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THE PERCEIVED CENTRALITY OF SPIRITUALITY IN ATHLETIC COMPETITION

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THE PERCEIVED CENTRALITY OF SPIRITUALITY IN ATHLETIC COMPETITION

By

JOEL T. PERTTULA

A doctoral dissertation submitted to the
College of Education
in partial fulfillment of the requirements
for the degree Doctor of Education
in Organizational Leadership

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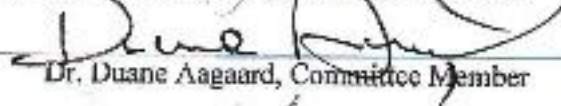
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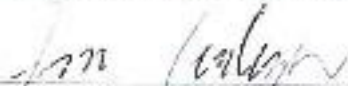
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Dr. James Anderson, Dean, College of Education

DEDICATION

“‘Not by might nor by power, but by my Spirit,’ says the LORD Almighty” (Zechariah 4:6, NIV). God is my strength. He sustains me and has enabled me to complete this major milestone in my life.

I would like to thank my beautiful wife, Bernadette, for your love and support. You are the love of my life and, I am blessed to share life’s adventure with you. You are my best friend and closest companion. I thank God for the day He brought you into my life. Your strength, insights, and athletic accomplishments have been an inspiration to me in this study. I love you!

I would also like to thank our children, Noah, Jase, and the little one soon to come. Thank you for your love, flexibility, and patience. You are the most precious gifts God has given Mommy and me. We are excited to discover the fullness of God’s plan for our growing family. Now that this dissertation is complete, Daddy won’t have to type as much, I think? I would also like to thank my parents, Matti and Maarit, for their endless love, support, prayer, and encouragement. Thank you for always believing in me! Your investment into my life is immeasurable. Thank you for the platform you have created for me to know God and to pursue the dreams He has planted in my heart. I love you both so very much! Ron, Kent, Matias and Barbarah, Lincoln, Nestor and Fem, Ben and Krysten, Caleb and Ethan, thank you for your love, encouragement, and support during this project.

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Dr. Gollery, your passion for analytics is contagious! You are selfless, humble, and an incredible asset to the entire Southeastern community. As my methodologist, you gave me the

confidence to analyze data, interpret variables, and make sense of multiple linear regression, as well as apply the one-way analysis of variance (ANOVA). You have given me a whole new appreciation for data analyses! Thank you for your willingness to invest your time and expertise to help me in my sport and spirituality study.

Dr. Aagaard, you completed my dissertation committee. You were a godsend gift to this study. Thank you for your interest in my project and for being willing to invest your time and energy into my academic endeavors. I consider your academic insight and experience in athletics a valuable resource in this study. I am thankful that the Lord has connected our paths

ABSTRACT

Spirituality, while not visible, is a central component in athletic competition. This study examined the perceived centrality of spirituality in athletic competition among Christian athletes. To do so, a theological understanding of the image of God was developed and considered participant gender, ethnicity, student's level of standing, preferred sport, and cultural environment associated with the preferred sport for the purpose of identifying the most robust, statistically significant correlate and predictor of the perceived centrality of spirituality in athletic competition. The quantitative study utilized survey research methodology. A total of 65 student-athletes were approached and the first 53 athletes who provided an email address were invited to participate in the study. The findings indicated that a key correlation was held across demographic stratum. Participants perceived Christian spirituality to be central in athletic competition. A multiple linear regression predicting the centrality of spirituality determined that one of the independent predictor variables, the interrelationship of the spiritual, mental and physical elements, in athletics represented a statistically significant predictor ($p < .001$). Additionally, the study found that prayer after an athletic contest represented a statistically significant correlate ($r = .40$; $p = .003$) and predictor of the centrality of spirituality in athletic competition.

Keywords: athletic competition, centrality of spirituality, Christian spirituality, image of God, spirituality, sport, prayer

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I. INTRODUCTION

Background

The background of this study on sport and spirituality emerges from three elements: (1) a personal perspective, (2) an observable presence of spiritual rituals among sport participants, and (3) a variance of opinion within the scholarly community on the place of spirituality within sport. First, as a Christian and former athlete, I have long sought to understand the implications of Christian spirituality in the context of competitive sports. Second, it is not uncommon for athletes to engage in prayer prior to a sporting event or refer to their faith in post-competition settings (Alpert, 2015; Scholes & Sassower, 2014). Third, scholars have disagreed with whether spirituality has a place in sports. For instance, Crust (2006) has argued that spiritual practices are diametrically opposed to standard sport psychology approaches, while Nesti (2007) has called for greater development in the area of sport and spirituality. Together, these three dimensions have merged to form the premise of this research study on the perceived centrality of spirituality in athletic competition.

Problem Statement

Sport and spirituality are an unlikely pairing, since matters of faith are transcendent and the nature of sport is more tangible, in that results often are measured in wins and losses.

Furthermore, relative to sport, the physical contributions of an athlete are easily seen through qualities like strength, speed, and agility. The mental contributions of an athlete can be observed in the athlete's resolve as well as the strategies employed in the midst of competition. An athlete's spiritual contribution, however, is less evident and perhaps the very reason it is often overlooked or ignored.

Additionally, in the field of sport psychology, Crust (2006) has challenged the spiritual dimension in sport and argued, "Given the lack of substantive empirical evidence, it is concluded that calls for greater integration of a spiritual dimension in sport are somewhat premature and potentially troublesome" (p. 17). Crust also critiqued the legitimacy of spirituality in sport due to an over-reliance on qualitative research approaches and stated, "Personal accounts and descriptions are based on individual interpretations, which reflect personal perceptions and belief systems – they do not necessarily reflect reality" (p. 22). In light of these facts, a quantitative approach was used in this study to investigate the degree to which Christian spirituality is central to athletic competition.

Furthermore, given the pluralistic nature of society (Hiebert, 2008) and the amorphous tendencies of modern spirituality (Carson, 2009), the researcher investigated sport and spirituality from both a Christian theological and anthropological perspective. Similar to Watson (2011), who approached the Christian athlete with a holistic understanding of personhood, the researcher proposed that spirituality is interlocked in the athlete's overall design, and the athlete's entire personhood is invested in the contest. This premise rises from a Judeo-Christian worldview that stands on the beliefs that humankind is made in the "image of God" and our personhood is richly integrated in body, mind, and spirit (Coe, 2014; Fritschel, 2014; Hemphill, 2015; McArdle, 2014; Peters, 2005; Turner, 2013; Watson, 2011; Wright, 2011).

Purpose Statement

Although scholars have researched and written on the topic of sport and spirituality (Czech, Wrisberg, Fisher, Thompson & Hayes, 2004; Dillon & Tait, 2000; Hoffman, 2010; Ridnour & Hammermeister, 2008; Watson, 2011), the influence of Christian spirituality in athletic competition remains a relatively unexplored topic and has, in some cases, been denied as a legitimate area of research (Crust, 2006). The purpose of this study was to survey Christian athletes at a private Christian, liberal arts university and to explore the perceived centrality of spirituality in athletic competition. Additionally, this study sought to identify the role of spiritual disciplines—e.g., prayer, worship, Bible study—in athletic competition, as well as to engage the participants on their perception of the importance of an athlete’s spiritual depth over physical and mental toughness.

Research Questions

By means of addressing the stated research problem regarding the degree to which spirituality is central in athletic competition, the following research questions were posed:

1. To what degree do study participants perceive Christian spirituality as central to subsequent engagement in athletic competition?
2. Considering participant preferred sport, and cultural environment associated with the preferred sport, which represents the most robust, statistically significant correlate and predictor of perceived centrality of spirituality in athletic competition?
3. Considering participant gender, ethnicity, education level, and religious preference, which represents the most robust, statistically significant correlate and predictor of perceived centrality of spirituality in athletic competition?

4. Considering participant perception of importance of praying before, during, and after an athletic completion, which represents the most robust, statistically significant predictor of perceived centrality of spirituality in athletic competition?
5. Considering participant perception of the importance of spiritual depth over physical and mental toughness; interrelated balance of spiritual, physical, and mental aspects of being; and perceived importance of spirituality in and outside of competition, which represents the most robust, statistically significant predictor of perceived centrality of spirituality in athletic competition?
6. Considering participant perception of the centrality of spirituality in athletic competition, the reading of religious texts before athletic competition, and the posture that one's failures or mistakes are viewed as opportunities to grow, which represents the most robust correlate and predictor of the athlete's perception of prayer/meditation as a means of overcoming feelings of disappointment after a defeat?

Data Analysis

Prior to addressing the stated research questions in the proposed study, preliminary analyses were conducted. Specifically, missing data, internal consistency (reliability) of participant response to survey items, essential demographic data, and dimension reduction of survey items were analyzed and reported.

Missing data were analyzed using descriptive statistical techniques. Frequencies and percentages comprised the primary statistical methods of analysis and interpretation. Little's MCAR test statistic was utilized to evaluate the randomness of subsequent missing data. An

MCAR value of $p > .05$ was considered indicative of missing data were sufficiently random in nature.

The internal consistency or reliability of participant to the survey items was addressed through the application of Cronbach's alpha (α) test statistic. The statistical significance of α was assessed through the F -test. The value of $p < .05$ was considered statistically significant.

The study's essential demographic information was assessed using descriptive statistical techniques. The mean, standard deviation, frequency counts (n), and percentages (%) represented the primary methods of descriptive analysis.

The reduction of survey items into dimensions or factors were conducted using exploratory factor analysis (EFA) via principal components analysis (PCA). Factoring model fitness was assessed through the interpretation of KMO and Bartlett sphericity values. KMO values of .40 and above were considered indicative of adequate sample size for the factoring process. Bartlett sphericity chi square values of $p < .05$ were indicative of sufficiently large correlation values necessary for factoring.

Analyses by Research Question

Research Question 1 was addressed using both descriptive and inferential statistical techniques. Measures of central tendency (mean scores), variability (standard deviations), and percentages represented the primary descriptive statistical techniques to be applied. The single sample t -test represented the inferential statistical technique by which respective mean score comparisons were evaluated for statistical significance, with the null value of 3 used for statistical significance of finding. The threshold value for statistical significance was $p < .05$. The magnitude of effect (effect size) was assessed using Cohen's d . Cohen's conventions represented the guideline for the interpretation of all effect size values. A t -test of independent

means and one-way analysis of variance (ANOVA) were utilized for subsequent follow-up analyses involving between-subjects comparisons inherent in Research Question 1. The threshold value for statistical significance was established at $p < .05$; the magnitude of effect (effect size) was assessed using Cohen's d .

Research Questions 2 through 6 were associative and predictive in nature. As such, the Pearson product-moment correlation coefficient was used to assess the mathematical relationships of respective variables inherent in all four research questions. Mathematical relationships manifesting p -values of .05 or less were considered statistically significant. Multiple linear regression was utilized to assess the predictive aspect of the four research questions. Predictive model fitness was assessed through ANOVA Table F -values. ANOVA values of $p < .05$ were indicative of predictive model fitness. Adjusted R^2 values represented the basis for the evaluation of predictive effect. The formula $\text{Adjusted } R^2 / 1 - \text{Adjusted } R^2$ were used to calculate the effect size of the predictive model. Values of .35 or greater were considered large predictive effect sizes. The statistical significance of predictive effect will be interpreted through the respective slope (t) values of independent predictor variables.

Significance of the Study

This quantitative study offers a new paradigm in the field of sport and spirituality. While scholars (Parry, Robinson, Watson, & Nesti, 2010) and others have made significant contributions to the subject of sport and spirituality, this specific study offers a new dimension of research that may prove helpful in understanding the centrality of Christian spirituality and the dynamic it plays in athletic competition. Evaluating its centrality is likely to help Christian and non-Christian athletes, coaches, and sport management professionals develop a more holistic view of the athlete. The study may also offer athletic programs a reason to consider spiritual

formation as a viable component for the well-being of their athletes as well as the organizational structures of their athletic programs. Also, by considering the importance of spiritual depth over physical and mental toughness, this study may help sport industry professionals in promoting athlete spirituality within the context of competitive sports as a viable coping mechanism for overcoming athletic-related failures.

Research Design

This study utilized quantitative research as its methodology. Specifically, the methodological design of a cross-sectional survey, as opposed to a longitudinal survey, was used (Ruel, Wagner III, & Gillespie, 2016). The researcher proposed six research questions which the survey addressed. The researcher developed a 16-question survey that engaged the topic of sport and spirituality with the specific intent of identifying the perceived centrality of spirituality in athletic competition (Appendix A). The survey was formatted for electronic distribution during the first quarter of 2018. A convenience sample was selected to include Christian student athletes, 18 years or older, at the subject university. Finally, appropriate software was used to measure the reliability and validity of all data.

Limitations

While this study sought to introduce information on the centrality of spirituality in athletic competition, there were limitations to this study. The sample was a non-probability convenient sample drawn from Christian athletes of a private university. As such, the data may not reflect the overall trends of all private Christian universities or secular institutions. Certain generalizations may exist in the sample. The data also were collected through one survey at one point in time—creating limits to the breadth of data. This aspect also introduced limitations to

the study, as (1) participant perceptions may change may over time; and (2) since true spirituality entails a process of growth over time, a longitudinal study may reveal more accurate data.

