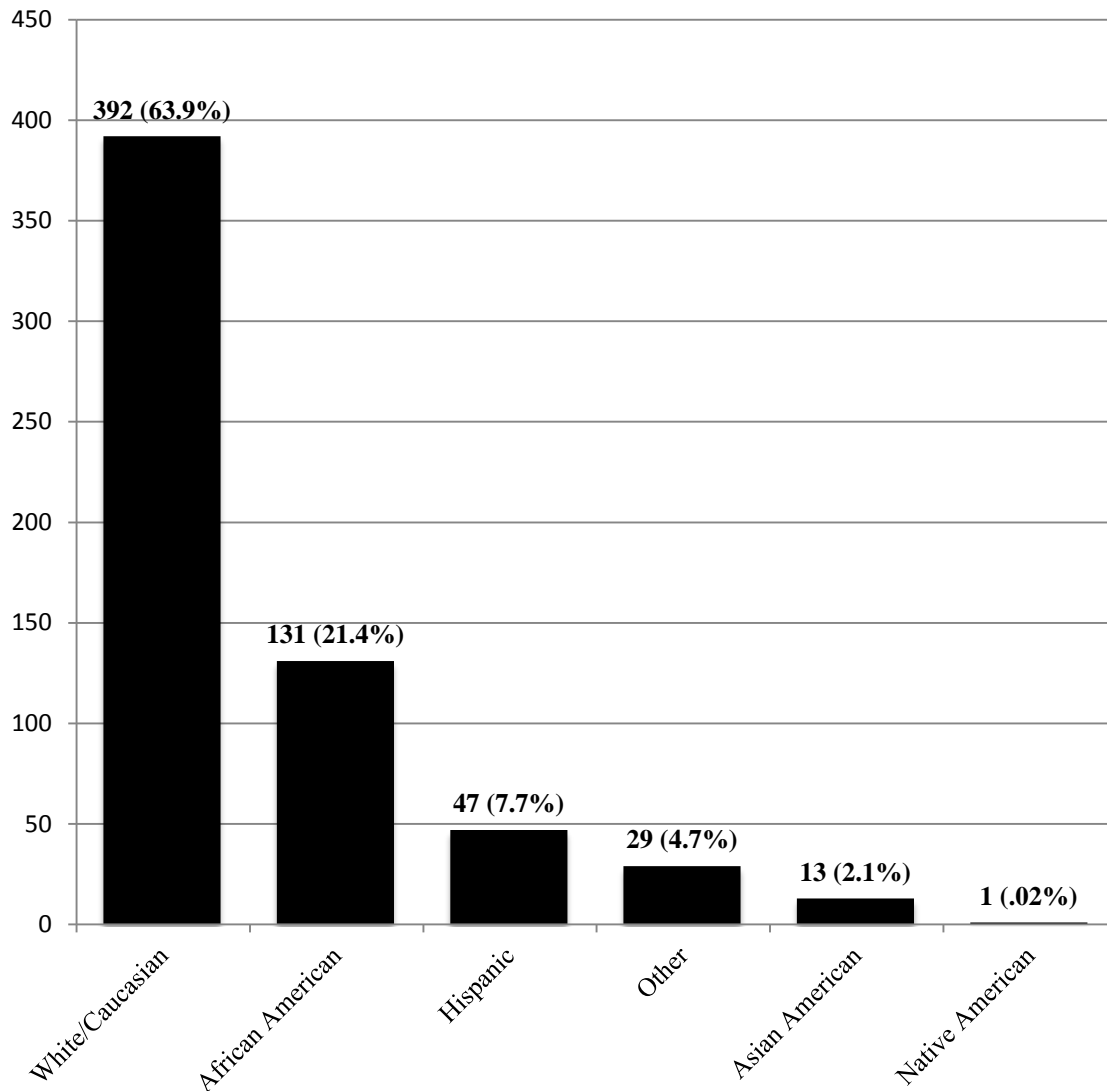


Figure 2. Ethnic distribution of the sample.

The overall sample provided a generally representative mixture of students across the various academic year status as demonstrated in Figure 3. Freshmen represented 34.9% of the participant pool, the largest academic classification ($n = 214$); this was expected due to the introductory nature of the academic course sections that were sampled.

For the student-athlete sample, 13 different sports were represented with an additional category for multi-sport participants. The relative balance between the various

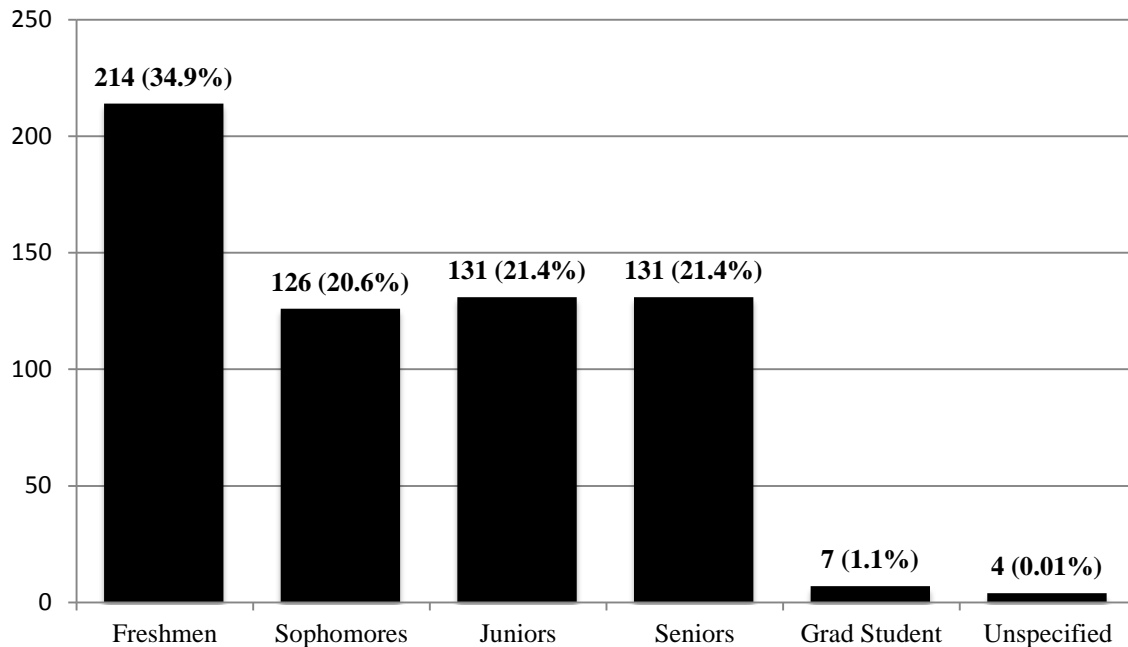


Figure 3. Class year distribution of the sample.

