

An Analysis of Student-Athlete and Non-Student-Athlete Religiosity at the Division I FBS Level

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Abstract

The relationship between sport and religion has manifested itself within a wide spectrum of faiths spanning millennia from the ancient to the contemporary. This traces back to the inception of the Ancient Olympic Games to the pregame religious rituals practiced by today's athletes. The advent of the 24-hour sports media coverage cycle has magnified the element of religiosity in sport, often attracting widespread debate, as with Brigham Young University's suspension of a player for breaking university-mandated religious expectations or with the outspoken nature of Heisman Trophy winner and devout Christian, Tim Tebow. Much research has been done on the connection between religiosity and various aspects of well-being, such as mortality rates, ability to cope with depression, and aversion to risky-behaviors like drug and alcohol use. However, only recently have studies emerged focusing on the religiosity of the individual athlete (Bell, 2007; Storch, Roberti, Bravata, & Storch, 2004). Despite the rising profile of NCAA Division I athletic programs, very little research has been done on the religiosity of their student-athletes. This study assessed and compared the religiosity of student-athletes and non-student athletes at faith-based (FB) and non-faith-based (NFB) NCAA Division I-FBS institutions using the Santa Clara Strength of Religious Faith Questionnaire (Plante & Boccacini, 1997). Representative samples from two institutions ($N = 613$) were used to compare religiosity upon the factors of institution attended, gender, and current athletic participation using a 2x2x2 ANOVA. Results yielded significant differences in religiosity based on gender, but no significant differences in religiosity were found between institutions. However, student-athletes at FB institutions were significantly more religious than the non-student-athletes.

Introduction

The connection between religion and sports is evident from ancient times and continues through today's 24-hour sports media coverage cycle. As far back as 776 BC, the Ancient Olympic Games in Greece featured athletes who sought the favor of the god Zeus through athletic performance (Obare, 2000). In Central America, Aztec religious texts reference ulama, an ancient Mesoamerican sport played 500 to 1000 years ago involving a rubber ball being struck thorough a hoop that often included human sacrifice (Fox, 2006). Muhammad encouraged swimming, archery, and horseback riding in the Muslim religious text, the Hadith (Ismail, 2001). Christianity and the New Testament feature several references to sport, foot-racing and boxing in particular. 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. Everyone who competes in the games goes into strict training. They do it to get a crown that will not last, but we do it to get a crown that will last forever. Therefore I do not run like someone running aimlessly; I do not fight like a boxer beating the air. No, I strike a blow to my body and make it my slave so that after I have preached to others, I myself will not be disqualified for the prize (I Corinthians 9:24-27, New International Version).

Another instance of Paul's New Testament sport imagery reads "Similarly, anyone who competes as an athlete does not receive the victor's crown except by competing according to the rules" (II Timothy 2:5). Later in the same letter Paul states, "I have fought the good fight. I have finished the race, I have kept the faith" (II Timothy 4:7). Finally from the Old Testament,

the prophet Isaiah includes athletic endurance based imagery in chapter 40 verse 31 by stating “But those who hope in the Lord will renew their strength. They will soar on wings like eagles; they will run and not get weary, they will walk and not get faint.” These examples of historical connections between religion and sport spanning back thousands of years also relate to more recent and formalized relationships between religion and sport.

From a contemporary Western and Christian perspective, the modern interrelationship of religion and sport can be traced to the transformation of public schools in 19th century Great Britain (Parker & Weir, 2012). Victorian era public schools, however, were actually privately funded, but open to students from any residence or religious affiliation (Shrosbree, 1988). Additionally, Thomas Arnold, headmaster of the Rugby School from 1828-1841, created a new curricular structure aimed at fostering “good Christian gentlemen” that pursued physical endeavors and a high sense of moral value. This type of pursuit has been referred to as “Muscular Christianity.” Kimmel and Aronson (2004) describe Muscular Christianity as a New Testament-inspired commitment to manliness and physical health. According to Setran (2007), this pursuit also embodied a character-oriented desire for clean living.

Today, the relationship between religion and sport continues to loom large among athletes, coaches, fans, and even casual observers. This intersection has included those both supportive and antagonistic to religiosity in sport. According to sports sociologists Nixon and Frey (1996), religious athletes rarely talked about or demonstrated their faith to avoid ridicule by other players and the media prior to the 1970s and early 1980s. Religious athletes have garnered more tolerance in recent years; however, notable criticism and mockery still occur. For example, Tim Tebow’s religious outspokenness and on-field prayer ritual was the subject of much peer and media scrutiny (Clabough, 2011). Furthermore, Olympic hurdler Lolo Jones’ motives were questioned in her adherence to maintaining virginity before marriage due to religious reasons (Longman, 2012). Additionally, NFL linebacker Ray Lewis’ ascension from crime suspect to boisterous professor of Christian faith stirred controversy (Lavandera & Pearson, 2013). Still, spiritual rituals are commonplace at virtually every level of competition (Czech, Wrisberg, Fisher, Thompson, & Hayes, 2004; Kreider, 2003). Prayer, for example, is a fixture among religious athlete behaviors; athletes frequently gesture crucifixes after prayer and performing (Leonard, 1998). Postgame interviews frequently feature athletes discussing their faith; sports highlights often include celebratory end-zone prayers or post-game prayers at midfield (Bell, 2007; Hoffman, 1999).