Definition of Key Terms

Born Again/Born-Again Christian

The term *born again* is understood as a fundamental Christian belief in the salvation process. It is recorded in chapter three of the Gospel of John. Here, a discourse between Jesus and Nicodemus takes place and Jesus explains that “no one can see the kingdom of God unless they are born again” (John 3:3, New International Version). Essentially, the term refers to an experience in which an individual repents of their sins and turns to Christ for their salvation (Baker & Le Bruyns, 2008). This act takes place as a result of the Holy Spirit, who is at work in the life of the individual leading them to be spiritually reborn from above.

Christian Athlete

As God’s image bearer, the Christian athlete is a new creation in Christ and someone who seeks to glorify God in an athletic context (2 Corinthians 5:17, NIV). Christian athletes use their sport as a vehicle to express their God-given design, or, as Blazer (2015) stated, “Christian athletes use sport as a means to experience his [God’s] pleasure, and they describe this feeling as connectedness with God” (p. 55). Furthermore, Hoffman (1976) defined the Christian athlete as someone who has “integrated their theology...with their sport, thus resulting in unique motives for competing, for winning, and for training” (p. 44).

Christian Spirituality

Scholars (Ridnour & Hammermeister, 2008) have admitted that “an orthodox operational definition of spirituality and spiritual well-being has yet to be agreed upon” (p. 82).

Nevertheless, Christian spirituality, the dependent variable in this study, is simply “the holistic

quality of human life as it was meant to be, at the center of which is our relationship to God” (Willard, 1991, p. 77). Spirituality is not a superior or intangible mode of existence but, rather is an intricate part of the biblical understanding of the image of God that requires cultivation and intentionality. Robinson (2007) also expressed that spirituality “is focused on practice, experience and belief. It is mediated physical and psychological presence, and is located in experience” (p. 35). Thus, Christian spirituality is developed and cultivated by a number of spiritual disciplines outlined in the Bible. These include but are not limited to Bible study, Christian community, generosity, prayer, service, solitude, and worship.

Imago Dei

The phrase *imago Dei* (Latin) is a biblical term and can be translated as the “image of God” (Genesis 1:26, NIV). It is seminal for understanding Christian personhood. In his classic work, *Institutes of the Christian Religion*, the 16th century theologian, John Calvin (1509-1564), framed the comprehensive nature of the *imago Dei* as:

the likeness of God extends to the whole excellence by which man’s nature towers over all the kinds of living creatures...And although the primary seat of the divine image was in the mind and heart, or in the soul and its powers, yet there was no part of man, not even the body itself, in which some spark did not glow. (McNeil & Battles, 1960, p. 188)

Modern theologians (McGrath, 2012; Thorsen, 2008; Wenham, 1987; Willard, 1991) have attributed the term *image of God* to include certain immaterial qualities that distinguish humankind from the rest of creation. These attributes include creativity, speech, self-determination, the capacity to reason and make sense of the world, as well as the moral and spiritual faculties that humans share with their Creator.

Failure

Failure is a lived experience. It describes a phenomenon that athletes who are engaged in competitive sports experience from time to time. Essentially, it is an outcome that does not meet the athlete's own, the team's or another person's expectations (Anshel, 2016). However, while failures may cause losses and setbacks, they do not define the athlete. Failures offer opportunities to strengthen resolve, lead to personal growth, and may be used as a stepping-stone for success (Anshel, 2016; Dweck, 2016).

Faith

Biblically speaking, faith "is confidence in what we hope for and assurance about what we do not see" (Hebrews 11:1, NIV). Faith is the essence of the Christian life and is "an effective power directed toward the future. It springs from a direct, personal encounter with the living God" (Lane, 1989, p. 329). Contextually speaking, the faith of a Christian athlete is fuel for a purpose-driven life.

Mental Toughness

The term *mental toughness* is commonly used in sports to describe the resolve of an athlete. It means "reaching and sustaining high performance, particularly under pressure, by expanding capacity physically, mentally, and emotionally" (Anshel, 2016, p. 86). Mental toughness allows the athlete to rise to the occasion in the face of difficulty. Mental toughness is similar to the *growth mindset* which Dweck (2016) defined as "the mindset that allows people [athlete's] to thrive during some of the most challenging times in their lives" (p. 7).

Missio Dei

The phrase *missio Dei* (Latin) points to "the fact all mission is God's mission and thus the church is called by God to be an instrument in making the kingdom of God known" (Claydon,

2008, p. 403). The term is commonly understood as God's global mission, which is "an activity of God arising out of the very nature of God" (Stott, 1975, p. 66). It is redemptive in nature and, as Wright (2004) explained, the *missio Dei* means "our committed participation as God's people, at God's invitation and command, in God's own mission within the history of God's world for the redemption of God's creation" (p. 23). Contextually speaking, the Christian athlete participates in the mission of God through the context of sport. This platform enables these athletes to set a Christlike example through speech and action in athletics. Through a Christ-centered winsome lifestyle, the Christian athlete becomes a participant in the redemptive mission of God.

Physical Fitness

Physical fitness is an important aspect of an athlete's life. It entails cardiovascular (aerobic) and muscular (anaerobic) strength. The athlete can attain higher levels of physical fitness through the right nutrition, proper workout techniques, and disciplined training methodologies (Anshel, 2016).

Sport

The term *sport* means "all forms of physical activity that, through casual or organized participation, aim at expressing or improving physical fitness, mental well-being, forming social relationships or obtaining results in competition at all levels" (Council of Europe, 1992, para. 1). Similarly, the United Nations (UN) defines sport as "all forms of physical activity that contribute to physical fitness, mental well-being and social interaction, such as play, recreation, organized or competitive sport, and indigenous sports and games" (UN, 2003, p. i). Scholars such as Ellis (2014), Harris (2008), Joubert (2001), Maussier (2016), and Ortberg (2012) have credited much of the western understanding of sport to the Greeks, who introduced the world to the Olympics,

the Isthmian, Nemean and Pythian Games. Today, sport is an international phenomenon which Jarvie (2018) defined as “a contested arena shaped by struggles, both on and off the field of play” (p. 5).

II. REVIEW OF LITERATURE

Introduction

This chapter outlines a review of literature relevant to the study of sport and spirituality, and specifically to the perceived centrality of spirituality in athletic competition. The first section outlines a Christian anthropological view of personhood as it relates to the Christian athlete as God’s image bearer. Next, the review discusses Christian spirituality and spiritual formation as they relate to the Christian athlete. The third section of the review extrapolates on past studies in the area of sport and spirituality such as: spirituality and flow, Christian prayer in sport, and the relationship of spiritual well-being and sport performance. The next section of the study discusses the Christian athlete and the nature of athletic competition. The final two sections of the review focus on research related to mindsets and mental toughness in athletic competition.

A Christian Anthropological View of the Athlete as God’s Image Bearer

Two central ideas are important to emphasize in the discussion on a Christian athlete’s identity. First, while a “Platonist-Cartesian mind-body dualism [is] entrenched in Western thought...” (Watson, 2011, p. 110), it is not congruent with the biblical understanding of what it means to be human. Even though people tend to think in pairs—body and mind, good and evil, hot and cold, right and wrong, winning and losing—the Christian understanding of the

personhood suggests that the makeup of humans is far more robust (Peters, 2005).

Deconstructing this dualistic philosophy, especially as it relates to the identity of a Christian athlete, requires a theological approach to what it means to be human.

Christian anthropology, according to McArdle (2005), is the “theological specialization that tries to understand what it means to be a person in the light of Christian revelation” (p. 219). Similarly, Ezigbo (2015) has advocated that the theological and anthropological start points for understanding personhood must begin with a Judeo-Christian perspective. He contended that “questions about human origins, identity, significance, and purpose cannot be successfully answered in isolation from the concept of a creator – God” (p. 2). To this end, Genesis 1:26 can be considered as the most authoritative text for developing a Christian understanding of personhood and identity as they relate to the Christian athlete. The verse introduces the reader to the term “the image of God” (*imago Dei*, Latin). This concept grounds humanity’s relationship with the Creator: “When Christians confess that human beings are made in the ‘image of God,’ they express humanity’s dependence upon God for their existence, dignity, and meaning” (Ezigbo, 2015, p. 5). Consequently, a Christian athlete’s identity and worth are not contingent on national ranking, a win-loss record, or any other accolade the athletic context has provided. Rather, athletic competition is simply a context in which Christian athletes can express their God-given design and purpose.

In his classic work, *Institutes of the Christian Religion*, John Calvin (1509-1564) framed the comprehensive nature of the *imago Dei*:

the likeness of God extends to the whole excellence by which man’s nature towers over all the kinds of living creatures . . . And although the primary seat of the divine image

was in the mind and heart, or in the soul and its powers, yet there was no part of man, not even the body itself, in which some spark did not glow. (McNeil & Battles, 1960, p. 188)

Several modern scholars (McGrath, 2012; Thorsen, 2008; Wenham, 1987; Willard, 1991) have attributed the term “image of God” to include certain immaterial qualities that distinguish humankind from the rest of creation. These attributes include creativity, speech, self-determination, the capacity to reason and make sense of the world, as well as the moral and spiritual faculties that humans share with their Creator. Furthermore, Willard (1991) made an important observation about spirituality, that can be conceptualized in terms of the centrality of spirituality in sport, when he stated that “the physical human frame as created was designed for interaction with the spiritual realm and that this interaction can be resumed at the initiative of God” (p. 77). From this perspective, without engaging the spiritual dimension of what it means to be human, the Christian athlete faces an identity crisis.

Watson (2011) has recognized that the disciplines of sport philosophy and sport psychology have embraced the topic of spirituality in their discussion on athletic identity. However, according to Watson, the humanistic tendencies of both disciplines is to place “the *self* at the center of the framework of meaning (humanism and naturalism), rather than God” (p. 109). He went on to note that the problem with this type of spirituality is that it “is *diametrically opposed* to a Christian theological perspective of identity as described in the Bible, in which humans are called to deny themselves and live *in Christ*” (p. 109). Watson’s anthropological understating of personhood is predicated by a biblical and ultimately Jewish anthropology of athletic identity: “...mind, body and spirit are viewed as one (*nephesh*) – supporting the notion that our experience of suffering, loss, joy, and sorrow is valid in all of life’s diverse situations and messiness” (p. 116).

Both Peters (2005) and Wright (2011) have taken similar stances on the thoroughly integrated nature of biblical personhood and human identity. Peters (2005) expressed that “the anthropology of trichotomists views the human person as a whole made up of body, soul, and spirit. The body is physical ... But, the soul and spirit are not conflated into a ‘spiritual soul’ as in substance dualism” (p. 392). New Testament scholar N. T. Wright (2011) has also contributed to the discussion on trichotomy. Like Peters (2005), Wright drew attention to the overlapping, multifaceted, and richly integrated makeup of human beings. He elaborated:

three terms commonly used interchangeably to refer to non-material element(s) within dualist anthropology – mind, soul, and spirit (*nous*, *psyche* and *pneuma*), are emphatically not interchangeable. Paul urges the Romans to be transformed by the renewal of the *mind*, not soul or spirit. Jesus warns against gaining the whole world and forfeiting the *psyche*, not mind or spirit. (Wright, 2011)

A Christian theological perspective of identity offers a significantly different worldview for understanding athletes. Humanism advocates that an athlete’s personhood is summed up in a body-mind dualism, whereas a theological understanding of identity in sport is far more robust. Watson (2011) advocates that an athlete’s identity, that is “their feeling, thinking, attitudes and behavior, should be grounded in, and flow from, the heart of a loving Father God” (p. 109).

Second, Christian selfhood or identity is not defined in terms of self-actualization (Lewis, 1952; Watson 2011). It is instead defined by the culminating work of Jesus’ death and resurrection. From a biblical perspective, in surrendering their life to Christ, Christians do not lose their true self but, rather they find their truest version of themselves in Christ (2 Corinthians 5:17, NIV). Therefore, the Christian athlete’s identity is not based on winning or losing; it is not based on a coach’s approval or the athlete’s national ranking. The athlete’s identity is based on

the reality that “if anyone is in Christ, the new creation has come: The old has gone, the new is here!” (2 Corinthians 5:17, NIV). From a biblical standpoint, while the integrity of humankind’s original design was compromised by sin, the redemptive work of Christ restores humanity’s identity (Genesis 3:1-24, NIV). C. S. Lewis (1898-1963) stated it well:

The more we get what we now call “ourselves” out of the way and let Him take us over, the more truly ourselves we become . . . It is when I turn to Christ, when I give myself up to His Personality, that I first begin to have a real personality of my own (Lewis, 1952, pp. 225–226).

Contextually, for the Christian athlete, their sport does not form their identity; but rather, sport is a context in which the athlete’s identity in Christ can be worked out. Watson (2011) noted that an athlete who is not grounded in Christ may develop a sport-is-life mindset and “to lose, or be unable to play for whatever the reason, can have catastrophic consequences for the emotional and psychological balance of an individual that is, their identity” (pp. 113 – 114).

Spirituality, Spiritual Formation and the Christian Athlete

Modernity is said to have disenchanting the world, whereas postmodernity allows one to speak of spiritual realities again (Hiebert, 2008). However, postmodernity also has erased the need for absolute truth and matters of faith have become entirely subjective. Consequently, spirituality can mean virtually anything to anyone. Carson (2009) observed that “‘spirituality’ has become such an ill-defined, amorphous entity that it covers all kinds of phenomena that an earlier generation of Christians . . . would have dismissed as error, or even as ‘paganism’ or ‘heathenism’” (p. 555).