sports as well as the representation from each of the institutions is displayed in Figure 4. In order to create statistical congruence, only sports that were offered at both institutions were surveyed. Football ($n = 62$), women's track and field/cross country ($n = 51$), men's track and field/cross country ($n = 35$), and baseball ($n = 33$) were the most highly represented sports. Cross country runners were included with track because most of those athletes also run long-distance events in track.

Religious affiliations typical of each institution were recorded in the survey and are presented in Figure 5. Protestants ($n = 216$) and non-denominational ($n = 215$) affiliations were the most represented individual religious affiliations. "Other" included Muslim, Buddhist, Jehovah's Witnesses, Greek Orthodox, and those who identified themselves as spiritual without a specific affiliation.

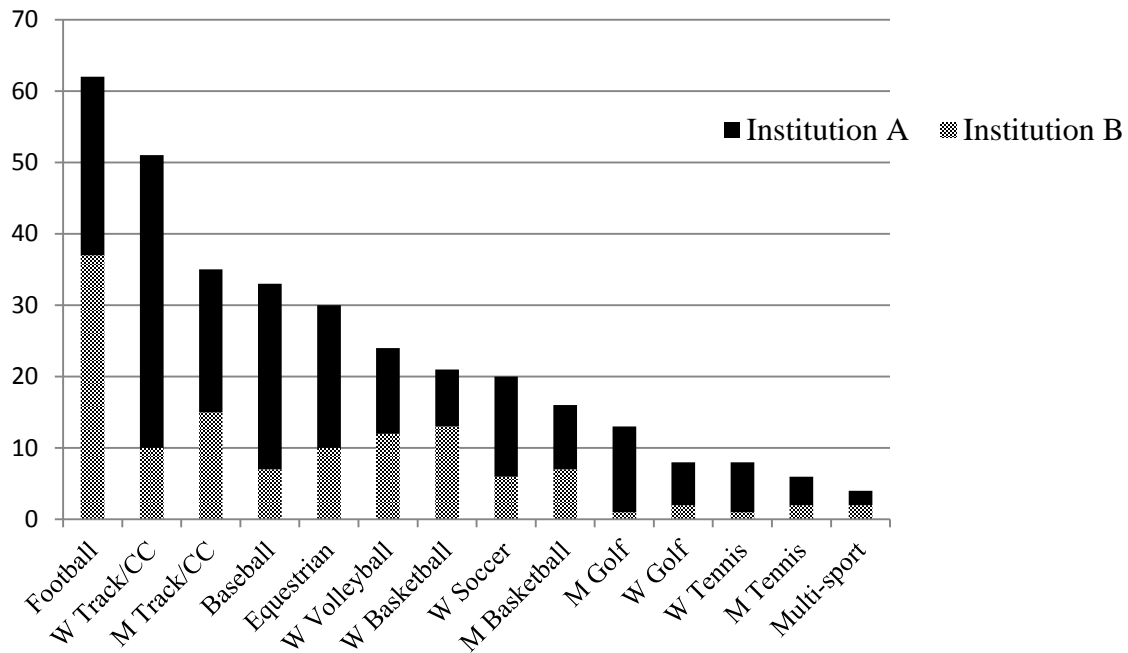


Figure 4. Sport distribution within the student-athlete sample.

Analyses

A 2 x 2 x 2 (Gender x Current Athletic Participation x Institution Attended)

ANOVA was employed to assess possible significant differences in strength of religious faith between participants. Due to the nature of the data, the distribution of the resulting residuals was not quite normal; it did not create a balanced bell-curve. However, the residual by predicted plot showed that the equality of variances assumption was not violated, according to J. Cheng, doctoral student in the Department of Statistical Science at Baylor University (personal communication, October 18, 2013). A summary of the results of this 2 x 2 x 2 ANOVA are presented in Table 2. Possible differences between institutions, student-athletes and non-student-athletes, and genders are discussed in the following section.

Institutional Differences

The first research questions asked what differences exist in the strength of religious faith between student-athletes and non-student-athletes attending a faith-based NCAA Division I-FBS institution and student-athletes and non-student-athletes attending a non-faith-based NCAA Division I-FBS institution. More simply, was there a difference