Many sports-specific ministries like the Fellowship of Christian Athletes (FCA) and Athletes in Action (AIA) have been formed that may correspond with the emergence of the evangelical Christian athlete in the United States. In addition, sports chaplaincy has grown significantly as a profession (Dzikus, Waller, & Hardin, 2011). Intercollegiate sports teams and programs utilize hundreds of chaplains across the US, and virtually every NFL, MLB, and NBA team holds Sunday chapel services (Czech et al., 2004). In academia, the association between sports and religion laid the foundation for The Centre for the Study of Sport and Spirituality (CSSS) at York St. John College in 2005. Interest and research generated by the CSSS provided the framework for another sport and religion focused organization, the Centre for Sport,

Spirituality, and Religion at the University of Gloucester (Center for Sport, Spirituality, and Religion, 2014).

While religious texts and historical research provide an understanding of the connection between sport and general religious practices, more recent research has emerged examining the importance and purpose of religion in the lives of the individual college athlete. For example, using the Duke Religion Index (DRI) at the University of Florida, Storch, Kolsky, Silvestri, and Storch (2001) found that male and female student-athletes had a higher degree of religiosity than their male non-athlete counterparts. In a similar follow-up study of 226 undergraduate students at the University of Florida using a short form of the Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ), higher strength of religious faith in student-athletes was reaffirmed (Storch et al., 2004).

Several studies highlighted the purpose of religious prayer in collegiate athletes' lives. Through interviews of nine former Division I Christian athletes about their prayer experiences before, during, and after competition, Czech et al. (2004) revealed four major themes: 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).

Bell, Johnson, and Petersen (2009) conducted the initial research exploring student-athlete religiosity within FB universities. Using the SCSRFQ, this study surveyed 201 male and female student-athletes and non-student-athletes at an FB NCAA Division III institution and 174 male and female student-athletes and non-student-athletes at an NFB NCAA Division III institution. The study found that college students at an FB institution had higher religiosity than students at an NFB institution; however, student-athletes at an FB institution had lower religiosity than their non-student-athlete classmates. Further, it was found that women tended to have a higher degree of religiosity than men.

Despite the recent rise in research regarding the role of religion in the lives of intercollegiate athletes, very few studies have focused on how this role may manifest at FB and NFB institutions at the highest level of NCAA competition, the Division I-FBS level. Given the prominent profile of athletic programs in this level of competition and the increasing resources dedicated to these programs and the recruitment of prospective athletes, such research could improve the strategies and knowledge of intercollegiate sports administrators, coaches, and consultants as they seek to attract student-athletes who best fit with their institutions.

Research Questions

The purpose of this study was to measure, examine, and compare the religiosity of student-athletes and non-student-athletes at FB and NFB NCAA Division I-FBS institutions. Religiosity between gender, institution type, and student-athlete status will be compared. Results can be used to assist athletic administrators, coaches, and sports consultants in better

understanding the interaction between intercollegiate athletes and their faith. This data could prove relevant in how athletic programs can best recruit, motivate, and communicate with intercollegiate athletes. In order to discover this information, the following questions were posed to structure this study:

1. What differences exist in the strength of religious faith between the FB undergraduate population and NFB undergraduate population as a whole, both student-athletes and non-student-athletes, for the two institutions?
2. What differences exist in the strength of religious faith between student-athletes attending a NFB 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 FB 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 student-athletes and non-student-athletes attending a FB institution and student-athletes and non-student-athletes attending a NFB institution?

Methods

The methodology will be illustrated in the following subsections: participants, instrumentation, procedure and analyses.

Participants

The target population of this study subsisted of undergraduate students enrolled at an FB institution and an NFB institution. Faith-based or non-faith-based institutional status was determined by affiliation (or lack thereof) with the Council for Christian Colleges and Universities (CCCU). The CCCU specifies that an affiliate must have a “strong commitment to Christ-centered higher education” (Council for Christian Colleges and Universities, Member Characteristics section, para. 4, 2013). For example, the FB institution required specific Christian courses and chapel attendance as part of its undergraduate curriculum. Additionally, the FB institution included a commitment to Christian education in its mission statement. By contrast, the NFB institution was deemed non-faith-based because, despite its historical faith-based ties, it was not affiliated with CCCU, nor does it require mandatory chapel attendance or completion of undergraduate Christian courses. Both institutions participate in NCAA Division I-FBS intercollegiate athletics and are located in the Southern United States.

Non-student-athlete subjects were approached in several sections of pre-determined, introductory level science or humanities classes. Each section contained approximately 12-60 subjects. In order to allow for a broad representation of gender, classification, age, and academic interest, sampled sections were required to satisfy the general education curricula at both universities. The primary researcher solicited permission to survey sections from the respective departmental chairpersons and course instructors at each institution. Student-athlete participants were obtained from the following varsity level intercollegiate teams: football, baseball, men’s and women’s basketball, women’s soccer, men’s and women’s tennis, women’s volleyball, men’s and women’s track and field, equestrian, and men’s and women’s cross country. Athletes’ participation was founded on the permission and cooperation of their respective athletic

administrators and coaches. The aforementioned sports were selected because they are NCAA offerings at both institutions, any sports offered at only one of the two institutions were excluded. The total sample yielded 360 completed surveys attending FB institution and 253 completed surveys from NFB institution ($N = 613$).