Today, people have a plethora of religions and philosophies to choose from in order to help them discover their true self. From classic Oriental religions like Buddhism and

Confucianism to Judaism and various New Age movements, today's spiritualities turn "doctrinal tenets into matters of personal opinion . . . [which] insist that it is the inner self that constitutes the authority for belief and practice" (Clark, 2006, pp. 7-8). Given the current cultural dynamic, Hiebert (2008) surmised: "Something has been lost. Postmodern religions seek to fill the void by saying that, indeed, we are like God and can be so by nature and on our own terms" (p. 237). For these reasons, certain parameters must be established in a discussion on spirituality, especially as it relates to the Christian athlete.

Scholars have admitted that "an orthodox operational definition of spirituality and spiritual well-being has yet to be agreed upon" (Ridnour & Hammermeister, 2008, p. 82). As a result, scholars (Flood, 2012; Robinson, 2007; Scorgie, 2011; Willard, 1991) have created a wide range of definition. For instance, Flood (2012) related spirituality to a metaphor of an inner journey and stated, "The main connotation of spirituality is the cultivation of the inner life of a religious community . . . although in recent years the term has come to denote an individual" (p. 80). Robinson (2007), on the other hand, framed spirituality as "focused on practice, experience and belief. It is mediated physical and psychological presence, and is located in experience" (p. 35). Both Scorgie (2011) and Willard (1991) defined spirituality in terms of Christian praxis. Scorgie (2011) framed Christian spirituality in terms of "the domain of lived Christian experience. It is about living all of life – not just some esoteric portion of it – before God, through Christ, in the transforming and empowering presence of the Holy Spirit" (p. 27). Finally, Willard (1991) approached Christian spirituality as "the holistic quality of human life as it was meant to be, at the center of which is our relationship to God" (p. 77). For the purposes of this study, Christian spirituality should not be limited to something the Christian athlete does

before, during, or after an athletic contest but, rather, the holistic quality of the Christian experience in the domain of life.

From a Christian theological perspective, the topic of Christian spirituality is associated with spiritual formation (Austin, 2012; Coe, 2008; Copan, 2016; Ezigbo, 2015; Willard 1991). The spiritual dimension of Christians in general, and Christian athletes in particular, entails that they can engage in an intentional and purposeful process that shapes and reshapes the interior of their lives. Willard (2012) identified this as “spiritual formation” and defined it as “the Spirit-driven process of forming the inner world of the human self in such a way that it becomes like the inner being of Christ himself” (p. 22). The goal of spirituality and the spiritual formation process is that the Christian athlete’s character is brought into alignment with the character of Jesus (Copan, 2016).

Coe (2008) made an important distinction between spiritual formation and moral formation. Moral formation is “the attempt of the well-intentioned believer to use spiritual formation, spiritual disciplines, ministry, service, obedience—being good in general—as a way to relieve the burden of spiritual failure, lack of love and the guilt and shame that results” (p. 55). Essentially, moral formation seeks to perfect one’s self independent of the power of the Holy Spirit. Coe insisted that “the Christian life and true spiritual formation denounce the moralistic life as a way to find happiness and please God” (p. 56). Instead, “we need to allow the indwelling Christ to be our moral trainer, not ourselves. This is at the heart of moving from moral to spiritual (relational) formation” (p. 68).

Spiritual formation cannot be understood apart from the lifelong process of discipleship or as Lewis (1952) put it, “Every Christian is to become a little Christ. The whole purpose of becoming a Christian is simply nothing else” (p. 171). Vanhoozer (2015) frames the discipleship

process in as “the project of having the mind, growing into, or putting on Christ.” (p. 155). Ezigbo (2015), on the other hand, made an important observation when he stated: “The manner of life Jesus lived sometimes goes against our ‘natural’ way of responding to things and people that threaten our interests” (p. 317). For example, in an athletic contest, it is unnatural, though not entirely unheard of, for a runner to stop and help a fallen opponent. Instead, the natural response is to keep running, because to stop means that the athlete jeopardizes the chance of winning the race. However, acts of kindness, according to the Bible, are a fruit of the Spirit and align with the character of Jesus (Galatians 5:22-25, NIV). The Christian athletes may, from time to time, find themselves in a position whereby their choice to live for Christ poses a threat to their success in competition. Yet, Jesus summons his disciples to “take up their cross and follow me,” so the Christian athlete must aspire to live for Christ no matter the cost (Mark 8:34, NIV).

Christian spirituality, spiritual formation, and discipleship, therefore, encompass a very clear reordering of life: living not for oneself but living for Jesus. Bonhoeffer (1995) remarked the life of a Christian “is marked by daily dying in the war of the flesh and the spirit, and in the mortal agony the devil inflicts upon them daily” (p. 273). In a sense, Christian spirituality includes very straightforward and unambiguous acts of obedience to Jesus. Ezigbo (2015) related this process to what he called “the Christian life” and noted it is not merely an issue of character formation but, rather, “While transformation of character is an essential part of the Christian life, enjoying a fellowship with the Triune God is the focal issue the Christian life” (p. 321). Thus, Christian spirituality is based on a loving relationship with God. For the Christians athlete, this relationship can be cultivated by the implementation of spiritual disciplines in the context of sports.

Austin (2010) has argued that participation in sports can provide a context for Christian spiritual formation. The basis for this position is a theological conviction of the practical nature of the Christian faith. According to Austin, Christianity imparts value into “many activities that at first glance do not seem spiritually significant” (p. 67). While at first glance, sports may seem very unspiritual, Austin identified that the spiritual disciplines of solitude, prayer, and meditation can be employed as spiritual practices in individual sports like running, biking, or swimming. The Christian athlete “can detach from her other concerns for a time and be alone with God, attentive to Him and His presence” (Austin, 2010, p. 69). In team sports, such as baseball, soccer, and football, “aford the opportunity for such spiritual practices as well, insofar as there are moments within the rhythm of games and practices which the athlete can engage in them” (p. 69). The key to this approach is for the athlete to cultivate an awareness of God’s presence in the context of sports or as Austin explained, “The potential ways in which sports can be conducive to spiritual formation are maximally realized only as she [the athlete] depends upon the Holy Spirit to help the virtues formed and reinforced in the contexts of sport be transferred to other aspects of her character...” (Austin, 2010, p. 75).

Past Studies in Sport and Spirituality

The following section of this literature review discusses several past studies that have been conducted in the field of sport and spirituality. Specifically, three areas of research will be discussed: spirituality and flow, Christian payer in sport, and spiritual well-being in sport performance.

Spirituality and Flow

Only recently have studies in the area of sport and spirituality emerged to investigate their degree of congruence. Dillon and Tait (2000) observed that “There appears to be a public

resurgence in interest in spirituality, and this interest has been mirrored in athletic activities. Many professional sports teams now hold church services on Sundays and many college teams have followed their lead” (p. 93). Their observation led to a groundbreaking investigation which explored the relationship between spirituality and the positive state of “being in the zone” or *flow*, a term that was first coined by Csikszentmihalyi (1975) denoting “the wholistic sensation present when we act with total involvement. It is the kind of feeling after which one nostalgically says: ‘That was fun,’ or ‘That was enjoyable’” (p. 43).

Dillon and Tait’s (2000) study was the first to investigate the relationship between spirituality and being in the positive state of flow. The researchers framed flow in terms of “total engrossment, effortlessness, and transcendence of self,” whereas spirituality was defined as “experiencing the presence of a power, a force, an energy, or a God close to you” (pp. 92-93).

The study’s sample size consisted of 62 Division III college athletes. For data collection purposes, the researchers developed two Likert scale tests: The Zone Test (ZT) and the Spirituality in Sports Tests (SIST). The researcher’s hypothesis that “being more spiritual in sports is related to being in the zone more often,” was found to be statistically significant (Dillon & Tait, 2000, p. 96). However, since the study was correlational in nature, the researchers admitted that the exact relationship between spirituality and flow was unknown and elaborated, “spirituality may lead to more experiences in the zone, or experiences in the zone may lead to more experiences of spirituality, or a third variable like propensity to altered states of consciousness. . . may [also] account for this relationship” (p. 97).

In a more recent study, Spittle and Dillon (2014) also explored the relationship between spirituality and flow. The study was conducted among 93 (30 = male, 63 = female) competitive golfers. Based on previous research (Dillon & Tait, 2000), the researchers anticipated a

congruency between spirituality and flow. Surprisingly, the results suggested that spirituality is not important to experiencing flow in golf. The researchers concluded that while “Sport is not purely rational and mechanical, studies such as this one promotes the need to humanize sport . . . sport psychologists, athletes, and coaches might consider finding deeper meaning and significance in sport and greater awareness of mind, body, and spirit” (Dillon & Tait, 2000, p. 8).

Christian Prayer in Sport

Czech, Wrisberg, Fisher, Thompson and Hayes (2004) explored the significance of Christian prayer in sport through a phenomenological study of Christian prayer in sport. The researcher selected nine NCAA Division I Christian athletes for the study. The investigation yielded four major themes that characterized the athletes’ perception of prayer in sport: (1) performance related prayers – prayers utilized to help enhance performance before, during and after competition, (2) prayer routine – the specific religious rituals performed before, during, and after performance, (3) thankfulness, and (4) acceptance of God’s Will (Czech et al., 2004). Additionally, the study found that Christian athletes utilized prayer as a helpful mechanism for overcoming athletic related stresses as well as to cope with uncertainty, whether it was to relieve the nervousness about a performance or the anxiety of facing an injury. Consistent with this finding, Coakley (2017) also suggested that athletes, coaches and teams use religious rituals, including prayer, “to cope with uncertainty, to stay out of trouble, to give meaning to sport participation, to put sport participation into a balanced perspective, to establish team solidarity and unity, [and] to achieve personal and competitive success” (p. 501).

Murray, Joyner, Burke, Wilson and Zwald (2005) researched the impact of prayer in sport. Their study sought to understand the relationship between prayer and team cohesion among college level softball players. What added to the uniqueness of the study was its focused

sample; all participants ($N = 92$) were NCAA Division I female athletes. The study utilized two instruments for data collection: an 18-item questionnaire that measured team cohesion and a 10-question test which measured individual spirituality in the athletic setting. The study found that athletes “who reported spending individual time praying for teammates demonstrated significantly higher levels of spirituality in sport than those who did not pray individually” (p. 235). Furthermore, the researchers concluded “Integration of one’s spirituality with daily activities indicates a more intrinsic religious orientation” (p. 235). Moreover, the findings of this study support the biblical understanding of personhood put forth by other scholars (Nesti, 2007; Watson, 2011; Wright, 2011).

Czech and Bullet (2007) conducted a mixed methodological pilot study which also examined the perception of prayer among Christian athletes. The study’s sample consisted of 19 NCAA Division II athletes (nine men; ten women) from four different sports (women’s basketball, men’s and women’s track & field, and men’s football and baseball). Data were collected via personal interviews and two survey instruments: a prayer effectiveness survey and a religious behavior survey. Both surveys utilized a 10-point Likert scale (1 = strongly disagree to 10 = strongly agree). The findings of Czech and Bullet’s (2007) study were congruent with Czech et. al (2004) study in relation to the practice of prayer. The participants in the 2007 study viewed prayer as a coping mechanism in stressful situations and “17 out of the 19 athletes [did] not pray to win, but [prayed] for safety, to play to the best of their ability, and to give glory to a higher being after success” (Czech & Bullet, 2007, p. 55).

Spiritual Well-being and Sport Performance

Ridnour and Hammermeister (2008) investigated the role of spiritual well-being and its impact on sport performance. The researchers admitted, “Although the evidence is increasing

that spirituality may aid athletes, the proof that confirms this is far from conclusive” (p. 83). Thus, the purpose of their study was to explore “the hypothesis that spiritual well-being may positively influence psychological variables, such as athletic coping skills, that are important for sport performance” (p. 81). The study’s sample size consisted of 142 NCAA Division I athletes; 68% of the sample was male, while 32% were female ($M = 19.9$, $SD = 1.46$). Participants completed three questionnaires: a demographic questionnaire; the Spiritual Well-Being Scale (SWBS); and the Athletic Coping Skills Inventory (ACSI). The SWBS and ACSI instruments were not developed by the researchers, but rather the SWBS instrument was developed by Ellison (1982). At the time of the study, Ridnour and Hammermeister (2008) reported that the SWBS instrument had been “used in over 300 research endeavors and [had] consistently demonstrated its validity and reliability in measuring spiritual health” (p. 84). The study’s second major instrument, the ACSI, was developed by four researcher, Smith, Smoll, Schutz and Ptacek (1995) and consisted of 28 self-report questions which were scored on a 4-point Likert scale.

The results of the study were congruent with Dillon and Tait’s (2000) research in that both studies suggested a connection between spirituality and an athletes’ psychological profile for sport. Additionally, Ridnour and Hammermeister (2008) reported, “The athletes in this study who strongly displayed the characteristics of spiritual well-being arguably presented a ‘mentally tougher’ profile for sport than their peers who had a less powerful display of the spiritual well-being characteristics” (p. 88). The connection between spirituality and mental toughness is particularly interesting in light of Dweck’s (2016) research on mindsets.

The Christian Athlete and the Nature of Athletic Competition

The Czech and Bullet (2007) study also found that the majority (84%) of the participants were of the opinion that “‘competitiveness, playing overly hard and aggressive, and wanting to win at all costs’ are part of sports and religious beliefs do not influence these attributes” (p. 55). This finding creates the grounds for an ethical discussion on the Christian athlete and the nature of competition.