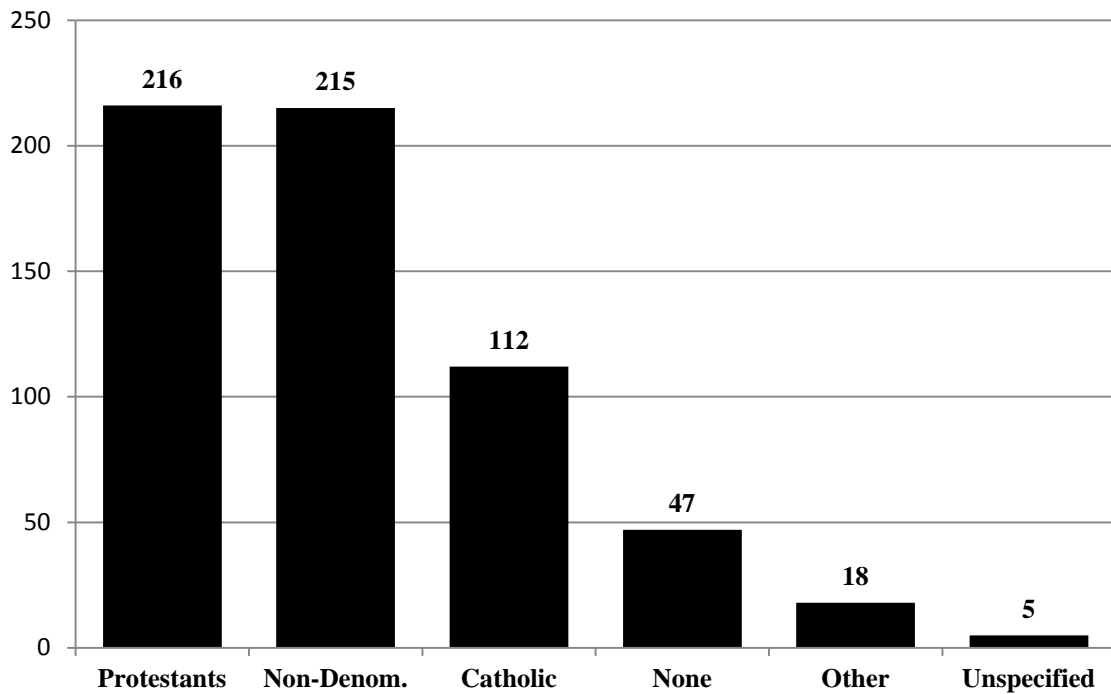


Figure 5. Religious affiliation distribution of the sample.

residual by predicted plot showed that the equality of variances assumption was not violated, according to J. Cheng, doctoral student in the Department of Statistical Science at Baylor University (personal communication, October 18, 2013). A summary of the results of this 2 x 2 x 2 ANOVA are presented in Table 2. Possible differences between institutions, student-athletes and non-student-athletes, and genders are discussed in the following section.

Table 2
ANOVA Summary Data

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	7	2007.464	286.781	5.4948
Error	605	31575.812	52.191	Prob > F
C. Total	612	33583.276		<.0001*

Parameter Estimates

Term	Estimate	Standard Error	t Ratio	Prob > t
Intercept	31.534003	0.300265	105.02	<.0001*
Institution A	0.519278	0.300265	1.73	.0842
Female	1.1484334	0.300265	3.82	.0001*
Institution A*Gender	-0.083961	0.300265	-0.28	.7799
Non-Athlete	-1.266886	0.300265	-4.22	<.0001*
Institution A*Non-Athlete	0.6203371	0.300265	2.07	.0393*
Female*Non-Athlete	-0.001435	0.300265	-0.00	.9962
Inst. A*Fem.*Non-Ath.	-0.317596	0.300265	-1.06	.2906

Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
Institution	1	1	156.09549	2.9908	.0842
Gender	1	1	763.48769	14.6286	.0001*
Institution*Gender	1	1	4.08078	0.0782	.7799
Athlete Status	1	1	929.10653	17.8019	<.0001*
Institution*Athlete Status	1	1	222.76448	4.2682	.0393*
Gender*Athlete Status	1	1	0.00119	0.0000	.9962
Institution*Gender*Athlete Status	1	1	58.39012	1.1188	.2906

Student-Athletes and Non-student Athletes at a Non-faith-based Institution

The second research question asked what differences exist in the strength of religious faith between student-athletes attending a non-faith-based NCAA Division I-FBS institution (Institution B) and non-student-athletes at the same institution. The results showed that student athletes at institution B were significantly different in terms of strength of religious faith compared to their non-student-athlete counterparts, $F(1, 605) = 4.26, p < .05$. Specifically, student-athletes at Institution B reported higher

strength of religious faith ($M = 32.79$) than non-student-athletes ($M = 29.30$) at the same institution.

Student-Athletes and Non-student-Athletes at a Faith-based Institution

The third research question asked what differences exist in the strength of religious faith between student-athletes attending a faith-based NCAA Division I-FBS institution (Institution A) and non-student-athletes at the same institution. Results revealed that student-athletes were not significantly different in terms of strength of faith compared to non-student-athletes at Institution A $F(1, 605) = 2.07 p > .05$. Specifically, student-athletes scored only slightly higher ($M = 32.77$) strength of religious faith than their non-student-athlete counterparts ($M = 31.55$).

Gender Differences

The fourth research question asked what gender differences exist in the strength of religious faith in students and student-athletes attending a faith-based NCAA Division I-FBS institution (Institution A) and students and student-athletes attending a non-faith-based NCAA Division I-FBS institution (Institution B). Results demonstrated a significant difference in strength of religious faith between males and females, regardless of institution or current intercollegiate athletic participation, $F(1, 605) = 14.63, p < .05$. Specifically, females reported higher strength of religious faith ($M = 32.75$) than males ($M = 30.60$).

Faith-Impacted Decisions

The fifth research question sought to discover whether strength of religiosity impacted a participant's decision to attend his or her institution, academic and/or athletic performance, as well as alcohol, tobacco, and performance enhancing drug use intentions.

The results for each faith-impacted decision are detailed below. A logistic regression analysis was employed for all eight faith-impacted decision items using three categorical variables (Gender, Current Intercollegiate Athletic Participation, and Institution) and a continuous variable (Strength of Religiosity). Results are described in terms of probability to agree with each faith-impacted decision item.

Decision to Attend This University. The significant predictors for this item were Institution, Current Intercollegiate Athletic Participation, and Strength of Religiosity. Gender was not a significant predictor for this item.

Table 3 results revealed that students from Institution A are 1.908 times more likely to agree that their faith impacts their decision to attend their university than students from Institution B. Furthermore, student-athletes are 1.789 times more likely to agree that their faith impacts their decision to attend their university than non-student-athletes based on the point estimate in the odds ratio estimates. Additionally, there was a positive relationship between the strength of religiosity score and level of agreement: the probability of agreement increased as the student's religiosity score increased. Furthermore, male student-athletes from Institution A were the most likely to agree with the statement and female non-student-athletes from Institution B were the least likely to agree with the statement.

Athletic and/or Academic Performance. The significant predictors for this item were Institution, Current Intercollegiate Athletic Participation, and Strength of Religiosity as noted in Table 4.