Instrumentation

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

For the purposes of this study, religiosity was synonymous with strength of religious faith. Religious faith was defined 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). The SCSRFQ assesses the strength of religious faith, without regard to denomination or religion, using a 10-item survey. Each item was scored by a 4-point Likert-type scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). Example items on the survey included “My faith impacts many of my decisions,” “I look to my faith as a source of inspiration,” and “I enjoy being around others who share my faith.” After each participant completed the questionnaire, scores from the ten items are summed for a cumulative strength of religious faith score, ranging from 10 (lowest) to 40 (highest). Plante and Boccacini (1997) found the SCSRFQ to have high internal reliability ($r = .92$). Additionally, the SCSRFQ demonstrated significant correlation with other religiosity metrics (Plante, Yancey, Sherman, Guertin, & Pardini, 1999). For example, it was correlated with the Duke Religion Index (DRI) developed by Koenig, Parkerson, and Meador (1997), which evaluates religious involvement (r 's ranged from $-.71$ to $-.85$, $p < .05$). The SCSRFQ was also correlated with the Age Universal Religious Orientation Scale developed by Gorsuch and Venable (1983), which assesses intrinsic and extrinsic religiosity (r 's ranged from $.70$ to $.83$, $p < .05$). Finally, it was correlated with the Intrinsic Motivation Scale developed by Hoge (1972), which measured religious motivation (r 's ranged from $.69$ to $.82$, $p < .05$).

The developers of the SCSRFQ sought to create a shorter, simpler instrument that evaluated strength of religious faith in lieu of a variety of existing instruments that assessed a wide spectrum of religious categories (Plante & Boccacini, 1997). The brevity of the SCSRFQ deemed it most appropriate for this study.

Procedures

The primary researcher obtained approval from the primary researcher's Institutional Review Board and the respective review boards of the FB and NFB institutions. Before questionnaires could be administered to student-athletes and non-student-athletes, permission was obtained by the respective athletic administration, its coaches, as well as the course

departments at each institution. After all permissions were received, surveys were administered during spring, summer, and fall terms. Both institutions subscribe to a semester system, with at least two additional summer terms.

The primary researcher arrived 20 minutes before each scheduled course to administer the questionnaire to non-student-athletes at the FB institution and the NFB institution. The survey packet included the informed consent form and the survey. Writing utensils were also made available. Next, the primary researcher read a script reviewing the purpose of the study, voluntary participation, possible risks and benefits, and instructions for completing the questionnaire. Participants who indicated that they had completed the SCSRFAQ before were not included in the analysis. Additionally, information submitted by student-athletes present during the sampled academic courses were only included in the analysis if they had not previously completed the survey.

Student-athletes who were not previously sampled in academic courses at FB institution and NFB institution were administered the survey in team meetings or individually. In some cases, the primary researcher was not allowed to administer the questionnaire directly; subsequently, an athletic administrator or coach was given instructions on how to serve as a survey proctor proxy. If student-athletes indicated that they had completed this survey before, their data would not be included in the analysis.

Analysis

Upon completion of data collection and tabulation, a 2x2x2 (Gender x Current Athletic Participation x Institution Attended) ANOVA was used to evaluate possible significant differences between gender and student-athletes and non-student-athletes attending the FB institution and the NFB institution regarding strength of religious faith. The level of probability to assess the significance of all analyses was established a priori at $p < .05$.

Results

For this study, 613 participants completed the SCSRFAQ. The average age of participants was 19.97 years old ($SD = 2.01$); the youngest participant was 17 years old and the oldest was 33 years old. Demographically, the study yielded a balanced sample in terms of gender, athlete status, and institution type, as shown in Figure 1. The gender breakdown was 53.2% female ($n = 326$) and 46.8% male ($n = 287$). In regard to intercollegiate athletic participation, 54% of the participants were student-athletes ($n = 331$) and 46% were non-student-athletes ($n = 282$). Furthermore, 58.7% of the participants attended FB institution ($n = 360$) and 41.3% attended NFB institution ($n = 282$).

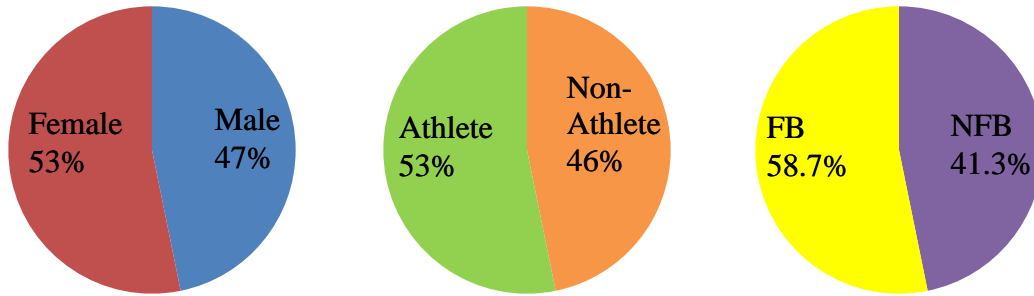


Figure 1. Binary demographic distributions of the sample.