Scholars (Hoffman, 2010; Spencer, 2000) have identified that athletic competition can be a mean-spirited, cutthroat, win-at-all-costs environment where victory comes at the expense of a defeated opponent. This type of environment may cause friction within the Christian athlete, namely because the nature of competition may clash with Christian attributes listed in the New Testament (Matthew 5:1-7:29, Galatians 5:22-23, NIV). For instance, Jesus’ Sermon on the Mount, recorded in the Gospel of Matthew, is difficult to conceptualize in an athletic setting in which those who win are blessed and those who lose mourn.

Hoffman (2010) highlighted this conflict with the example of Andrea Jaeger, who in the mid-1980s reached the number two ranking in women’s professional tennis, followed her spiritual convictions and left the professional tennis circuit to become an Episcopal nun. According to Hoffman, Jaeger “‘realized that her faith could no longer allow her to play her hardest when doing so brought so much disappointment and suffering to those who were victims of her talent” (p. 163). While empathy and compassion are central to Christian spirituality, they are not easily assimilated into the competitive athletic context. In fact, Hoffman further noted: “‘Competitive sports, competitive politics, competitive business – *anything* competitive is always treacherous ground for Christians to tread, for it threatens to realign human relationships and sever bonds of fellowship that their faith enjoins them to protect and nurture” (p. 164). Jaeger’s

decision to walk away from professional sport is a radical demonstration of a commitment to follow the way of Jesus, no matter the cost. It is also a clear indication that the perceived centrality of an athlete's spirituality can override all other earthly aspirations.

On the other hand, scholars Shields and Bredemeier (2009) have offered a helpful insight that requires a fundamental paradigm shift in the way athletes approach competition. They remind the reader that:

the word competition comes from the Latin *-petere*, meaning "to strive" or "to seek," combined with the prefix, *com-*, meaning 'with.' So, the root meaning of competition is "to strive or seek with." It is not "to strive *against*," but 'to strive *with*." True competition involves striving together; it involves seeking excellence together. (pp. 24-25)

Admittedly, Shields and Bredemeier agreed the idea of competition as striving with an opponent is fairly fragile, however, it does offer the athlete an opportunity to shift mindsets from an outcome orientation (winning) to a process orientation (improving) view of competition.

Clearly, outcome orientation has become the norm of competition. Athletes who are outcome-oriented value winning above all else "because the key values to be gained from the contest are tied to the outcome" (Shields & Bredemeier, 2009, p. 45). Winning is everything. What adds to the allure of outcome orientation in competition the greater the win-loss ratio, the more likely it is that the athlete will receive playoff eligibility, a higher national ranking, scholarships to college, and sponsorship deals from sports apparel manufacturers. However, the outcome orientation in contemporary sports has not come without a price, as Spencer (2000) noted:

There is a growing belief that sport [in America], rather than encouraging moral virtue and spiritual values, promotes just the antithesis: man's inevitable fall from grace through egotism, cynicism, nihilism, an obsessive focus on money, and win at all costs [outcome-orientation] mentality that fosters disrespect for competitors and society. There are frequent news reports about athletes who violate both civil and moral behavioral codes through alcohol and drug abuse, gambling, theft, promiscuity, violence, and even murder. (p. 143)

The Christian athlete, then, is hard pressed, since the Christian worldview is "based on an absolute, immutable, justice-loving God [and] the worldview of sports is based on material success [and winning at all cost]" (Hoffman, 2010, p. 11).

According to Watson and White (2007), the root cause of an outcome-oriented view of sports is pride. They went on to state, "Considering that the postmodern consciousness is characteristically self-centered and self-sufficient and the world of sport is a naturally competitive environment, the potential for pride to corrupt and alienate is ever present" (p. 68). From a theological perspective pride, according to Christian apologist C. S. Lewis, "is *essentially* competitive by its very nature...Pride gets no pleasure out of having something, only out of having more of it than the next man" (Lewis, 1952, p. 122).

While the temptation for pride exists in competitive sports, there is no need for the Christian athlete to reject competitive sports altogether. In fact, from a biblical perspective, the depravity of our world is a result of sin (Genesis 3), and the Christian is called to work out his or her salvation in the context of a fallen world because God is at work in the Christian's life "to will and to act in order to fulfill his good purpose" (Philippians 2:12-13, NIV). The competitive athletic context then becomes a context in which the Christian athlete, in the humility of Christ,

can shine the light of Christ before others so even the athletic world “may see [the athlete’s] good deeds and glorify [their] Father in heaven” (Matthew 5:16, NIV).

As far as the process-oriented approach to competition, it is important to realize it does not eliminate the desire to win but, rather, offers a more multidimensional approach to competition. Shields and Bredemeier (2009) emphasized that competition provides the context and “...the opportunity to develop mastery and cultivate excellence. Success is measured according to the effort exerted and the personal goals achieved” (p. 40). This approach to competition and success is reminiscent of Coach Wooden’s (1910-2010) philosophy. Wooden, the legendary 10-time NCAA championship head coach of UCLA, stated “losing is not the end of the world, nor does victory put me on top of it – not even a national championship. There is something beyond, something even greater than winning the race” (Wooden & Jamison, 2005, p. 7). For Wooden, wins and losses were a by-product of the overall process. His philosophy was more focused *how* his athletes and teams prepared for competition. Wooden understood winning was not everything; rather the process of “striving together” with his team toward a goal was the measure of success, and perhaps even the nature of true competition. Wooden’s famous definition of success captures the heart of process-oriented competition: “Success is peace of mind which is a direct result of self-satisfaction in knowing you made the effort to become the best of which you are capable” (Wooden & Jamison, 2005, p. 8).

In conclusion, process-oriented athletes “recognize that the value of the desire to win resides largely in its capacity to drive the competitive partnership” (Shields & Bredemeier, 2009, p. 44). This approach facilitates an upward spiraling movement in which both competitors push one another to be their best. The researchers concluded that “Competitors appreciate the

mutuality inherent in their partnership with an opponent. They recognize that all talent is fundamentally shared talent” (p. 101).

Athletes and the Growth Mindset

Dweck’s (2016) research examined the mindsets of a number of former high-profile athletes. Specifically, Dweck observed the way athletes perceive failures and obstacles dramatically impacts their endeavors. She stated that “Exceptional people seem to have a special talent for converting life’s setbacks into future successes” (p. 11). In her research, Dweck outlines two types of individuals: fixed mindset and growth mindset people. Contextually speaking, a fixed mindset athlete assigns blame, makes excuses, gets defensive, and ignores useful feedback. Conversely, a growth mindset athlete embraces challenges, views setbacks as motivating, and learns from failures.

Dweck (2016) defined the growth mindset as “the mindset that allows people [athlete’s] to thrive during some of the most challenging times in their live” (p. 7). Michael Jordan, according to Dweck, was a growth mindset athlete. He embraced his failures and used them as fuel for becoming better. Jordan “was cut from the high school varsity team...He wasn’t recruited by the college he wanted to play for... [and] He wasn’t drafted by the first two NBA teams that could have chosen him” (Dweck, 2016, pp. 85-86). Yet, these setbacks did not deter Jordan and Dweck credits Jordan’s success to his ability to view failures as opportunities for growth: “Those with the growth mindset found success in doing their best, in learning and improving. And this is exactly what we find in champions” (p. 98).

Similarly, Anshel (2016) believed trial and error often are the very ingredients for success in life and in sports. According to him, “Failure should be a useful experience, but it is useless if performers [athletes] do not learn from the experience...feeling comfortable with failure requires

forgetting about traditional interpretations of failure” (Anshel, 2016, p. 159). Both the growth mindset and the trial-and-error disposition highlight that failures are simply events; they should never become the building blocks of an athlete’s identity. With the right perspective, then, the athlete can use failures to ignite a passion for learning, growing, and developing skills.

John McEnroe, according to Dweck (2016), was a fixed mindset athlete, who “could never stand the thought of losing . . . in 1979, he played mixed doubles at Wimbledon. He didn’t play mixed doubles again for twenty years. Why? He and his partner lost in three straight sets” (Dweck, 2016, p. 100). For the fixed mindset athlete, failures are unacceptable, fruitless, and detrimental to their self-esteem. As a result, they are likely to quit, assign blame, or make excuses for the reason they lost. Furthermore, Dweck (2106) noted McEnroe never took ownership for the losses or failures he encountered on the tennis court:

It was never his fault. One time he lost a match because he had a fever. One time he had a backache. . . One time he lost to a friend because the friend was in love and he wasn’t. . . One time it was too cold, another time too hot. One time he was undertrained, another time overtrained. (p. 36)

Fixed mindset athletes do not thrive in the midst of challenging circumstances, whereas growth mindset athletes do.

Mental Toughness and the Growth Mindset

The growth mindset is similar to mental toughness, an emerging term used in the field of sport psychology (Micoogullari, Odek, & Beyaz, 2017; Zeiger & Zeiger, 2018). Essentially, mental toughness describes an athlete’s ability to excel at an optimal level in the midst of stressful competition or, as Buhrow et al. (2017) defined it, “the ability to cope with both the stressors of sport and also allows one to perform with consistency and control, especially during

pressure situations” (p. 44). In similar fashion, Jones, Hanton and Connaughton (2007) developed a helpful framework for understanding the nuances of mental toughness. Their framework includes four dimensions which enable the athlete to better cope with sport-related pressures and grow as competitors. These four components are: (1) attitude or mindset, (2) training, (3) competition, and (4) post-competition.

The first component of the mental toughness framework of Jones et al. (2007) bares similarities to what Dweck (2016) defined as the growth mindset. Dweck linked the growth mindset to an ability which “allows people [athletes] to thrive during some of the most challenging times in their lives” (p. 7). Jones et al. (2007), on the other hand, related mental toughness to the athlete’s “unshakable self-belief [and] refusal to be swayed by short-term gains (financial, performance) that will jeopardize the achievement of long-term goals” (p. 250). Here, an important caveat is for the Christian athlete to recognize the danger of overemphasizing the value of self-reliance. While both self-belief and focus are important components of athletic competition, the Christian athlete’s ability to perform at an optimal level in high pressure situations is not rooted in the humanistic tendencies of popular psychology. For the Christian athlete, an unshakable faith in God is the foundation for optimal athletic performance in high pressure situations (Romans 12:2; Philippians 4:13, NIV).

The second component of the Jones et al. (2007) framework is training. The athlete demonstrates resilience in the midst of difficult training sessions as well as when goals and aspirations are not attained as quickly as anticipated. The athlete finds enjoyment in the pains of training and displays “patience, discipline, and self-control with the required training for each specific developmental stage” (p. 250). For the Christian athlete, the training phase also offers

the opportunity for faith integration. Spiritual disciplines like patience, self-control, and perseverance can aid the development of mental toughness in the Christian athlete in the training phase (Galatians 5:22-23; Hebrews 12:1-3, NIV).

The third component in the mental toughness framework is competition. Athletic competition offers the athlete the opportunity to make “the correct decision and choosing the right options that secure optimal performance under conditions of extreme pressure and ambiguity” (Jones et al., 2007, p. 251). Mental toughness also is displayed and developed in the midst of competition when athletes commit to their performance goal in such a way that they make every feasible effort to secure success; mental toughness is the resolve not to give up, no matter the outcome (Jones et al., 2007).

The fourth area of mental toughness is post-competition. It is specifically displayed in the way the athlete handles failures and successes. Mentally tough athletes use “failure to drive [themselves] to further success” (Jones et al., 2007, p. 251). As such, they demonstrate the traits of growth mindset athletes like Michael Jordan and use failures as opportunities to become better competitors. Jones et al. (2007) were correct to note success offers an opportunity for the athlete to demonstrate mental toughness. They explained, “Mentally tough performers know or understand what to take away from success, how long they can live in the glory of success, and when it is time to move on and get back to focusing on the next challenge” (p. 259).

Zeiger and Zeiger (2018) conducted a quantitative study on mental toughness among 1,245 endurance athletes (47% male, 53% female). Their study approached mental toughness as “a personal capacity to produce consistently high levels of subjective or objective performance despite everyday challenges and stressors as well as significant adversities” (p. 2). Additionally,

mental toughness was classified as consisting of eight dimensions: (1) confidence, (2) constancy, (3) control, (4) determination, (5) visualization, (6) positive cognition, (7) self-belief, and (8) self-esteem. The survey utilized three measurement tools to determine the athlete's mental toughness profile. The researchers concluded that athletes with lower levels of mental toughness can develop mental toughness and consequently increase their proficiency in their sport (Zeiger & Zeiger, 2018). Moreover, the study found "self-belief" ($M = 36.68$, $SD = 3.37$) to be the most significant variable associated with mental toughness: "...athletes ranked self-belief as the most important dimension of MT [Mental Toughness]..." (p. 11).

The study's premise was built on an understanding that an athlete's physical training bears certain limits, in that "overtraining can lead to injuries, burnout, or performance decrements ...while detecting and training weaknesses in MT have no such limitations" (p. 1). Whether mental toughness training is limitless is speculative. Furthermore, the dualistic (mind-body) approach of this study failed to consider whether an athlete's spirituality had any impact on their perception of mental toughness. The omission of this feature is particularly interesting in light of Ridnour and Hammermeister (2008) research because their study found that athletes who displayed the characteristics of spiritual well-being "presented a 'mentally tougher' profile for sport than their peers who had a less powerful display of the spiritual well-being characteristics" (p. 88).