Results of the logistic regression analyses revealed that students from Institution A are 2.100 times more likely to agree that their faith impacts their athletic performance and/or academic performance than students from Institution B based on the point estimate in the odds ratio estimates. Furthermore, student-athletes are 1.996 times more likely to agree with the statement than non-student-athletes. Additionally, there was a positive relationship between the strength of religiosity score and level of agreement: the probability of agreement increased as the student's religiosity score increased. Furthermore, male student-athletes from Institution A were the most likely to agree with the statement and female non-student-athletes from Institution B were the least likely to agree with the statement.

Table 3
Faith Impact on Decision to Attend University

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-6.8084	0.6493	109.9381	<.0001
Institution A	1	0.6458	0.2008	10.3460	.0013
Female	1	-0.2132	0.2050	1.0810	.2985
Non-Athlete	1	-0.5814	0.2040	8.1208	.0044
Strength of Religiosity	1	0.2185	0.0198	121.8713	<.0001

(table continues)

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Institution A vs. B	1.908	1.287	2.827
Female vs. Male	0.808	0.541	1.208
Non-Athlete vs. Athlete	0.559	0.375	0.834
Strength of Religiosity	1.244	1.197	1.293

Table 4

Faith Impact on Athletic/Academic Performance

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-8.0770	0.7438	117.9328	<.0001
Institution A	1	0.7421	0.2178	11.6038	.0007
Female	1	-0.2809	0.2228	1.5902	.2073
Non-Athlete	1	-0.6914	0.2224	9.6693	.0019
Strength of Religiosity	1	0.2695	0.0232	135.4537	<.0001

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Institution A vs. B	2.100	1.370	3.219
Female vs. Male	0.755	0.488	1.168
Non-Athlete vs. Athlete	0.501	0.324	0.774
Strength of Religiosity	1.309	1.251	1.370

Decisions Regarding Alcohol Use. Table 5 results revealed that students from Institution A were 2.196 times more likely to agree that their faith impacts their decisions regarding alcohol than students from Institution B based on the point estimate in the odds ratio estimates. Additionally, there was a positive relationship between strength of religiosity scores and level of agreement: the probability of agreement increased as the student's religiosity score increased. Additionally, male non-student-athletes from Institution A were the most likely to agree with the statement and female student-athletes from Institution B were the least likely to agree with the statement.

Intent to Use Alcohol. Results, as summarized in Table 6, revealed that students from Institution B were 3.968 times more likely to agree that they intend to use alcohol during the school year than students from Institution A based on the point estimate in the odds ratio estimates. Furthermore, non-student-athletes were 1.507 times more likely to agree with the statement than student-athletes. There was not significant negative relationship between strength of religiosity scores and level of agreement.

Decisions Regarding Tobacco Use. Regression analysis findings related to decisions regarding tobacco use are summarized in Table 7. Results revealed that students at Institution A are 2.574 times more likely to agree that their faith impacts their decisions regarding tobacco use than students at Institution B based on the point estimate in the odds ratio estimates. Furthermore, female non-student-athletes from Institution A were the most likely to agree with the statement and male student-athletes from Institution B were the least likely to agree with the statement. Additionally, there was a positive relationship between strength of religiosity scores and level of agreement: the probability of agreement increased as the student's religiosity score increased.

Table 5

Faith Impact on Alcohol Decisions

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-7.6887	0.6810	127.4532	<.0001
Institution A	1	0.7866	0.1994	15.5582	<.0001
Female	1	-0.2746	0.2032	1.8274	.1764
Non-Athlete	1	0.2020	0.2018	1.0018	.3169
Strength of Religiosity	1	0.2195	0.0201	119.4118	<.0001

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Institution A vs. B	2.196	1.486	3.246
Female vs. Male	0.760	0.510	1.132
Non-Athlete vs. Athlete	1.224	0.824	1.818
Strength of Religiosity	1.245	1.197	1.295

Table 6
Intent to Use Alcohol During the Current School Year

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	2.1138	0.4251	24.7242	<.0001
Institution A	1	-1.3801	0.1792	59.2936	<.0001
Female	1	0.0523	0.1783	0.0861	.7692
Non-Athlete	1	0.4103	0.1776	5.3376	.0209
Strength of Religiosity	1	0.0122	0.0122	14.9978	<.0001

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Institution A vs. B	0.252	0.177	0.357
Female vs. Male	1.054	0.743	1.495
Non-Athlete vs. Athlete	1.507	1.064	2.135
Strength of Religiosity	0.954	0.931	0.977

Intent to Use Tobacco. As displayed in Table 8, results revealed that males were 6.173 times more likely to agree that they intend to use alcohol during the school year than females based on the point estimate in the odds ratio estimates. Furthermore, non-student athletes were 2.124 times more likely to agree with the statement than student-athletes. There was not a significant relationship between strength of religiosity scores and level of agreement.

Decisions Regarding Performance Enhancing Drug Use. Logistic regression analyses results revealed that students at Institution A were 5.568 times more likely to agree that their faith impacts their decisions regarding performance enhancing drug use than students at Institution B based on the point estimate in the odds ratio estimates (see Table 9). Additionally, there was a positive relationship between strength of religiosity scores and level of agreement: the probability of agreement increased as the student's religiosity score increased.

Table 7
Faith Impact on Decisions Regarding Tobacco

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-6.2725	0.6021	108.5436	<.0001
Institution A	1	0.9454	0.1936	23.8578	<.0001
Female	1	0.3215	0.1914	2.8225	.0930
Non-Athlete	1	0.0791	0.1920	0.1698	.6803
Strength of Religiosity	1	0.1584	0.0171	85.4003	<.0001

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Institution A vs. B	2.574	1.761	3.761
Female vs. Male	1.379	0.948	2.007
Non-Athlete vs. Athlete	1.082	0.743	1.577
Strength of Religiosity	1.172	1.133	1.212

Intent to Use Performance Enhancing Drugs. A summary of findings related to PED intended use are provided in Table 10. Results revealed that males were 5.025 times more likely to agree that they intended to use performance enhancing drugs during the current school year than females based on the point estimate in the odds ratio estimates. Furthermore, student-athletes were 4.717 times more likely to agree that they intended to use performance enhancing drugs during the current school year than non-student-athletes. There was not a significant relationship between strength of religiosity score and level of agreement.