Figure 2 illustrates participant ethnicity. The majority of participants were White/Caucasian ($n = 392$), an accurate representation of the populations of the FB and NFB institutions compared to the institutions reported undergraduate student bodies on their websites. However, the student-athlete groups from this study on NCAA Division I-FBS athletes yielded a higher percentage of African Americans than the general student bodies at these schools, compared to the institution reported statistics on their websites. Additionally, Hispanics represented the largest ethnic minority at both institutions within the student populations as a whole, but not within the student-athlete groups.

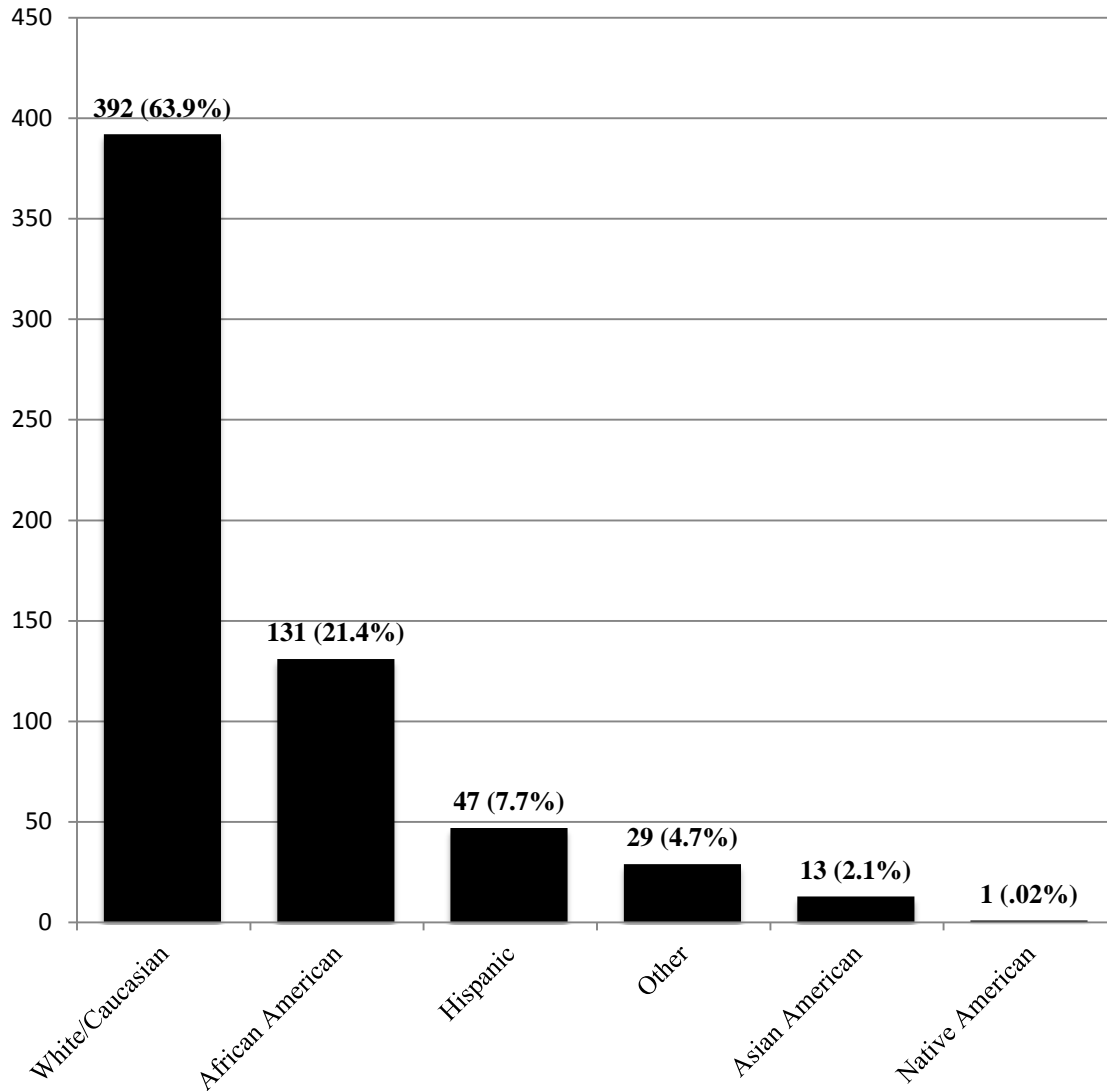


Figure 2. Ethnic distribution of the sample.

Generally, the sample produced a representative breakdown of students across the various academic year status as shown in Figure 3. Freshmen comprised the largest group of participants at 34.9% ($n = 214$), an expected outcome given the introductory nature of the sampled academic sections.