Chapter Summary

This chapter provided a literature review relevant to the centrality of spirituality in the athletic context. The Christian anthropological view of personhood as it relates to athletes was established. Next, the review discussed Christian spirituality and spiritual formation as they relate to the Christian athlete. The review also extrapolated on past studies in the area of sport

and spirituality. These included spirituality and flow, Christian prayer and sports, as well as spiritual well-being and sports performance. The next section of the study discussed the Christian athlete and the nature of athletic competition. The final two sections of the review focused on research related to mindsets and mental toughness in athletic competition. Chapter III provides a description of the methodology used in this research study.

III. METHODOLOGY

Introduction

This chapter contains the methods used in the descriptive study of the perceived centrality of spirituality in competition among undergraduate student athletes at a private, Christian, liberal arts university. The correlational research converged from a quantitative perspective with multiple regression analyses. Additionally, this chapter features discussion on the research context, participants, instrumentation, procedures, data analysis, and a summary.

Context

From a biblical anthropological perspective, personhood is richly integrated in body, mind, and spirit (Coe, 2014; Fritschel, 2014; Hemphill, 2015; McArdle, 2014; Peters, 2005; Turner, 2013; Watson, 2011; Wright, 2011). The holistic composition of individuals in general, and athletes in particular, entails that spirituality is interlocked in the athlete's overall design and the athlete's entire personhood is invested in the contest.

This research study sought to identify the perceived centrality of spirituality in athletic competition and took place at a private Christian university in central Florida during a spring semester. The university, which was founded in 1935, celebrates a rich 83-year history of equipping students to go into the world as influential servant leaders. Named as one of the fastest growing liberal arts universities in the nation, the university's athletic program also is

growing, offering a total of 16 sports including football and wrestling that compete in the National Association of Intercollegiate Athletics (NAIA).

Participants

A total of 65 student-athletes were approached. The first 53 athletes who provided an email address were invited to participate in the study. The study's yield rate was 81.5%. The sample selected for the current study was non-probability in nature. More specifically, the sample was both convenient and purposive, in that it consisted of 53 student athletes at the subject university. The participants were 18 years or older and were emailed an invitation to complete an online survey consisting of 16 questions. The survey was designed by the researcher and hosted by Qualtrics, an experience management software company that allows users to collect and analyze data for research purposes (see Appendix A: Sports and Spirituality Survey and Appendix B: Voluntary Consent Form). Protecting participant privacy also was taken into account. The Qualtrics platform protected all survey participants by using the latest encryptions, ciphers, and industry best standards for safeguarding user privacy. There were also no anticipated risks or benefits for participating in this study. Individuals were informed that survey participation was completely voluntary, and they were free to withdraw from the study at any time, without any negative effects on their academic or athletic status. Participants also were invited to contact the Internal Review Board (IRB) with any questions or concerns relating to the study. In addition, the researcher provided an email address for them to obtain a copy of the results of the study once complete.

Instrumentation

The researcher created a 16-question Sports and Spirituality survey which was utilized to yield data for the purpose of addressing the study's research questions (see Appendix C). Study participants reported their levels of agreement on a 7-point Likert scale (1 = *strongly agree*, 7 = *strongly disagree*) to statements that centered on the topic of the perceived centrality of spirituality in the midst of competition.

The first four questions were designed to gather demographic data. Participants were asked to denote their gender; racial or ethnic identity; level of standing (freshman, sophomore, junior, senior); and whether they were a Born-Again Christian (see Appendix A for survey questions).

The research instrument included four questions (5, 6, 7, and 8) that assessed the student athlete's practice of spiritual disciplines prior, during, and after athletic competition. Student athletes were asked to rate their level of agreement with the statement, "In preparation for an athletic contest I read religious texts." Question 9 was designed to gauge the participant's view of athletic-related failures, specifically, the degree to which failures were seen as opportunities to grow. Question 12 sought to identify the degree to which the participant integrated spirituality (meditation/worship) into overcoming athletic-related failures and disappointments.

Six questions (10, 11, 13, 14, 15, and 16) were specifically directed toward measuring the perceived centrality of spirituality in athletic competition. Participants were asked to rate their agreement with statements such as, "I value the importance of the interrelationship that the spiritual, physical, and the mental aspects of my being play in athletic competition," and "I consider spirituality as a central element in my engagement in athletic competition." Individuals

were also asked to rate their perception of whether spiritual depth held greater importance than either physical strength or mental toughness in athletic competition.

Procedures

By means of addressing the stated research problem regarding the degree to which spirituality is central in athletic competition, the following research questions were posed:

1. To what degree do study participants perceive Christian spirituality as central to subsequent engagement in athletic competition?
2. Considering participant preferred sport, and cultural environment associated with the preferred sport, which represents the most robust, statistically significant correlate and predictor of perceived centrality of spirituality in athletic competition?
3. Considering participant gender, ethnicity, education level, and religious preference, which represents the most robust, statistically significant correlate and predictor of perceived centrality of spirituality in athletic competition?
4. Considering participant perception of importance of praying before, during, and after an athletic completion, which represents the most robust, statistically significant predictor of perceived centrality of spirituality in athletic competition?
5. Considering participant perception of the importance of spiritual depth over physical and mental toughness; interrelated balance of spiritual, physical, and mental aspects of being; and perceived importance of spirituality in and outside of competition, which represents the most robust, statistically significant predictor of perceived centrality of spirituality in athletic competition?
6. Considering participant perception of the centrality of spirituality in athletic competition, the reading of religious texts before athletic competition, and the posture

that one's failures or mistakes are viewed as opportunities to grow, which represents the most robust correlate and predictor of the athlete's perception of prayer/meditation as a means of overcoming feelings of disappointment after a defeat?

Data Analysis

Data for the research questions were collected utilizing Qualtrics, an online survey tool. Participants were emailed a secure link to the survey. Prior to beginning the survey, participants were asked for informed consent (see Appendix B: Voluntary Consent Form). To protect privacy, survey information was password protected and encrypted on the Qualtrics website. While demographic characteristics were collected and utilized as part of the analysis, no participant identifiers were gathered in the survey. Study data were imported into Statistical Package for the Social Sciences Version 24 (SPSS) for analysis purposes. The SPSS platform is an analytic software package commonly used in statistical analysis.

Prior to addressing the stated research questions in the study, preliminary analyses were conducted. Specifically, missing data, internal consistency (reliability) of participant response to the study's research instrument, and essential demographic data were analyzed using both descriptive and inferential statistical techniques.

The study's data set reflected no missing data. In light of the 100% response rate to the study's research instrument, imputation of missing data using expectancy maximization (EM) or multiple imputations (MI) were not considered necessary for subsequent analytic purposes.

The internal consistency or reliability of participants to the survey items was addressed through the application of Cronbach's alpha (α) test statistic. The statistical significance of α was assessed through the F -test. The value of $p < .05$ was considered statistically significant.

The study's essential demographic information was assessed using descriptive statistical techniques. The mean, standard deviation, frequency counts (n), and percentages (%) represented the primary methods of descriptive analysis.

First Research Question

The first research question addressed both descriptive and inferential statistical techniques. Measures of central tendency (mean scores), variability (standard deviations), and percentages represented the primary descriptive statistical techniques that were applied. The single sample *t*-test represented the inferential statistical technique by which respective mean score comparisons were evaluated for statistical significance, with the null value of 3 which was used for statistical significance of finding. The threshold value for statistical significance was $p < .05$. The magnitude of effect (effect size) was assessed using Cohen's *d*. Cohen's conventions represented the guideline for the interpretation of all effect size values. The *t*-test of independent means and one-way analysis of variance (ANOVA) were utilized for subsequent follow-up analyses involving between-subjects comparisons inherent in the first research question. The threshold value for statistical significance was established at $p < .05$. The magnitude of effect (effect size) was assessed using Cohen's *d*.

Research Questions Two Through Six

The five remaining research questions were associative and predictive in nature. As such, the Pearson product-moment correlation coefficient was used to assess the mathematical relationships of respective variables inherent in all five questions. Mathematical relationships manifesting *p*-values of .05 or less were considered statistically significant. A multiple linear regression was utilized to assess the predictive aspect of the four research questions. Predictive model fitness was assessed through ANOVA Table *F*-values. ANOVA values of $p < .05$ were

indicative of predictive model fitness. Adjusted R^2 values represented the basis for the evaluation of predictive effect. The formula $\text{Adjusted } R^2 / 1 - \text{Adjusted } R^2$ was used to calculate the effect size of the predictive model. Values of .35 or greater were considered large predictive effect sizes. The statistical significance of predictive effect was interpreted through the respective slope (t) values of independent predictor variables.

Chapter Summary

The purpose of this research study was to examine the perceived centrality of spirituality in the midst of athletic competition. This chapter discussed the methodology which was utilized in the study. The contextual setting, as well as the study participants, were discussed. The chapter also discussed the instrument and procedures used to gather and analyze the data. The methodology included a single sample t -test with an alpha level of .05 to test for statistical significance. The Pearson product-moment correlation coefficient (r) was used to assess the mathematical relationships of respective variables inherent in the second, third, fourth, and fifth research questions. Mathematical relationships manifesting p -values of .05 or less were considered statistically significant. The .05 alpha level was used as the threshold for statistical significance when determining whether a mathematical relationship existed between variables. Chapter IV provides a description of the results obtained using this methodology.

IV. RESULTS

Introduction

This chapter contains the results of the descriptive study which surveyed Christian athletes at a private, Christian, liberal arts university with specific emphasis upon the perceived centrality of Christian spirituality in athletic competition. Additionally, emphasis was placed upon the role of spiritual disciplines in athletic competition, as well as participant perceptions regarding the importance of an athlete's spiritual depth over physical and mental toughness in the competitive arena of sports.

Preliminary Analyses

A variety of preliminary analyses were conducted using the study's data set in advance of the analytics and reporting of findings for the research questions posed. Specifically, missing data, internal consistency (reliability) of participant response to the study's research instrument, and essential demographic data were analyzed using both descriptive and inferential statistical techniques.

Missing Data

The study's data set reflected no missing data. In light of the 100% response rate to the study's research instrument, imputation of missing data using expectancy maximization (EM) or multiple imputations (MI) were not considered necessary for subsequent analytic purposes.

Internal Reliability

The omnibus internal reliability of participants to the study's research instrument items was $a = .88$; $p < .001$. The omnibus internal reliability value manifested in the current study far exceeds that which might be expected for researcher-developed instruments ($a = .70$). All evaluations of internal reliability of participant response to the research instrument (survey) by essential demographic identifier exceeded the Cronbach's alpha level of .80.

Table 1 contains a summary of disaggregated internal reliability values manifested according to essential participant demographic identifiers.

Table 1

Internal Reliability Values by Demographic Identifier

Participant Demographic Identifier	A
Female	.91***
Male	.86***
White/Caucasian	.87***
Black/African American	.88***
Hispanic/Latino(a)	.89***
Sophomore Class	.80***
Junior Class	.90***
Senior Class	.86***
Born-Again	.87***
Not Born-Again	.93***

*** $p < .001$.

Essential Demographic Information

Regarding gender of study participants, slightly over 7 in 10 were male ($n = 38$; 71.7%), with the remaining 28.3% ($n = 15$) identified as female. An overwhelming majority of participants identified as Born-Again (88.7%), with the remaining 11.3% stating that they were Not Born-Again (Table 2).

Table 2

Sport and Spirituality Survey Questions 4 Descriptive Statistics

#	Question	Yes	No	Min.	Max.	Mean	SD	Variance	Count
4	I consider myself a Born-Again Christian:	89%	11%	1.00	2.00	1.11	0.32	0.10	53

Slightly over half (52.8%) identified as White/Caucasian by ethnicity ($n = 28$), with slightly over a quarter of participants (26.4%; $n = 14$) identified as Black/African American. The remaining 20.8% ($n = 11$) of the study's sample identified themselves as Hispanic/Latino(a) (see Table 3).

Table 3

Sport and Spirituality Survey Questions 1 and 2 Descriptive Demographics

#	Question	Male	Female	Caucasian	African-American	Hispanic
1	Gender	72%	28%			
2	Racial or ethnic identity			52.83%	26.42%	20.75%

Participants who identified as a Junior represented the single greatest frequency and percentage when considering university class designation ($n = 22$; 41.5%). The study's sample

was nearly evenly split between Sophomores ($n = 15$; 28.3%) and Seniors ($n = 14$; 26.4%). Only two individuals were identified as being Freshmen, comprising 3.8% of the sample (Table 4).

Table 4

Sport and Spirituality Survey Questions 3 Descriptive Demographics

#	Question	Freshman	Sophomore	Junior	Senior
3	Grade:	3.77%	28.30%	41.51%	26.42%

Analysis and Findings by Research Question

Research Question 1: To what degree do study participants perceive Christian spirituality as central to subsequent engagement in athletic competition?

Research Question 1 was addressed using both descriptive and inferential statistical techniques. Study participant responses with the notion of the centrality of the role of spirituality in athletic competition reflected a high degree of agreement (77.4%), with a mean score of 5.34 ($SD = 1.29$). Using the single sample t -test, it was determined that the mean score in the first research question was manifested at a statistically significant level ($t_{(52)} = 7.59$; $p < .001$). Moreover, the magnitude of effect (effect size) of $d = 1.04$ using the Cohen’s d test statistic for the finding was considered large ($d \geq .80$).

In light of the findings, a between-subjects evaluation of participant perception of Centrality of Spirituality in Athletic Competition was conducted between and among essential study demographic identifiers. The t -test of independent means test statistic was used in comparisons involving two distinct mean scores, and the one-way analysis of variance (ANOVA) test statistic was used in comparisons involving more than two mean scores.