Table 8
Intent to Use Tobacco During the Current School Year

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-1.0648	0.5497	3.751	.0527
Institution A	1	0.1968	0.2604	0.5708	.4499
Female	1	-1.8211	0.3071	35.1675	<.0001
Non-Athlete	1	0.7533	0.2623	8.2497	.0041
Strength of Religiosity	1	-0.0220	0.0160	1.8961	.1685

(table continues)

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Institution A vs. B	1.217	0.731	2.028
Female vs. Male	0.162	0.089	0.295
Non-Athlete vs. Athlete	2.124	1.270	3.552
Strength of Religiosity	0.978	0.948	1.009

Table 9
Faith Impact on Decisions Regarding PEDs

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-6.8606	0.6203	122.3227	<.0001
Institution A	1	1.7171	0.2050	70.1326	<.0001
Female	1	-0.0198	0.2037	0.0094	.9226
Non-Athlete	1	0.1625	0.2045	0.6308	.4270
Strength of Religiosity	1	0.1793	0.0177	102.6800	<.0001

(table continues)

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Institution A vs. B	5.568	3.726	8.322
Female vs. Male	0.980	0.658	1.462
Non-Athlete vs. Athlete	1.176	0.788	1.757
Strength of Religiosity	1.196	1.156	1.239

Table 10

Intent to Use PEDs During the Current School Year

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-4.8809	1.6371	8.8892	.0029
Institution A	1	0.3058	0.5661	0.2919	.5890
Female	1	-1.6160	0.6639	5.9246	.0149
Non-Athlete	1	-1.5517	0.7676	4.0862	.0432
Strength of Religiosity	1	0.0609	0.0480	1.6139	.2039

(table continues)

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Institution A vs. B	1.358	0.448	4.118
Female vs. Male	0.199	0.054	0.730
Non-Athlete vs. Athlete	0.212	0.047	0.954
Strength of Religiosity	1.063	0.967	1.168

CHAPTER FIVE

Discussion

Following a review of the literature, research focusing on the religious faith of student-athletes and non-student-athletes at Division I-FBS institutions was scant, and no research had been reported including faith-based Division I-FBS institutions. Furthermore, little research exists regarding how religiosity may be related to alcohol, tobacco, and performance enhancing drug use among intercollegiate athletes. Therefore, the purpose of this study was to evaluate and compare the religiosity of student-athletes and non-student-athletes at faith-based and non-faith based NCAA Division I-FBS institutions. A comparison of religiosity between institutions, gender, and student-athlete status was made along with an exploration of the relationship between the religiosity of these students and their intentions to use alcohol, tobacco or performance enhancing drugs.

The first research question asked what differences exist in the strength of religious faith between student-athletes and non-student-athletes attending a faith-based NCAA Division I-FBS institution and student-athletes and non-student-athletes attending a non-faith-based NCAA Division I-FBS institution. Analyses for this study revealed that, while students at a faith-based institution (Institution A) scored slightly higher on the SCSRFQ than students at a non-faith-based institution (Institution B), there was not a statistically significant difference between the two sub-populations. Several hypotheses may explain this outcome. While Institution A is deemed faith-based for this study, based on its affiliation with the CCCU, the institution does not require that its students sign or abide by a statement of faith, which greatly impacts the type of students who

choose to attend, based on religious lifestyle as a priority. Furthermore, Institution A is a relatively large private institution that offers the variety of lifestyle and academic options usually afforded by larger public institutions. Subsequently, despite its faith-based mission, non-Christian students, students of no faith, or students who were indifferent in regard to faith as a part of their higher educational experience may still be attracted to its environment. Furthermore, while Institution B is no longer a faith-based institution, its secularization was very recent in relation to its length of existence. Subsequently, students looking for a faith-based college experience may still view Institution B as an option based on its history or simply may not know that the university is no longer faith-based.

The second research question sought to determine what differences exist in the strength of religious faith between student-athletes attending a non-faith-based NCAA Division I-FBS institution and non-student-athletes at the same institution. Student-athletes at Institution B showed significantly higher strength of religious faith than non-student-athletes at the same institution. Specifically, student-athletes at Institution B reported higher strength of religious faith ($M = 32.79$) than non-student-athletes ($M = 29.30$) at the same institution. These findings reinforce prior research showing that student-athletes are typically more religious than their non-student-athlete counterparts at non-faith-based institutions. For example, in a study conducted by Storch et al. (2001) that utilized the DRI, male and female student-athletes were found to have a higher degree of religiosity than male non-student-athletes. Furthermore, a follow-up study of 226 undergraduate students at the University of Florida using a short form of the SCSRFQ, Higher strength of religious faith in student-athletes was reaffirmed by Storch

in a follow up study using a sample of nearly 250 undergraduate students (Storch et al., 2004). Additionally, Bell et al. (2009) found that intercollegiate student-athletes at a non-faith based Division III institution had a higher strength of religious faith than their non-student-athlete counterparts using the SCSRFQ. Although ethnicity was not used as an independent variable in this present investigation, it may deserve consideration as a potential confounding variable as 60% of student-athletes surveyed at Institution B were ethnic minorities, compared to only 20% of the non-student-athletes.

Similarly, the third research question sought to determine what differences exist in the strength of religious faith between student-athletes attending a faith-based NCAA Division-I institution and non-student-athletes at the same institution. Analyses did not reveal a significant difference in the strength of religious faith between student-athletes at Institution A and their non-student-athlete counterparts. This outcome contrasts prior research findings where student-athletes at a faith-based Division III institution demonstrated a higher strength of religiosity than their student-athlete counterparts based on results from the SCSRFQ (Bell et al., 2009). Additionally, while there was not a statistically significant difference, student-athletes scored slightly higher ($M = 32.77$) on strength of religious faith than their non-student-athlete counterparts ($M = 31.55$). This outcome may be related to Institution A's more relaxed approach to faith-based identity compared to other faith-based institutions. For example, Brigham Young University (BYU), which is affiliated with The Church of Jesus Christ of Latter-day Saints, requires each student to obtain an endorsement from the local church he or she attends (Brigham Young University, 2013). Additionally, BYU may strictly enforce a violation of its faith-based honor code. Brandon Davies, a BYU basketball player, was suspended for having

sexual relations with his girlfriend (Saleh, 2011). Institution A's mission is faith-based; however, students are not required to provide evidence of any church affiliation or related conduct. It is also important to note that while Institution A was deemed faith-based due to its affiliate status with the CCCU, it is not a full member. Full members must hire Christians for all full-time faculty and administrative positions; Institution A does not fully adhere to this standard.