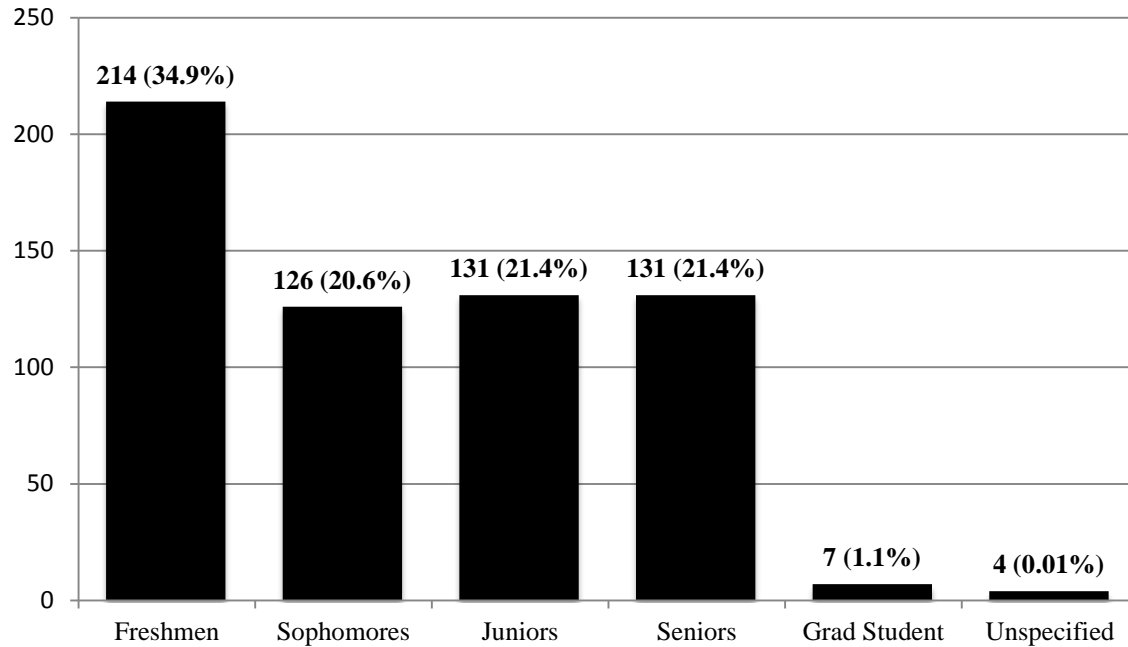


Figure 3. Class year distribution of the sample.

The student-athlete sample featured 13 different sports and an additional category for multi-sport participants. The distribution of the different sports and the representation of each sport at each institution is displayed in Figure 4. As mentioned earlier, only sports that were offered at both institutions were surveyed in order to create statistical congruence. Due to the inherent nature of their roster sizes, 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 in this data collection. Cross country runners frequently run long distance track events, thus, were combined with track athletes.

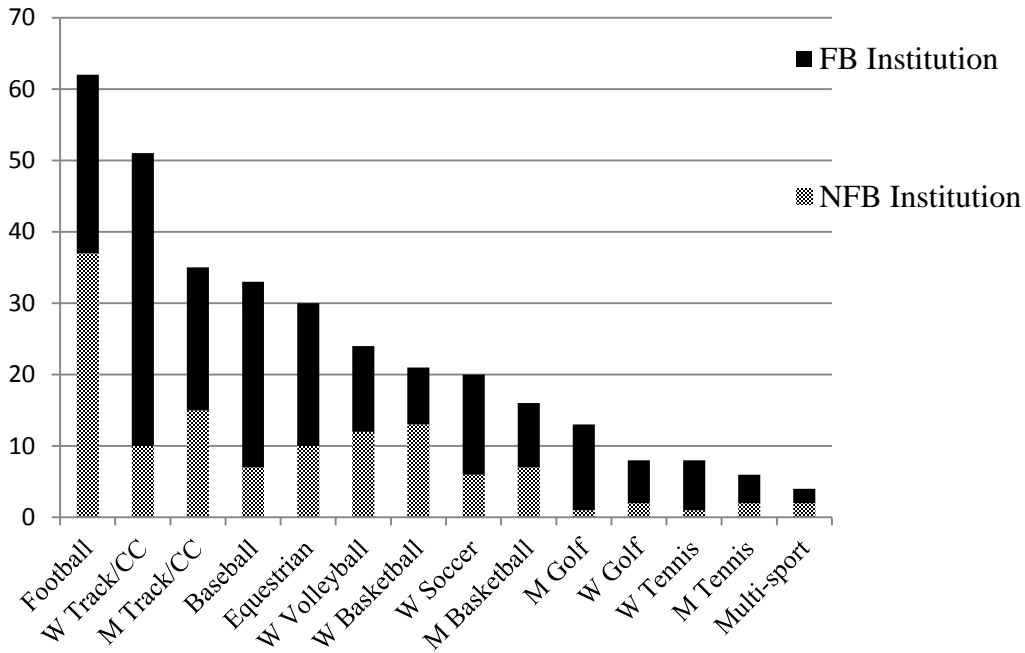


Figure 4. Sport distribution within the student-athlete sample.

Religious affiliations for the sample as a whole are featured in Figure 5. Protestants ($n = 216$), non-denominational ($n = 215$), and Catholic ($n = 112$) affiliations represented the largest religious affiliations. Responses of “Other” for this survey item included Muslim, Buddhist, Greek Orthodox, Jehovah’s Witnesses, and those who identified themselves simply as “spiritual”.