In all between subjects comparisons conducted, whether by *t*-test of independent means or one-way ANOVA, none of the mean score comparisons were found to reach a statistically significant level ($p < .05$). The findings indicate an unbiased impact across the essential participant demographic identifiers upon the variable of Centrality of Spirituality in Athletic Competition.

Table 5 contains a complete summary of findings for the impact of essential participant demographic identifiers upon perceived Centrality of Spirituality in Athletic Competition.

Table 5

Summary of Demographic Variable Comparisons: Centrality of Spirituality in Athletics

Demographic Variable	<i>t/F</i>	<i>df</i>	<i>p</i> *
Gender	0.02	51	.98
Ethnicity	0.53	2, 50	.59
Class Designation	0.52	3, 49	.67
“Born-Again” Status	0.68	51	.50

* $p > .05$.

Research Question 2: Considering participant preferred sport, and cultural environment associated with the preferred sport, which represents the most robust, statistically significant correlate and predictor of perceived centrality of spirituality in athletic competition?

Using the multiple linear regression test statistic for predictive modeling purposes, it was determined that one of the independent predictor variables in the predictive model (Participant Preferred Sport) represented statistically significant predictors of perceived centrality of spirituality in athletic competition. The predictive model was found to be viable ($F_{(2, 50)} = 13.85$;

$p < .001$). The confluence of the two independent predictor variables accounted for 35.6% of the explained variance in the model's dependent variable ($R^2 = .356$), representing a large predictive effect ($d = 1.12$). The independent predictor variable of Preferred Sport manifested the greatest degree of relationship with the dependent variable ($r = .48$) of the two independent variables in the predictive model, reflecting a moderate predictive effect ($d = .62$).

Table 6 contains a complete summary of the predictive model findings inherent in the second research question.

Table 6

Predicting Centrality of Spirituality in Athletic Competition

Model	β	SE	Standardized β
Intercept	1.93	0.79	
Preferred Sport	0.39	0.10	.48***
Cultural Environment of Preferred Sport	0.25	0.15	.22

*** $p < .001$

Research Question 3: Considering participant gender, ethnicity, education level, and religious preference, which represents the most robust, statistically significant correlate and predictor of perceived centrality of spirituality in athletic competition?

Using the multiple linear regression test statistic for predictive modeling purposes, it was determined that none of the four independent predictor variables in the third research questions predictive model represented statistically significant predictors of Centrality of Spirituality in Athletic Competition. The predictive model was not found to be viable ($F_{(4, 48)} = 0.36; p = .83$). The confluence of the four independent predictor variables accounted for 2.9% of the explained

variance in the model's dependent variable ($R^2 = .029$), representing an overall weak predictive effect ($d = .06$). The predictor variable of Class Identifier represented the most robust correlate of the three independent variables in the predictive model ($r = .15$; $p = .34$).

Table 7 contains a complete summary of the predictive model findings inherent in the third research question.

Table 7

Predicting Centrality of Spirituality by Independent Demographic Identifier Variables

Model	β	SE	Standardized β
Intercept	4.18	1.05	
Gender	0.22	0.46	.08
Ethnicity	0.01	0.24	.01
Class Identifier	0.23	0.24	.15
Born-Again Status	0.35	0.60	.09

Research Question 4: Considering participant perception of importance of praying before, during, and after an athletic completion, which represents the most robust, statistically significant predictor of perceived centrality of spirituality in athletic competition?

Using the multiple linear regression test statistic for predictive modeling purposes, it was determined that one of the independent predictor variables in the predictive model represented a statistically significant correlate ($r = .40$; $p = .003$) and predictor of Centrality of Spirituality in Athletic Competition. The predictive model was found to be viable ($F_{(3, 49)} = 5.53$; $p = .002$). The confluence of the three independent predictor variables accounted for 25.3% of the

explained variance in the model's dependent variable of ($R^2 = .253$), representing a moderate predictive effect ($d = .66$).

Table 8 contains a complete summary of the predictive model findings inherent in the fourth research question.

Table 8

Predicting Centrality of Spirituality in Athletic Competition: Occasion of Prayer

Model	β	SE	Standardized β
Intercept	0.59	1.41	
Prayer Before	0.19	0.22	.12
Praying During	0.14	0.14	.13
Prayer After	0.46	0.15	.40**

* $p = .003$

Research Question 5: Considering participant perception of importance of spiritual depth over physical and mental toughness; interrelated balance of spiritual, physical and mental aspects of being; and perceived importance of spirituality in and outside of competition, which represents the most robust, statistically significant predictor of perceived centrality of spirituality in athletic competition?

Using the multiple linear regression test statistic for predictive modeling purposes, it was determined that one of the independent predictor variables (Interrelationship of the Spiritual, Mental and Physical Elements in Athletics) in the predictive model represented a statistically significant correlate ($r = .50$; $p < .001$) and predictor of Centrality of Spirituality in Athletic Competition. The predictive model was found to be viable ($F_{(3, 49)} = 51.82$; $p < .001$). The confluence of the three independent predictor variables accounted for 49.2% of the explained

variance in the model’s dependent variable of ($R^2 = .492$), representing a very large predictive effect ($d = 1.92$).

Table 9 contains a complete summary of the predictive model findings inherent in the fifth research question.

Table 9

Predicting Centrality of Spirituality in Athletic Competition

Model	β	SE	Standardized β
Intercept	0.31	0.75	
Spiritual Depth	0.14	0.11	.15
Spirituality “On/Off” Field	0.20	0.12	.20
Interrelation of Spiritual, Mental & Physical Elements	0.56	0.14	.49***

*** $p < .001$

Research Question 6: Considering participant perceptions of the centrality of spirituality in athletic competition, the reading of religious texts before athletic competition, and the posture that one’s failures or mistakes are viewed as opportunities to grow, which represents the most robust correlate and predictor of the athlete’s perception of prayer/meditation as a means of overcoming feelings of disappointment after a defeat?

Using the multiple linear regression test statistic for predictive modeling purposes, it was determined that one of the three independent predictor variables (Centrality of Spirituality in Athletic Competition) in the predictive model represented a statistically significant correlate ($r = .39$; $p = .10$) and predictor of participant perception that Prayer and Meditation as a Means of Overcoming Feelings of Disappointment After a Defeat. The predictive model was found to be

viable ($F_{(3, 49)} = 10.90; p < .001$). The confluence of the three independent predictor variables accounted for 40% of the explained variance in the model's dependent variable of ($R^2 = .40$), representing a very large predictive effect ($d = 1.34$).

Table 10 contains a complete summary of the predictive model findings inherent in the sixth research question.

Table 10

Predicting Participant Perception that Prayer/Meditation Help Overcome Feelings of Disappointment after a Defeat

Model	β	SE	Standardized β
Intercept	0.85	1.12	
Centrality of Spirituality	0.50	0.18	.40**
Failures as Opportunities to Grow	0.21	0.18	.14
Reading Religious Texts Before Competition	0.32	0.20	.22

** $p = .10$.

Chapter Summary

The purpose of this chapter was to discuss the findings of the survey instrument used to examine the perceived centrality of spirituality in athletic competition. Six unique research questions were posed to address the stated research problem. The participants sample consisted of student athletes ($N = 53$) enrolled at a private, Christian, liberal arts university. A variety of preliminary analyses were conducted using the study's data set in advance of the analytics and reporting of the findings for the posed research questions. The study's data set reflected no missing data. The omnibus internal reliability of participants to the study's research instrument

items was $a = .88$; $p < .001$. The omnibus internal reliability value manifested in the current study was very high and exceeded that which might be expected for the researcher-developed instrument ($a = .70$). The final chapter, Chapter V, features a discussion of the data analysis results related to the perceived centrality of spirituality in athletic competition.

V. DISCUSSION

Introduction

As stated in Chapter I, this research study examined the perceived centrality of spirituality in athletic competition. This chapter presents a discussion on the data analysis results of the Sport and Spirituality survey which was utilized to address the research questions. In addition to several other findings, the data indicate the study's major variable, Centrality of Spirituality in Athletic Competition, is a statistically significant predictor for how athletes manage and cope with athletic-related failures.

Statement of the Problem

Sport and spirituality are an unlikely pairing, since matters of faith are transcendent and the nature of sport is more tangible—results often are measured in wins and losses. The researcher approached the topic of sport and spirituality from a Judeo-Christian anthropological perspective, proposing that spirituality is interlocked in the athlete's overall design and the athlete's entire personhood is invested in the contest. This premise rose from a biblical worldview that stands on the beliefs that humankind is made in the "image of God" and one's personhood is richly integrated in body, mind, and spirit (Coe, 2014; Fritschel, 2014; Hemphill, 2015; McArdle, 2014; Peters, 2005; Turner, 2013; Watson, 2011; Wright, 2011). In light of this reality, namely the holistic composition of a Christian athlete, this study sought to investigate the perceived centrality of Christian spirituality in athletic competition.

Review of the Methodology

This study utilized quantitative research as its methodology. Specifically, the methodological design of a cross-sectional survey, as opposed to a longitudinal survey, was implemented (Ruel et al., 2016). Six research questions were developed which were integrated into a 16-question Sport and Spirituality survey designed to identify the perceived centrality of Christian spirituality in athletic competition (Appendix A). The statistical significance of the mathematical relationship between variables related to the research questions utilized the .05 alpha level as the threshold for statistical significance. A convenience sample was selected from the student athletes at the subject university. A total of 65 student-athletes were approached, and the first 53 athletes who provided an email address were invited to participate in the study. The study's yield rate was 81.5%. All survey participants were 18 years or older. The survey was distributed electronically through a Qualtrics platform during the spring semester in April 2018. Data were collected within a few days of the launch of the survey, after which data were imported into Statistical Package for the Social Sciences Version 24 (SPSS) for analysis purposes.

Summary of the Results

Preliminary analyses were conducted using the study's data set in advance of the analytics and reporting of the findings for the six posed research questions. The following sections include a summary of the results per research question.

The first research question revealed that nearly 8 in 10 participants either agreed or strongly agreed with the notion that spirituality is indeed central in athletic competition. Moreover, after further analyses were conducted, none of the mean score comparisons were found to be statistically significant. This finding indicates the perceived centrality of spirituality

in athletic competition is deemed important regardless of gender, ethnicity, class designation, or Born-Again status (Table 5).

The results of the second research question were surprising. The cultural environment associated with the athlete's preferred sport was not deemed to be a statistically significant factor in predicting the centrality of spirituality in athletic competition. Instead, the independent variable in the predictive model (Participant Preferred Sport) manifested the greatest degree of relationship with the dependent variable ($r = .48$) and represented a moderate predictive effect ($d = .62$). Essentially, all sports are not created equal with regard to the centrality of spirituality. The type of sport an athlete plays, i.e., football, may influence their perception of the importance of spirituality more so than the cultural environment of the sport, i.e., the inherent etiquette within the game of tennis.

The predictive model in the third research question was not found viable. None of the four independent variables—gender, ethnicity, class identifier, or Born-Again status—were deemed statistically significant predictors of the perceived centrality of spirituality in athletic competition.

The fourth research question utilized multiple linear regression to determine which of the four occasions of prayer would represent a statistically significant predictor of the perceived centrality of spirituality in athletic competition. Surprisingly, Prayer After represented the greatest statistical significance ($r = .40$; $p = .003$) for the predictive model.

The fifth research question used three independent variables to identify the perceived centrality of spirituality in athletic competition. The third variable, Interrelationship of the Spiritual, Mental and Physical in Athletics, was found to be a statistically significant correlate ($r = .50$; $p < .001$) and predictor of the perceived centrality of spirituality in athletic competition.

Essentially, the more an athlete embraces an understanding that the body, mind, and spirit of the human person are richly integrated, the greater their perception of the centrality of spirituality in athletic competition. In light of this finding, the current investigation proves that spirituality is a viable part of the athlete as they engage in athletic competition.

In the final research question, the study's major variable, the perceived Centrality of Spirituality in Athletic Competition, was flipped (Table 10). Centrality of Spirituality was used as a predictor variable rather than a dependent variable, as in the first five questions. Research Question 6 sought to understand the role of perceived centrality of spirituality in helping athletes overcome disappointment associated with poor athletic performance. The predictive model included a variable that measured an athlete's attitude—overcoming feelings of disappointment—as well as a specific spiritual discipline—prayer and meditation. Interestingly, the perceived role of the centrality of spirituality in easing the pain of a poor athletic performance was found to represent the most robust and statistically significant correlate ($r = .39$; $p = .10$) and represented a very large predictive effect ($d = 1.34$). In the current investigation, an athlete's perception of the Centrality of Spirituality is a significant predictor of how well they will handle athletic-related failures and the feelings associated with defeat.

Discussion of the Results

The research instrument was completed by 53 undergraduate student athletes. Table 11 (Appendix M) reflects the descriptive statistic for the research instrument, and Table 12 (Appendix N) depicts participants levels of agreement. An overwhelming majority of study participants viewed spirituality as central to subsequent engagement in athletic competition. The high level of agreement indicates Christian athletes view spirituality as interlocked in their

overall design, and the context of athletic competition does not invalidate spirituality from personhood.

The Athlete as God’s Image Bearer

Watson (2011) discussed athletic identity and predicated it on the “biblical position that all humans are made in the image of God—*imago Dei* (Gen. 1:27)—and comprise soul, body and spirit (1 Thessalonians 5:23)” (p. 110). This study took a similar anthropological perspective, and the findings revealed that the higher an athlete’s belief is in the interrelatedness of the spiritual, mental, and physical aspects of their being, the greater their perception of the centrality of spirituality in athletic competition. According to the study, the holistic and integrated nature of an athlete’s design was the variable which determined both the athlete’s understanding of spiritual depth as well as the way in which spirituality was expressed both on and off the field (Table 9).