The fourth research question investigated whether gender differences exist in the strength of religious faith in students and student-athletes attending a faith-based NCAA Division I-FBS institution and students and student-athletes attending a non-faith-based NCAA Division I-FBS institution. Results demonstrated a significant difference in strength of religious faith between males and females, regardless of institution or current intercollegiate athletic participation. Specifically, females reported higher strength of religious faith ($M = 32.75$) than males ($M = 30.60$). This outcome is consistent with prior research on the relationship between religion and gender (Jones, St. Peter, Fernandes, Herrenkohl, Kosterman, & Hawkins, 2011; Maselko & Kubzansky, 2006). For example, females may attend church services more frequently than males (Batson, Schoenrade, & Ventis, 1993) and female may be more likely to read their Bibles and pray than males (Davis & Smith, 1991). Bell, et al. (2009) also noted that females had higher strength of faith than males, regardless of whether they were an intercollegiate athlete or whether they attended a faith-based on non-faith-based institution.

Finally, the fifth research question asks how strength of religiosity impacts decision to attend the institution, academic and/or athletic performance, as well as alcohol, tobacco, and performance enhancing drug use intentions and use or non-use in

student-athletes and non-student athletes. The results for each faith-impacted decision item are discussed below.

Decision to Attend This University

Institution, Current Intercollegiate Athletic Participation, and Strength of Religiosity were found to be significant predictors of this item. The results revealed that students from Institution A were 1.908 times more likely to agree that their faith impacts their decision to attend their university than students from Institution B. Furthermore, student-athletes were 1.789 times more likely to agree that their faith impacts their decision to attend their university than non-student-athletes. Additionally, there was a positive relationship between the strength of religiosity score and level of agreement: the probability of agreement increased as the student's religiosity score increased.

Male student-athletes from Institution A also were the most likely to agree with the statement and female non-student-athletes from Institution B were the least likely to agree with the statement. Interestingly, students at Institution A were significantly more likely to agree that their faith impacted their decision to attend the university than students at Institution B, given that there was not a significant difference in strength of religiosity scores between the two institutions. By contrast, the student-athletes' significantly higher likelihood to agree compared to non-student-athletes reinforces prior research suggesting that student-athletes at non-faith-based institutions demonstrate higher levels of religiosity than non-student-athletes (as noted in the discussion of the first research question, the primary researcher presumes that Institution A may feel and operate more like a non-faith-based institution).

Athletic and/or Academic Performance

Institution, Current Intercollegiate Athletic Participation, and Strength of Religiosity were significant predictors of this item. Results revealed that students from Institution A were 2.100 times more likely to agree that their faith impacts their athletic performance and/or academic performance than students from Institution B. Furthermore, student-athletes were 1.996 times more likely to agree with the statement than non-student-athletes. Additionally, there was a positive relationship between the strength of religiosity score and level of agreement: the probability of agreement increased as the student's religiosity score increased. Moreover male student-athletes from Institution A were the most likely to agree with the statement and female non-student-athletes from Institution B were the least likely to agree with the statement. Similar to the discussion about decision to attend the university, the primary researcher found it interesting that students at Institution A were significantly more likely to agree that their faith impacted their decision to attend the university than students at Institution B, given that there was not a significant difference in strength of religiosity scores between the two institutions. And again, by contrast, the student-athletes' significantly higher likelihood to agree compared to non-student-athletes reinforces prior research suggesting that student-athletes at non-faith-based institutions demonstrate higher levels of religiosity than non-student-athletes (as noted in the discussion of the first research question, the primary researcher presumes that Institution A may feel and operate more like a non-faith-based institution).

Decisions Regarding Alcohol Use

Results revealed that students from Institution A were 2.2 times more likely to agree that their faith impacts their decisions regarding alcohol than students from Institution B. Additionally, there was a positive relationship between strength of religiosity scores and level of agreement: the probability of agreement increased as the student's religiosity score increased. Furthermore, male non-student-athletes from Institution A were the most likely to agree with the statement and female student-athletes from Institution B were the least likely to agree with the statement. Thus far, a consistent theme has emerged: students at Institution A demonstrate a significantly higher level of agreement that their faith has an impact on personal choices than students at Institution B, despite not having significantly different strength of religiosity scores and that theme continues in this discussion.

Intent to Use Alcohol

Results revealed that students from Institution B were 3.968 times more likely to agree that they intend to use alcohol during the school year than students from Institution A. Furthermore, non-student-athletes were 1.507 times more likely to agree with the statement than student-athletes. There was not significant negative relationship between strength of religiosity scores and level of agreement. These results coincide with the results and discussion about decisions regarding alcohol.

In all, it appears (based on the results) that if students at Institution A were more likely to agree that their faith impacts their decision to use alcohol than students from Institution B, then they were also less likely to use alcohol than students at Institution B. Additionally, it is logical that student-athletes were most likely to agree with this item,

given that student-athletes at Institution B have demonstrated significantly higher strength of religiosity scores than their non-student-athlete counterparts and although not significantly different, student-athletes at Institution A scored slightly higher than their non-student-athlete counterparts. Finally, student-athletes may be less likely to use alcohol because of the potential adverse effects on their bodies and subsequently on their on-field performance. However, several prior studies have found the opposite with student-athletes drinking more than non-student-athletes (Grossbard, Hummer, LaBrie, Pederson, & Neighbors, 2009; Leichliter, Meilman, Presley, & Cashin, 1998).