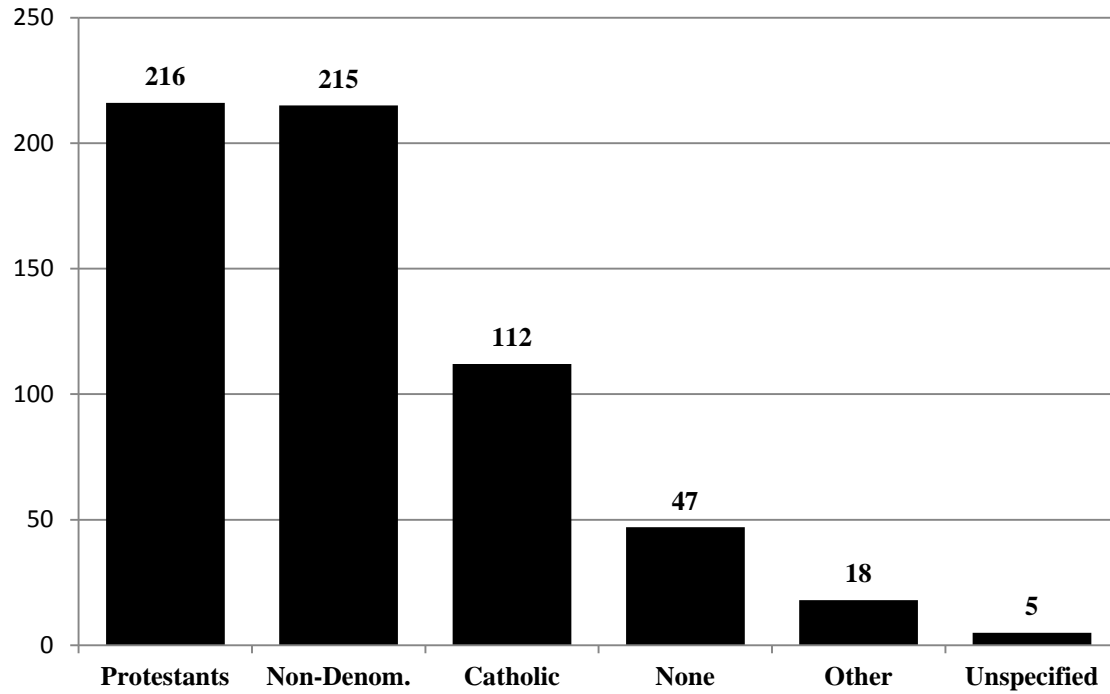


Figure 5. Religious affiliation distribution of the sample.

A summary of the results yielded by the 2 x 2 x 2 ANOVA are featured in Table 1. Possible differences between institutions, student-athletes and non-student-athletes, and genders are discussed in the following section.

Table 1

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

Institution	Gender	Athlete Status	Frequency (N)	Mean	Standard Error
FB	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
NFB	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 (FB+NFB)	Male	Yes	168	31.65	0.57
		No	119	29.12	0.66
		Total	287	30.39	0.44
Total (FB+NFB)	Female	Yes	163	33.95	0.60
		No	163	31.41	0.57
		Total	326	32.68	0.41

The first research question asked what differences exist in the strength of religious faith between the students (both athletes and non-athletes) attending a faith-based NCAA Division I-FBS institution and the students (both athletes and non-athletes) attending a non-faith-based NCAA Division I-FBS institution. More simply, was there a difference in the strength of religious faith between undergraduate students as a whole at the FB institution and the NFB institution? Although the religiosity mean of the FB ($M = 32.05$) was higher than the NFB ($M = 31.01$), results found no significant difference in the strength of religious faith between undergraduate students at the FB institution and the NFB institution, $F(1, 605) = 2.99, p > .05$.

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 FB	0.519278	0.300265	1.73	.0842	
Female	1.1484334	0.300265	3.82	.0001*	
Institution FB*Gender	-0.083961	0.300265	-0.28	.7799	
Non-Athlete	-1.266886	0.300265	-4.22	<.0001*	
Institution FB*Non-Athlete	0.6203371	0.300265	2.07	.0393*	
Female*Non-Athlete	-0.001435	0.300265	-0.00	.9962	
Inst. FB*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	

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 (NFB) and non-student-athletes at the same institution. The results showed that student-athletes at the NFB institution had a significantly higher strength of religious faith than their non-student-athlete counterparts, $F(1, 605) = 4.26, p < .05$. On the SCSRFQ scale (with maximal ranges

from 10 to 40), student athletes at the NFB institution recorded a higher score ($M = 32.79$) than the non-student-athletes ($M = 29.30$) at the same 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 (FB) and non-student-athletes at the same institution. Results indicated no significant difference in strength of religious faith between student-athletes and non-student-athletes at the FB institution, $F(1, 605) = 2.07, p > .05$. A closer examination revealed that student-athletes indicated only a slightly higher SCSRFQ score ($M = 32.77$) than their non-student-athlete counterparts ($M = 31.55$).

The fourth research question asked what gender differences exist in the strength of religious faith in student-athletes and non-student-athletes attending a faith-based institution (FB) and student-athletes and non-student-athletes attending a non-faith-based institution (NFB). Results illustrated a significant difference in the strength of religious faith between males and females, regardless of institution or intercollegiate participation, $F(1, 605) = 14.63, p < .05$. Specifically, females demonstrated higher strength of religious faith ($M = 32.75$) than males ($M = 30.60$).