For the Christian athlete, *doing*—competing—flows from *being*. From a Judeo-Christian perspective our *being* cannot be understood apart from the *imago Dei* (Genesis 1:26). C. S. Lewis (1952) expressed it well: “God made us: invented us as a man invents an engine. A car is made to run on gasoline, and it would not run properly on anything else. Now God designed the human machine to run on himself” (p. 53). To be human, according to theological anthropology, entails that humanity is designed to function as God’s image bearers in every facet of life, including the athletic context (Ezigbo, 2015; McArdle, 2014; Peters, 2005; Turner, 2013; Watson, 2011). Similarly, Hoffman (2010) stated

the human experience of sport achieves its divine purpose *not* when athletes respond reflexively to its ikish enticements to self-aggrandizement, but when they seize the

opportunity to demonstrate those qualities that mark us as God's highest and most noble creations. (p. 218)

Consequently, the athletic setting becomes a context for the *missio Dei*, a Latin phrase which encapsulates God's global mission (Claydon, 2008; Stott, 1975). The mission of God is redemptive in nature and, as Wright (2004) explained, the *missio Dei* means "our committed participation as God's people, at God's invitation and command, in God's own mission within the history of God's world for the redemption of God's creation" (p. 23). Athletic competition creates a platform for the Christian athlete to participate in the mission of God. Through a Christlike example and a winsome lifestyle, the Christian athlete has the opportunity to demonstrate biblical morals, values, and beliefs. In effect, the Christian athlete becomes a missional agent—a sports evangelist—when their athletic identity is based on a theological understanding of the image of God. Hoffman (2010) has admitted that this movement is a largely unexamined phenomenon: "Mostly the evangelical-sport machine has chugged along on a set of unexamined assumptions about the Christian approach to competition, sport's influence on the character of athletes, the place of prayer in sport...and the role of sport in evangelism." (p. 143).

Scholars (Duke, 2014; Hamilton, 2003; Watson, 2011) have made similar observations related to personhood and athletic performance. Duke (2014) and Watson (2011) argued against the dualistic tendencies entrenched in Western thought and advocated for a far more robust understanding of what it means to be human. Hamilton (2003) noted an athlete without a Christian understanding of personhood may develop unhealthy views of self and "may delude himself into thinking that his own quest for wealth and fame, or even a championship, will make him happy" (p. 7). Watson (2011) also observed athletes who are not grounded in Christ may

develop a sport-is-life mindset and “to lose, or be unable to play for whatever the reason, can have catastrophic consequences for the emotional and psychological balance of an individual that is, their identity” (pp. 113–114). Similarly, Duke advocated that “the highest level of coaching...is defined by the connection between body, mind and spirit – *holism*” (p. 72). The implication is that a biblical understanding of the multifaceted and richly integrated makeup of humans is central to developing a fuller understanding of the athlete and their subsequent engagement in athletic competition.

St. Augustine, the fourth century theologian, wrote,

And man desires to praise you, for he is a part of your creation ... You prompted him, that he should delight to praise you, for you have made us for yourself and restless is our heart until it comes to rest in you. (Outler & Vessey, 2007, p. 3)

Contextually speaking, since the Christian athlete is created to worship God, athletic competition can become the context in which the athlete’s divine design is expressed. Furthermore, Augustine’s reflections can be understood to entail that the athlete’s inherent restlessness and fullest expression of their personhood—*imago Dei*—cannot take place until their pursuits, both on and off the court, seek to glorify God.

Preferred Sport and Cultural Environment

Murray et. al (2005) observed,

Spectators often see a football player ‘take a knee’ in the end zone after scoring a touchdown, a baseball player mouths a quick prayer in the on deck circle, or a soccer player stop and point to the sky after scoring a goal. (p. 233)

These spiritual rituals would seem to indicate that the cultural environment associated with a sport might be a significant predictor of the perceived centrality of spirituality in athletic competition.

However, the data in the current research study suggested the contrary. Surprisingly, Participant Preferred Sport was found to be a statistically significant predictor of the perceived centrality of spirituality in athletic competition. In other words, all sports are not created equal in terms of the perceived centrality of spirituality. The study found that the type of sport an athlete plays influences their perception of the centrality of spirituality more so than the cultural environment associated with the sport. An interesting research project would entail investigating which sports have greater influence athlete spirituality. For instance, does football have a greater influence on an athlete's perception of the centrality of spirituality than cycling?

In some cases, the centrality of spirituality may be imposed by the institution. For instance, private institutions with Christian traditions are likely to foster athletic environments where spirituality forms a central part of the cultural environment of each sport. In this case, it is probable that the organizational culture of a Christian athletic program impacts the athlete's perception of the centrality of spirituality in athletic competition.

Athletes and the Born-Again Status

Kretschmann and Benz (2012) have hypothesized that “what people believe religiously may affect how they think about sports and ultimately how they may conduct themselves in sports situations” (p. 498). Although the Born-Again variable was not a statistically significant predictor of the centrality of spirituality in the current investigation (Table 2), it would be interesting to explore whether the variable would manifest greater statistical significance if the sample size were larger. Moreover, should a similar study be conducted in a secular university

setting, the results may stimulate further understanding on the perceived centrality of spirituality among those who identify as Born-Again and those who do not.

Table 2

Sport and Spirituality Survey Questions 4 Descriptive Statistics

#	Question	Yes	No	Min.	Max.	Mean	SD	Variance	Count
4	I consider myself a Born-Again Christian:	89%	11%	1.00	2.00	1.11	0.32	0.10	53

The findings of the current investigation also warrant a theological discussion on the nature of Christian rebirth. The Christian understanding of spiritual rebirth is mysterious and marvelous as individuals repent and confess their need for God. From a biblical perspective, spiritual new birth is the work of the Spirit of God and refers to an experience in which an individual repents of their sins and turns to Christ for their salvation (Baker & Le Bruyns, 2008). For this reason, “the new life of one born of the Spirit is unexplainable by ordinary reasoning; and its outcome is unpredictable, though its actuality is undeniable” (Gaebelein, Tenney, & Longenecker, 1981, p. 47).

This theological premise is important because the participants of the study attended a private, Christian, liberal arts university. Interestingly, 11% of the respondents did not identify themselves as Born-Again. In light of this finding, it is reasonable to conclude that while these student athletes have not experienced spiritual rebirth or made a commitment to follow Christ, they are attracted to the Christ-centered environment at the subject university. Furthermore, the academic environment along with its athletic programs, which promote a Christian worldview and are centered on scriptural behavior, are likely to create an environment for the Spirit of God to move.

The Significance of Prayer in Athletic Competition

Hochstetler (2009) identified that

A connection between religion and sport continues in the 21st century, most visibly in connection with prayer. High school basketball players often recite the Lord's Prayer before taking the court. Runners bow their heads in silence before toeing the start line. (p. 325)

As a spiritual discipline, prayer offers a way for Christian athletes to calm their nerves before competition and can act as a resource for managing anxiety and stress associated with athletic competition (Philippians 4:6-7). Prayer, as a pregame act of spirituality, confirms the congruency between sport and spirituality.

Czech, Wrisberg, Fischer, Thompson and Hayes (2004) researched the experience of prayer in sport. They found that athletes used prayer as a coping mechanism for stress in sport, "The participants explained how prayer 'soothed,' 'calmed,' and 'relaxed' them as they were about to perform, as well as during performance" (p. 9). Additionally, Czech and Bullet (2007) also investigated the perceptions of prayer in sport among Christian athletes. Their study found the athletes were more likely to pray before a contest and cited "I usually pray right before playing because that is when I am the most nervous" (p. 52). Moreover, their study found most athletes forgot to pray after an athletic contest because they were "too engrossed in dealing with the competitive situation" (Czech & Bullet, 2007, p. 52).

The findings of both of the above-mentioned studies (Czech et. al, 2004; Czech & Bullet, 2007) are interesting in light of the data yielded by the current investigation into the perceived centrality of spirituality in athletic competition given that the current study introduced new data related to the occasion of prayer in athletic competition. Whereas past studies have emphasized

prayer as an act before and during an athletic competition, the current study found that more than two in three respondents either strongly agreed (38%) or agreed (28%) with the notion, “I pray after an athletic contest” (Table 8). This finding is significant, as it offers a new perspective on the occasion of prayer in the context of athletic competition. While the type of prayer (gratitude and thanksgiving) the athlete’s engaged in was beyond the scope of this study, the fact that the study’s participants prayed at the conclusion of an athletic event validates the centrality of spirituality in athletic competition.

Spirituality as a Vehicle for Coping with Athletic-Related Failures

Anshel (2016) made an important observation when he remarked, “We live in a culture that is driven by expectations of success, the pursuit of victory, and finishing in first place” (p. 167). Consequently, much of athletes’ self-worth and identity can be tied to their performance in competition. Watson (2011) observed, “ask any athlete or coach and, if honest, they will admit that at times they allow their performance to define their being and so for them a loss is tantamount to defeat or failure as a person” (p. 116). Nesti (2011) considered athletic failures as the cause of *existential anxiety* among athletes and explained: “when a team loses week after week, the air is filled with existential anxiety. Literally, this is anxiety about existence! It is no exaggeration to say that, subjectively at least, the feeling is one of hopelessness and despair” (p. 152). Such times of loss call for character, courage, and a deep resolve not to give up. Nesti (2011) went on to explain, “the players must be courageous enough to ‘throw’ themselves into the task without inhibition. This can only be done when the individual’s mind and body act in unison, and are bound together by spirit” (p. 154). Interestingly, Nesti’s remarks advocate a holistic understanding of personhood which is inherent to a biblical understanding of the *imago Dei*—the theological start point of this study.

Furthermore, the current study found an athlete's perception of the centrality of Christian spirituality was the variable which determined how well they manage the feelings associated with athletic related failures (Table 10). The findings imply athletes who possess a Christian worldview and who have an integrated understanding of their personhood as God's image bearers are likely to manage failures better because of the central role of their spirituality. This particular finding is congruent with the findings of Kretschmann and Benz (2012) qualitative study, which investigated the morals and beliefs that Christian athletes exhibit in athletic competition. Their study produced four significant themes related to coping: (1) a belief that athletic talent is God-given and needs to be stewarded well; (2) a belief that God's love remains consistent regardless of a win or a loss; (3) motivation for athletic performance originates in God's love; and (4) belief that a God-given purpose exists for everything in life (Kretschmann & Benz, 2012). These four themes can be traced back to one of the central findings of the current study: the more central an athlete's spirituality the greater their ability is to cope with athletic related failures. Moreover, the centrality of an athlete's spirituality can be considered as the most significant vehicle for managing athletic related failures.

Implications for Practice

This study helped to both identify and validate the centrality of spirituality in athletic competition. Traditionally, the relationship between sport and spirituality has been distant and ambiguous. This ambivalence may be credited to the fact that matters of faith are transcendent and the nature of sport is not. Success in athletics is tangibly measured by wins and losses and through qualities such as strength, speed, agility, and mental toughness. This study validated the place of spirituality in sport through a biblical anthropological perspective of the *imago Dei* and its implications on the athlete in competition. Furthermore, the findings of this study supported

the multifaceted and richly integrated makeup of the Christian athlete. The study demonstrated the more athletes base their identity on a biblical understanding of the interrelated nature of the spiritual, mental, and physical aspects of being, the greater their perception of the centrality of spirituality in athletic competition.

Finally, in light of the study's findings, the athletic programs of private, Christian, liberal arts universities may seek to develop athletic programs that cultivate the centrality of spirituality. For instance, a private university may consider developing a Sports Ministry Institute, which approaches athletes and athletic competition from same anthropological premise as this study has attempted to do. Additionally, research and findings of this study may be directly incorporated into the institute's curriculum, and the organizational structure of its mission, vision, and values.

Future Research

Sport and spirituality is an emerging field, and much is yet to be discovered in the way spirituality impacts athletic performance. Future researchers could consider taking a phenomenological approach by investigating the lived experience of athletes whose spirituality is central to their personhood. This type of study could seek to identify the cause-and-effect relationship of spirituality in athletic competition.

Another future research study could take a longitudinal approach to the perceived centrality of spirituality in athletic competition. For instance, this type of study could span the breadth of a four-year collegiate athletic experience. Hence, the Sport and Spirituality survey could be taken once during each of the freshman, sophomore, junior, and senior years. Various comparisons could be made between data sets, and levels of change could be analyzed with regard to the centrality of spirituality in athletic competition.

A third research option could investigate the centrality of spirituality among professing Christian athletes and those who do not adhere to a faith. Hypothetically speaking, this study could place athletes on a continuum and measure Centrality of Spirituality between the two groups (Figure 1).

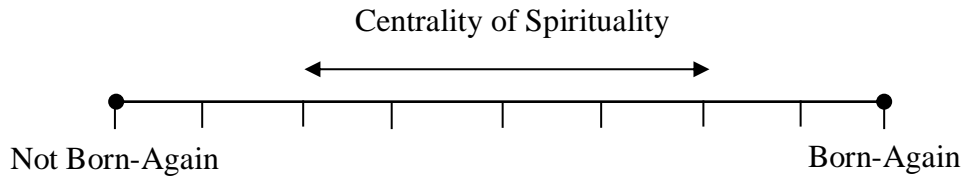


Figure 1. A depiction of a possible future study which aims to measuring the Centrality of Spirituality between two types of athletes.

sports management professionals in the area of sport and spirituality. Moreover, since collegiate-level sports are likely to continue to shape the college experience of students for years to come, further studies in the area of sport and spirituality can help higher education institutions better serve the spiritual needs of their student athletes.