Decisions Regarding Tobacco Use

Results revealed that students at Institution A were 2.574 times more likely to agree that their faith impacts their decisions regarding tobacco use than students at Institution B. Furthermore, female non-student-athletes from Institution A were the most likely to agree with the statement and male student-athletes from Institution B were the least likely to agree with the statement. Additionally, there was a positive relationship between strength of religiosity scores and level of agreement: the probability of agreement increased as the student's religiosity score increased. Interestingly, students at Institution A were significantly more likely to agree that students at Institution B, given the absence of significant differences in the strength of religious faith scores between the two institutions. Given the negative stigma surrounding females who use tobacco, it was not surprising that females were most likely to agree (Bayer & Stuber 2006).

Intent to Use Tobacco

Results revealed that males were 6.173 times more likely to agree that they intend to use tobacco during the school year than females. Furthermore, non-student athletes

were 2.124 times more likely to agree with the statement than student-athletes. There was not a significant relationship between strength of religiosity scores and level of agreement. It was not surprising that males were more likely to agree, given the negative stigma surrounding females who use tobacco. Additionally, it was not surprising that student-athletes were the least likely to agree, given the negative effects tobacco may have on their bodies and subsequently their performance on the field.

Decisions Regarding Performance Enhancing Drug Use

Results revealed that students at Institution A were 5.568 times more likely to agree that their faith impacts their decisions regarding performance enhancing drug use than students at Institution B. Additionally, there was a positive relationship between strength of religiosity scores and level of agreement: the probability of agreement increased as the student's religiosity score increased. The trend of students at Institution A demonstrating significantly higher level of agreement than their Institution B counterparts continues, despite the absence of significant differences in strength of religious faith scores noted in the prior ANOVA analyses.

Intent to Use Performance Enhancing Drugs

Results revealed that males were 5.025 times more likely to agree that they intended to use performance enhancing drugs during the current school year than females based on the point estimate in the odds ratio estimates. Furthermore, student-athletes were 4.717 times more likely to agree that they intended to use performance enhancing drugs during the current school year than non-student-athletes. There was not a significant relationship between strength of religiosity score and level of agreement. There was not a significant relationship between strength of religiosity score and level of

agreement. The findings were consistent with prior research regarding females and religiosity (Bell et al., 2009). It is not surprising that student-athletes were the most likely to agree given that they demonstrated higher levels of strength of religiosity than their non-student-athlete counterparts. It should be noted that only 2.4% of participants agreed or strongly agreed that they intended to use PEDs during the current school year, which may magnify the extreme statistical differences.

Conclusion

While the results did not demonstrate a significant difference in strength of religiosity between students at a faith-based NCAA Division I-FBS institution (Institution A) and students at a non-faith-based Division I-FBS institution (Institution B), it was intriguing that students at Institution A were significantly more likely to agree that their faith impacted decisions regarding where they attend college, how they perform athletically and/or academically as well as decisions regarding alcohol, tobacco, and performance enhancing drug use. Furthermore, students at Institution A were significantly less likely to use alcohol, tobacco, and performance enhancing drugs during the current school year, compared to students at Institution B. These conflicting results may be attributed to stricter policies regarding risky behaviors at Institution A. For example, Institution A does not allow students to consume alcohol on campus or at any university-related events.

The results demonstrated that student-athletes at Institution B have significantly higher strength of religious faith than non-student-athletes attending Institution B, thus reaffirming prior research. By contrast, there was not a significant difference in strength of religious faith between the student-athletes and non-student-athletes at Institution A,

conflicting with prior research. In regard to gender differences, the results reaffirmed prior research: females demonstrate higher levels of religious faith than males; in this case, regardless of institution type or student-athlete or non-student-athlete status.

Overall, the results reaffirm and accentuate the importance of religion in student-athletes' lives. Student-athletes showed higher degree of religiosity than their non-student-athlete counterparts and were significantly more likely to agree that their faith impacted their decisions regarding their college choice and their athletic and/or academic performance. These findings should serve as a reminder for university administrators, athletic personnel, sports psychologists, sport chaplains, and head coaches to be aware of the important role religion may play in where a student-athlete chooses to compete and the quality of his or her performance on the field or in the classroom. Such awareness could improve how a myriad of sport professionals integrate knowledge of student-athlete religiosity into all aspects of the college athletic program, including: student-athlete recruitment, physical and mental athletic training, game day operations, and intervention with regard to alcohol and PED use violations. Specifically, coaches could use such knowledge to better recruit athletes with a religiosity most suited for the institution and coaching staff, and university mission.

Ultimately, it is apparent from the results of this study that religiosity plays an important role in the overall health of a student-athlete. Nevertheless, most academic resources tend to focus on athletes' physical health. Perhaps religiosity awareness should be as important as weight-training and tutoring in the holistic sense of student-athlete well-being, rather than be viewed by coaches and sport administrators as a secondary student-athlete service best suited for a sports chaplain serving in a role that is peripheral

to the athletic department. Further, the results, if discussed in a classroom setting by educators, could increase student and student-athlete awareness of the role that religiosity plays in their lives. Increased awareness may improve how athletes perform on the field, in the classroom, and how to better cope with victory and defeat.

Suggestions for Future Research

Given the finding of this present study, the following recommendations for future research are proposed:

1. Future research on strength of religious faith among different types of faith-based Division I-FBS institutions, particularly those of different denominations (Mormon, Catholic, Baptist, etc.) could reveal additional layers to the role religion plays in the lives of student-athletes within various faith-based religious institutions.
2. In this study, while significant differences in strength of religiosity were not found, significant differences in decisions in regard to faith were revealed. How might university policies or environment mitigate this homogeneity of strength of religious faith between students at Institution A and Institution B?
3. Given the prominence of religion in athletes' lives, there were a number of student-athletes participants who identified as having no faith. What is it like being an atheist or agnostic in an athletic culture that may be significantly influenced with religion and/or religious practices?
4. As noted in the review of literature, many religions promote physical wellness. Do student-athletes view performance enhancing drugs as

healthy or harmful in the endeavor for physical health and optimal performance, despite athletic policies against such use?

5. Similarly, how do college student athletes perceive marijuana use or other recreational drugs in the context of their sport and their faith, despite policies against its use and the growing movement to make it legal?
6. What ways might ethnicity serve as a mitigating or moderating factor in the religiosity of intercollegiate athletes and why?
7. How does a faith-based or non-faith-based institutional environment effect the religiosity of intercollegiate athletes?