Discussion

In lieu of an examination of extant research, focus on the religious faith of student-athletes and non-student-athletes at Division I-FBS institutions was scant, and virtually no studies had been conducted on faith-based NCAA Division I-FBS institutions. Subsequently, the purpose of this study was to measure, examine, and compare the religiosity of student-athletes and non-student-athletes at both faith-based and non-faith-based NCAA Division I-FBS institutions.

The findings regarding research question one showed no significant differences in the strength of religious faith between student-athletes and non-student-athletes at a NCAA Division I-FBS institution (FB) and student-athletes and non-student athletes at a non-faith-based institution (NFB). These results are contrasted by the findings of Bell et al. (2009) where undergraduate students at a faith-based NCAA Division III institution displayed a significantly higher strength of religious faith than undergraduate students at a non-faith-based NCAA Division III institution. Various factors may explain these differing results. For example, while the FB institution was deemed faith-based for this study based upon its CCCU affiliation, the institution did not require its students to sign or adhere to a statement of faith (as did the students in the Bell study), which may have influenced the type of students who choose to attend, based on religious lifestyle preferences. Additionally, the FB institution was a relatively large private institution, offering a wide spectrum of academic and student life choices usually afforded by larger public universities. As a result, non-Christian students, students of no faith, or students who may be indifferent about faith as an element of their educational experience may still enroll. Furthermore, the NFB institution had a lengthy faith-based foundation prior to its secularization; thus, students looking for a faith-based college experience may be unaware of the university's more recent transformation or may have chosen to attend based upon the historical church ties of this university. However, it should be noted that most private institutions had a high degree of direct church affiliation upon their founding. Choosing to compare private institutions allowed

for minimal difference between samples in regard to student population, intercollegiate athletic opportunities, and potential socioeconomic barriers to attendance.

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 (NFB) and non-student-athletes at the same institution. The results showed that student-athletes at the NFB institution had a significantly higher strength of religious faith than their non-student-athlete counterparts. On the 10-40 SCSRFQ scale, student athletes at the NFB institution recorded a higher score ($M = 32.79$) than the non-student-athletes ($M = 29.30$) at the same institution. This outcome reinforces prior research finding that student-athletes are typically more religious than non-student-athletes at non-faith-based institutions. For example, Storch et al. (2001) found that male and female student-athletes were found to have a higher level of religiosity than male non-student-athletes at the University of Florida. A follow-up study at the University of Florida reaffirmed a higher strength of religious faith in student-athletes using a short form of the SCSRFQ (Storch et al., 2004). Furthermore, Bell et al. (2009) found that NCAA Division III student-athletes at a non-faith-based institution displayed higher strength of religious faith than non-student-athletes using the SCSRFQ. While ethnicity was not incorporated as an independent variable in this present study, it may warrant consideration as a potential confounding variable because 60% of student-athletes sampled at NFB institution were ethnic minorities, compared to only 20% of the non-student-athletes.

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 (FB) and non-student-athletes at the same institution. Results indicated no significant difference in strength of religious faith between student-athletes and non-student-athletes at Institution A. A closer examination revealed that student-athletes indicated only a slightly higher SCSRFQ score ($M = 32.77$) than their non-student-athlete counterparts ($M = 31.55$). This outcome is contradictory to prior research, where non-student-athletes at a faith-based institution were shown to have a significantly higher strength of religious faith than their student-athlete counterparts (Bell et al., 2009). As mentioned regarding the first research question comparing strength of religious faith between the overall undergraduate population between the FB and NFB institutions, this outcome may be a consequence of a faith-based environment that does not require a statement of faith for faculty or students.

The fourth research question asked what gender differences exist in the strength of religious faith in student-athletes and non-student-athletes attending a faith-based institution (FB) and student-athletes and non-student-athletes attending a non-faith-based institution (NFB). Results illustrated a significant difference in the strength of religious faith between males and females, regardless of institution or intercollegiate participation. Specifically, females demonstrated higher strength of religious faith ($M = 32.75$) than males ($M = 30.60$). This outcome reinforces prior studies on the relationship between gender and religion (Batson, Schoenrade, & Ventis, 1993; Bell et al., 2009; Davis & Smith, 2009; Jones, St. Peter, Fernandes, Herrenkohl, Kosterman, & Hawkins, 2011). For example, Batson et al. (1993) found that females may attend church services more frequently than males. Davis and Smith (1991) found

that females may be more likely to read their Bibles and pray than males. Additionally, Bell et al. (2009) revealed that females had a higher strength of religious faith than males, regardless of intercollegiate athlete status or religious identity, or lack thereof, of the institution.

These findings may prove beneficial in both academic and sport practitioner application frameworks. From an academic perspective, the results supplement extant studies on the relationship between religion and intercollegiate student-athletes, as well as introducing new knowledge of this relationship at a faith-based NCAA Division I-FBS institution, a specific area of the subject which had not yet been approached: prior studies on faith-based institutions focused only on NCAA Division II and Division III levels (Bell et al., 2009; Czech & Bullet, 2007).

From a sport practitioner standpoint the application of these findings could improve the strategies and knowledge of intercollegiate sports administrators, coaches, and consultants as they seek to attract student-athletes who best fit with their institutions. However, the use, or perhaps misuse or abuse, of student-athlete religiosity by sport practitioners does raise issues about how best to implement this knowledge. Should an athletic director or head coach approach student-athletes' religiosity from a utilitarian or deontological perspective? What are the potential advantages and disadvantages of each approach?