Conclusion

This dissertation presented a quantitative study on the perceived centrality of spirituality in athletic competition. The research utilized a survey instrument developed by the researcher. An overwhelming majority of study participants viewed spirituality as central to subsequent engagement in athletic competition, and the findings indicate spirituality is deemed important regardless of gender, ethnicity, class designation or Born-Again status. Additionally, the study found that prayer after an athletic contest as is a common spiritual discipline. This chapter reviewed the problem statement and methodology, provided a summary and discussion of the results, and, finally, addressed the implications of the study and possible future research opportunities.

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APPENDICES

Appendix A

Sport and Spirituality Survey

Introduction

Thank you for taking the time to complete this survey. Your honest answers are appreciated, and the survey should take no longer than 5 to 10 minutes to complete. All responses will be completely anonymous, and they will be combined with many responses to learn about sports and spirituality. When your responses have been reported, please click “continue” at the bottom of each page. Thanks again for your time and contribution to this important research topic.

Directions

The following statements reflect a variety of viewpoints regarding sports and spirituality. As you read each item, please consider how closely statement expresses your own view. This is just a matter of opinion; there are no right or wrong answers. Do not worry if some of the items appear similar, rate each one as you feel best reflects your opinion.

1. Gender:

- Male
- Female

2. Racial or ethnic identity:

- White/Caucasian
- Black/African-American
- Hispanic/Latino(a)
- Asian/Pacific Islander
- Native American Indian

Multiracial

Other

3. Student's level of standing:

College Freshman

College Sophomore

College Junior

College Senior

4. I consider myself a Born-again Christian

Yes

No

5. In preparation for an athletic contest I read religious texts

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

6. I pray before an athletic contest

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

- Somewhat disagree
- Disagree
- Strongly disagree

7. I pray during an athletic contest

- Strongly agree
- Agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Disagree
- Strongly disagree

8. I pray after an athletic contest

- Strongly agree
- Agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Disagree
- Strongly disagree

9. In an athletic contest, I view failures and mistakes as an opportunity to grow

- Strongly agree
- Agree
- Somewhat agree

- Neither agree nor disagree
- Somewhat disagree
- Disagree
- Strongly disagree

10. I rank spiritual depth as more important than either physical strength and mental toughness in athletic competition?

- Strongly agree
- Agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Disagree
- Strongly disagree

11. I value the importance of the interrelationship that the spiritual, physical, and the mental aspects of my being play in athletic competition

- Strongly agree
- Agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Disagree
- Strongly disagree

12. After a loss, meditation and/or worship help me to overcome feelings of failure and disappointment

- Strongly agree
- Agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Disagree
- Strongly disagree

13. The type of sport I play influences my perceptions of the importance of the role of spirituality

- Strongly agree
- Agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Disagree
- Strongly disagree

14. The culture and environment associated with a particular sport exerts a strong influence upon perception of the role of spirituality

- Strongly agree
- Agree
- Somewhat agree
- Neither agree nor disagree

- Somewhat disagree
- Disagree
- Strongly disagree

15. I consider spirituality as a central element in my engagement in athletic competition

- Strongly agree
- Agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Disagree
- Strongly disagree

16. My perception of the importance of spirituality is the same when I am participating in athletics and in times when I am not participating in athletics

- Strongly agree
- Agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Disagree
- Strongly disagree

Appendix B

Voluntary Consent for Online Survey

Would you consider giving a few minutes of your time to respond to a survey on sport and spirituality? The survey is designed to gather information for a research project conducted by Joel Perttula as part of his dissertation. The principal investigator at Southeastern University is Dr. Kevin Weaver, Associate Professor in the College of Education Law and Policy. Dr. Tom Gollery, the methodologist, is also an investigator in this project.

The purpose of this study is to identify the perceived centrality of spirituality in competition among Christian athletes at Southeastern University.

Participation in this survey is completely voluntary and refusal to participate or withdraw from the study will not have a negative effect on the individual.

This survey should only take about 20 minutes of your time and will serve to further the understanding of the role of spirituality in a sports context. Please respond truthfully to all the items. The results of individual responses will remain totally confidential and will be used only for reporting grouped results in the dissertation.

By taking this survey, you certify that you are 18 years of age or older and that you consent to participate.

If you have any questions related to this survey, please feel free to contact Joel Perttula at 805-813-5800 or jtperttula@seu.edu and/or Dr. Weaver at 404-542-5444 or kweaver@seu.edu. Participants may also contact the Internal Review Board (IRB) with any questions or concerns relating to the study. The IRB can be reached at irb@seu.edu

If you would like a copy of the results of the study when it is completed, please email Joel Perttula to request results.

Thank you so much for your assistance in this important research project! Your prompt response to the survey is very much appreciated.

Note: If you do not wish to receive further email regarding this study, simply reply or forward to jtperttula@seu.edu and type 'unsubscribe' in the subject line. Your name will be promptly removed.

Thank you,

Joel Perttula, MA Intercultural studies

jtperttula@seu.edu

1000 Longfellow Blvd., Lakeland, FL 33801.

Appendix C

Essential Study Participant Demographic Identifiers

Table 1

Internal Reliability Values by Demographic Identifier

Participant Demographic Identifier	<i>a</i>
Females	.91***
Males	.86***
White/Caucasian	.87***
Black/African American	.88***
Hispanic/Latino (a)	.89***
Sophomore Class	.80***
Junior Class	.90***
Senior Class	.86***
Born-Again	.87***
Not Born-Again	.93***

*** $p < .001$

Appendix D

Born-Again Status

Table 2

Sport and Spirituality Survey Questions 4 Descriptive Statistics

#	Question	Yes	No	Min.	Max.	Mean	SD	Variance	Count
4	I consider myself a Born-Again Christian:	89%	11%	1.00	2.00	1.11	0.32	0.10	53

Appendix E

Gender and Ethnic Identity

Table 3

Sport and Spirituality Survey Questions 1 and 2 Descriptive Demographics

#	Question	Male	Female	Caucasian	African-American	Hispanic
1	Gender	72%	28%			
2	Racial or ethnic identity			52.83%	26.42%	20.75%

Appendix F
Grade Demographic

Table 4

Sport and Spirituality Survey Questions 3 Descriptive Demographics

#	Question	Freshman	Sophomore	Junior	Senior
3	Grade:	3.77%	28.30%	41.51%	26.42%

Appendix G

Four Demographic Variables Comparisons

Table 5

Summary of Demographic Variables Comparisons: “Centrality of Spirituality in Athletics”

Demographic Variable	<i>t/F</i>	<i>df</i>	<i>p</i> *
Gender	0.02	51	.98
Ethnicity	0.53	2, 50	.59
Class Designation	0.52	3, 49	.67
“Born-Again” Status	0.68	51	.50

**p* > .05

Appendix H

Preferred Sport and the Centrality of Spirituality

Table 6

Predicting Centrality of Spirituality in Athletic Competition

Model	<i>B</i>	<i>SE</i>	<i>Standardized β</i>
Intercept	1.93	0.79	
Preferred Sport	0.39	0.10	.48***
Cultural Environment of Preferred Sport	0.25	0.15	.22

*** $p < .001$

Appendix I

Centrality of Spirituality by Independent Variables

Table 7

Predicting Centrality of Spirituality by Independent Demographic Identifier Variables

Model	<i>B</i>	<i>SE</i>	<i>Standardized β</i>
Intercept	4.18	1.05	
Gender	0.22	0.46	.08
Ethnicity	0.01	0.24	.01
Class Identifier	0.23	0.24	.15
Born-Again Status	0.35	0.60	.09

Appendix J
Occasion of Prayer

Table 8

Predicting Centrality of Spirituality in Athletic Competition: Occasion of Prayer

Model	<i>B</i>	<i>SE</i>	<i>Standardized β</i>
Intercept	0.59	1.41	
Prayer Before	0.19	0.22	.12
Praying During	0.14	0.14	.13
Prayer After	0.46	0.15	.40**

**p* = .003

Appendix K

Interrelationship of Spiritual, Mental and Physical Elements

Table 9

Predicting Centrality of Spirituality in Athletic Competition

Model	β	SE	Standardized β
Intercept	0.31	0.75	
Spiritual Depth	0.14	0.11	.15
Spirituality “On/Off” Field	0.20	0.12	.20
Interrelation of Spiritual, Mental & Physical Elements	0.56	0.14	.49***

*** $p < .001$

Appendix L

Prayer/Meditation Help Overcome Feelings of Defeat

Table 10

Predicting Participant Perception that Prayer/Meditation Help Overcome Feelings of Disappointment after a Defeat

Model	β	SE	Standardized β
Intercept	0.85	1.12	
Centrality of Spirituality	0.50	0.18	.40**
Failures as Opportunities to Grow	0.21	0.18	.14
Reading Religious Texts Before Competition	0.32	0.20	.22

** $p = .10$.

Appendix M

Sport and Spirituality Survey Questions Five Through Sixteen Descriptive Demographics

Table 11

Sport and Spirituality Survey Questions 5-16 Descriptive Statistics

#	Question	Min.	Max.	Mean	SD	Variance	Count
5	In preparation for an athletic contest, I read religious text:	1.00	6.00	2.91	1.14	1.29	53
6	I pray before an athletic contest:	1.00	4.00	1.47	0.79	0.63	53
7	I pray during an athletic contest:	1.00	6.00	2.30	1.24	1.53	53
8	I pray after an athletic contest:	1.00	6.00	2.09	1.12	1.26	53
9	In an athletic contest, I view failures and mistakes as an opportunity to grow:	1.00	6.00	1.87	1.10	1.21	53
10	I rank spiritual depth as more important than either physical strength and mental toughness in athletic competition:	1.00	6.00	2.85	1.37	1.86	53
11	I value the importance of the interrelationship that the spiritual, physical, and the mental aspects of my being play in athletic competition:	1.00	6.00	2.21	1.14	1.30	53
12	After a loss, meditation and/or worship help me to overcome feelings of failure and disappointment:	1.00	7.00	3.28	1.62	2.62	53

13	The type of sport I play influences my perceptions of the importance of the role of spirituality:	1.00	7.00	3.00	1.55	2.42	53
14	The culture and environment associated with a particular sport exerts a strong influence upon perception of the role of spirituality:	1.00	6.00	2.34	1.08	1.17	53
15	I consider spirituality as a central element in my engagement in athletic competition:	1.00	6.00	2.66	1.27	1.62	53
16	My perception of the importance of spirituality is the same when I am participating in athletics and in times when I am not participating in athletics:	1.00	6.00	2.53	1.30	1.68	53

Appendix N

Sport and Spirituality Survey Questions Level of Agreement by Percentage

Table 12

Sport and Spirituality Survey Questions 5-16 Level of Agreement by Percentage

#	Question	1	2	3	4	5	6	7
5.	In preparation for an athletic contest, I read religious text:	11%	21%	45%	15%	4%	4%	0%
6.	I pray before an athletic contest:	68%	21%	8%	4%	0%	0%	0%
7.	I pray during an athletic contest:	34%	23%	32%	4%	6%	2%	0%
8.	I pray after an athletic contest:	38%	28%	26%	4%	2%	1%	0%
9.	In an athletic contest, I view failures and mistakes as an opportunity to grow:	47%	32%	13%	4%	2%	2%	0%
10.	I rank spiritual depth as more important than either physical strength and mental toughness in athletic competition:	19%	21%	36%	11%	8%	6%	0%
11.	I value the importance of the interrelationship that the spiritual, physical, and the mental aspects of my being play in athletic competition:	28%	43%	13%	11%	2%	2%	0%
12.	After a loss, meditation and/or worship help me to overcome feelings of failure and disappointment:	15%	21%	25%	13%	15%	9%	2%
13.	The type of sport I play influences my perceptions of the importance of the role of spirituality:	17%	30%	15%	23%	6%	8%	2%
14.	The culture and environment associated with a particular sport exerts a strong influence upon perception of the role of spirituality:	19%	45%	26%	6%	0%	4%	0%
15.	I consider spirituality as a central element in my engagement in athletic competition	19%	32%	26%	11%	9%	2%	0%
16.	My perception of the importance of spirituality is the same when I am participating in athletics and in times when I am not participating in athletics	23%	36%	21%	9%	9%	2%	0%

Notes. Likert Scale: 1 = strongly agree, 2 = agree, 3 = somewhat agree, 4 = neither agree nor disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree

Appendix P

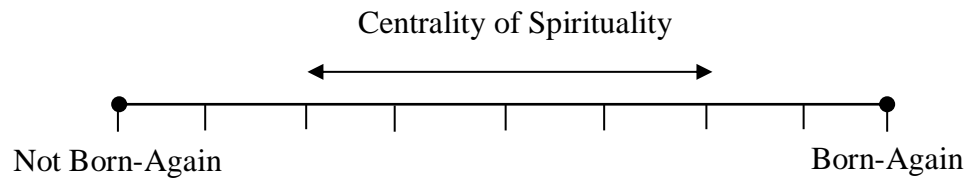


Figure 1. A depiction of a possible future study which aims to measuring the Centrality of Spirituality between two types of athletes.