APPENDICES

APPENDIX A

COVER LETTER

An Analysis of the Strength of Religious Faith of Student-Athletes and Non-student-Athletes at NCAA Division I-FBS Institutions

Thank you for participating in this study. The information you provide may benefit you by raising awareness of faith and its role in your life. Furthermore, collected data could help coaches, sports consultants, and other relevant athletic personnel better understand the role of faith in athletes' lives and improve the way in which they communicate and relate to the athletes.

You have been selected for this study because you are an undergraduate student. For this research you will be asked to answer questions regarding the role of faith in your life. The questions you are about to answer are very important to this research; the survey will take approximately 5-10 minutes to complete.

There are no known risks to completing the questionnaire. Participation in this study is completely voluntary; at any time you may refuse or discontinue participation without penalty. Your confidentiality is of the utmost importance. The questionnaire will not require any information that could be used to identify you as an individual. Collected questionnaires and any subsequent electronic data will be kept in a secure location.

Only you can decide your participation in this study. Your completion and submission of the survey will serve as your active consent indicating that you have decided to participate in this study entitled "An Analysis of the Strength of Religious Faith of Student-Athletes and Non-Student-Athletes at NCAA Division I-FBS Institutions" having read the information provided in this document.

Thank you for your consideration of participation in this study. You may ask questions any time during or after the conclusion of the survey.

Consent: "Having read the procedures described above, my completion of the attached survey indicates my informed consent".

Sincerely,

Jonathan Evans
Graduate Student, Baylor University
One Bear Place #97313
Waco, Texas 76798-7313
(254) 744-5632

Dr. Jeffrey Petersen
Sport Management Graduate Program Director
One Bear Place #97313
Waco, Texas 76798-7313
(254) 710-4007

Please direct all inquiries to Jonathan Evans, graduate student at Baylor University or contact Dr. Jeffrey Petersen, faculty advisor of the project. If you have any questions regarding your rights as a participant, or any other aspect of the research as it relates to you as a participant, please contact the Baylor University Committee for Protection of Human Subjects in Research, Dr. Dave Schlueter, Baylor University, One Bear Place # 97368, Waco, TX 76798-7368. Dr. Dave Schlueter may also be reached at (254) 710-6920.

APPENDIX B

Religiosity Survey

Please follow these instructions:

1. Answer each question honestly and sincerely.
2. DO NOT put your name on the questionnaire.

If you have previously completed this survey or do not wish to participate, please check this box: []. Your data will not be used if this box is checked.

QUESTIONS

1. **Gender (circle one):** Male Female
2. **What is your age?** _____
3. **What is your college classification?**
 Freshman Sophomore Junior Senior Grad-Student
4. **Ethnicity (circle one):**
 - White/Caucasian
 - Hispanic
 - African-American
 - Asian-American
 - Native-American
 - Other (specify): _____
5. **Do you participate in NCAA intercollegiate athletics?** Yes No
 - **If yes, what NCAA intercollegiate sport or sports do you play?**

6. **What is your religious affiliation (circle one)?**
 - Protestant
 - Catholic
 - Non-denominational Christian
 - No religious affiliation
 - Other (specify): _____

Please answer the following questions about religious faith. Indicate the level of agreement or disagreement for each statement. Please note that 1 = strong DISAGREEMENT and 4 = strong AGREEMENT.

1. My religious faith is extremely important to me.

- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
2. I pray daily.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
3. I look to my faith as a source of inspiration.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
4. I look to my faith as providing meaning and purpose in my life.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
5. I consider myself active in my faith or church.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
6. My faith is an important part of who I am as a person.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
7. My relationship with God is extremely important.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
8. I enjoy being around others who share my faith.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
9. I look to my faith as a source of comfort.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
10. My faith impacts many of my decisions.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
11. My faith impacted my decision to attend this university.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
12. My faith impacts my performance as an athlete and/or my academic performance.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
13. My faith impacts my decisions regarding alcohol use or non-use.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
14. I intend to use alcohol during the current school year.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
15. My faith impacts my decisions regarding tobacco use or non-use.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
16. I intend to use tobacco during the current school year.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
17. My faith impacts my decisions regarding athletic performance enhancing drug use or non-use.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
18. I intend to use athletic performance enhancing drugs during the current school year.
- | | | | | | | |
|--|--------------------------|----------|----------|----------|----------|-----------------------|
| | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|--------------------------|----------|----------|----------|----------|-----------------------|

APPENDIX C

Data Collection Script

Good morning/afternoon,

My name is Jonathan Evans and I am a second year graduate student at Baylor University, pursuing a Master' Degree in Sport Management. I am completing my thesis entitled, "An Analysis of Religious Faith of Student-Athletes and Non-Student-Athletes at NCAA Division I-FBS Institutions." Coach or Professor _____ granted me permission to invite you to participate in this study by completing a brief survey. The purpose of this study is to evaluate and compare the strength of religious faith of student-athletes and non-student-athletes at two NCAA Division I-FBS institutions, one faith-based and one non-faith-based. Your feedback would be most appreciated. Results of this study may help improve communication between athletes and coaches or other athletic support personnel. Furthermore, participation in this study may raise your awareness of faith (or lack thereof) and its role in your life. There are no known risks from participating in this survey.

You have been given a consent form and the religiosity questionnaire. Please read the consent form before completing the questionnaire. Remember, participation is voluntary; take a moment to decide if you would like to continue. If you decide to participate, you can withdraw at any time. If you have any questions about the words or concepts, you may ask questions at any time. All information collected from the consent form and questionnaire will be anonymous and will remain confidential. Collected data will be kept in a locked file cabinet. Remember, there is a front and back side to the questionnaire; it should take 5-10 minutes to complete.

Once you have completed the questionnaire, please put down your writing utensil and look up. This will indicate that you have completed the questionnaire. Please note that the survey is two-sided. Once everyone has completed the questionnaire, I will pass around a manila folder; place the completed questionnaire in the manila folder. The consent form is yours to keep in case you have any questions or concerns about the research. If you do not want the consent form, you may place them in the manila folder, as well. Are there any questions? Please read the directions and answer questions honestly and sincerely. You are free to begin.

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