Using the foundational writings of British philosophers Jeremy Bentham and John Stuart Mill, Schneider (2010) describes the overarching objective of utilitarian theory as "bringing the greatest overall happiness to the greatest number of people" (p. 59). Within this theoretical approach, increased awareness of the role that religiosity plays in the lives of intercollegiate student-athletes could guide coaches, university administrators, executive athletic personnel, sports chaplains, or sports consultants on how best to recruit, instruct, or develop the student-athletes. For example, a coach's awareness of a prospective student-athlete's religiosity might assist in choosing which student-athlete is the best fit for the coaching staff or the institution, thus benefitting both the student-athlete and the institution. Additionally, awareness of a student-athlete's religiosity may aid in the intervention of a student-athlete-related crisis, such as an alcohol or performance enhancing drug use violation. Furthermore, religiosity awareness could facilitate prevention of risky behaviors by student-athletes. Inverse relationships between student-athletes' religiosity and substance abuse have been observed (Storch, et al., 2003); Moore, et al. (2011) found that the influence of religious beliefs predicted lower alcohol use and sexual behavior in student-athletes. An alternative application of utility is possible based upon the operational definition of "greatest overall happiness." Consider if the definition of "greatest overall happiness" to an athletic director or head coach is not to develop the student-athlete, but simply to win more games, thus potentially generating more revenue for the athletic department and appeasing a fan-base? In the recruiting process, a savvy recruiter could easily present a coaching staff in a religious light, when in fact, the primary interest of the recruiter is simply to attract the best athlete to the institution by connecting on a religious level. Once a student-athlete has committed to the program, there may not be any incentive for the coaching staff to adhere to the student-athlete's religious expectations. Furthermore, the availability of a sports

chaplain could be reduced to simply a tool to keep a troubled student-athlete motivated or for sport performance, rather than augmenting the holistic development of the student-athlete.

Reframed, awareness of an intercollegiate student-athlete's religiosity could also be implemented from a deontological perspective. While utilitarianism is driven by the consequences of an act (the extent to which it produces happiness for the greatest number of those involved), a deontological approach is driven by motives and duty. Many universities, especially those that are faith-based or religious in nature, include a directive to develop their students' faith in their mission statement. For example, Brigham Young University's mission statement requires that the institution "must provide an environment enlightened by living prophets and sustained by those moral virtues which characterize the life and teachings of the Son of God" (2014, BYU Mission Statement section, para. 3). The University of Notre Dame "encourages a way of living consonant with a Christian community and manifest in prayer, liturgy and service" (2014, Mission section, para. 5). While no longer considered a faith-based institution, Wake Forest University's mission statement calls for "the development of the whole person – intellectual, moral, spiritual and physical" (2014, Mission section, para. 3). It should be noted that all three of the aforementioned universities are NCAA Division I-FBS institutions. The advantage of this approach is a university's fulfillment of an obligation to develop the student-athlete. While a student-athlete may benefit on an individual, personal, and holistic level, the disadvantage of a deontological approach could manifest in competition. Recruiting student-athletes with a sincere consideration for religiosity may attract the best student fit for an institution, but not necessarily attract the best athlete, subsequently leading to less competitive teams on the field. Taken a step further, weaker teams may lead to worse records, diminished fan support and revenue, especially at the NCAA Division I-FBS level.

Appropriate use of religiosity should be evaluated within the university executive administration, as well as the athletic department as a whole: athletic directors, compliance officers, coaching staff, sports psychologists, chaplains, and the student-athletes. Regardless of whether a utilitarian, deontological, or alternative perspective is applied, there may be adverse consequences if awareness of student-athlete religiosity is misused. Todd Patulski, Deputy Athletic Director at Baylor University noted that some college administrators perceive their athletic programs as the "front porch" of their universities due to the rising profile of NCAA Division I-FBS intercollegiate sports (personal communication, March 20, 2011). Certainly, religiosity awareness could be employed to enhance the image of a university and its athletic department – merely attracting attention or making a good first impression. However, the aim should be the authentic pursuit of student-athlete development, whether the institution is faith-based or non-faith-based. While improving the image of a university has its merits, awareness of student-athlete religiosity should provide more than a view of the front porch and provide a deeper understanding of what lies beyond the front porch.

The findings from this study raise many questions and directions for future research. Most notably, what variables may have contributed to the absence of significant differences in the strength of religiosity between student-athletes and non-student-athletes at the FB institution? Specifically, university policies or environments may be examined more closely. Second, there

are many faith-based NCAA institutions: how might religiosity compare between the student-athletes and non-student-athletes at faith-based institutions of different competition levels (Division I, II, III, etc.) or between institutions of different denominational identities (Catholic, Mormon, Baptist, etc.)? Faith-based institutions in different geographic regions could also be examined. Finally, how might a student-athlete's religiosity correlate to behaviors both on and off the playing field? In terms of behavior on the field of play, possible relationships between religiosity and positive displays of sportsmanship and good team chemistry or negative displays like personal fouls could be examined. Given the increasing visibility of intercollegiate athletics, especially at the NCAA Division I-FBS level, an examination of how a student-athlete's religiosity may factor in off-field decisions and behaviors related to use of alcohol, recreational drugs, and performance enhancing drugs is another potential area for inquiry.

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