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Spiritual Care Perspective of College Student-Athletes

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Abstract

Spirituality in healthcare has been researched in multiple healthcare professions; however, very little research has been done in athletic training, and no studies have investigated the athletes' perception. The purpose of our online survey study was to determine the perceptions of college student-athletes on spiritual care. Our participants included 268 collegiate student-athletes from both faith-based and non-faith-based institutions. Respondents agree that spirituality may affect treatment progress, addressing spiritual concerns of the athlete could result in a more positive outcome, and certified athletic trainers should have some basic skills and knowledge to support the spiritual needs of the athlete.

Keywords Healthcare · Perceptions · Spirituality · Athletic training · Athletics

Introduction

Earlier this decade, the NCAA began addressing the increased concerns related to college athletes and their mental health; however, the complete results of its multi-institution data collection project are not yet published (Kunji 2013). With universities as a common work setting, athletic trainers often interact with college athletes who may be suffering from physical, as well as psychosocial, conditions (Etzel et al. 2006; Malinauskas 2010). Athletes who have major injuries also tend to have higher stress levels and reduced life satisfaction (Malinauskas 2010); specifically, concussions and ACL injuries have been associated with higher levels of depression symptoms (Kontos et al. 2012; Mainwaring et al. 2010). In addition, athletes with career-ending injuries may experience grief, isolation, and a loss of athletic identity, while those with chronic injuries may experience frustration and anger (Granquist et al. 2015). Recently, an editorial piece (Valovich McLeod 2015) reminded clinicians that physical injuries may also be associated with psychological stress, and athletic trainers should treat and assess the whole person—not just his or her immediate injury. At the same time, heightened concerns for student-athletes suffering from mental illnesses spurred an interassociation statement with

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recommendations for addressing psychological concerns in the secondary school setting (Neal et al. 2015).

As members of a comprehensive sports medicine team, athletic trainers often have specialists to whom they can refer athletes with special psychological or emotional needs. However, athletes reportedly associate a negative stigma with using professional mental health services, and the negative perception reduces athletes' willingness to seek help (Wahot et al. 2016). Therefore, the 5th Edition of the Athletic Training Education Competencies (NATA 2011) includes an expectation for entry-level athletic trainers (AT) to develop strategies for caring for psychosocial needs and the understanding of the factors that affect pain including personal values and beliefs. In addition, the competencies identify cultural competence, including an appreciation for diversity, as a foundational behavior that should be embedded throughout the athletic training curriculum. One component of diversity is the religious, or spiritual, beliefs of the patients.

The inclusion of spirituality in health care has been explored by multiple researchers (Coyne 2005; Giske and Cone 2015; Hodge and Horvath 2011; Lang et al. 2006; Narrayanasamy and Owens 2001; Pesut and Thorne 2007; Ramezani et al. 2014; Udell and Chandler 2000; Wu et al. 2015). Depending on the context, spiritual care can include various methods and abstract concepts or feelings. Ramezani et al. (2014) conducted a concept analysis to determine the attributes of spiritual care in nursing. They determined these attributes to be: healing presence, therapeutic use of self, intuitive sense, exploration of the spiritual perspective, patient-centeredness, meaning-centered therapeutic intervention, and creation of a spiritually nurturing environment. Furthermore, the spiritual needs reported by hospitalized patients include the desire to address fear, hopelessness, loneliness, tiredness, and finding meaning and purpose in life (Lang et al. 2006). Giske and Cone (2015) reported that spiritual care affects both the nurse and the patient. They further described spirituality's relationship to both health and healing, and they stated that nurses should have basic competency in spiritual care including a caring attitude, recognizing and clarifying spiritual concerns, and making appropriate referrals.

While other healthcare professions have a literature base focused on a spiritual care component, only Udermann et al. (2008) and McKnight and Juillerat (2011) have addressed spiritual care of injured athletes by athletic trainers. Udermann et al. (2008) reported that nearly 90% of their surveyed athletic training program directors agreed there is a connection between spirituality and health. Furthermore, approximately 75% of program directors (Udermann et al. 2008) and 80% of clinical athletic trainers (McKnight and Juillerat 2011) think addressing spirituality with patients could improve the patient's mental status as well. Despite the agreement, both surveyed groups hesitate to formally address or incorporate spirituality into their own curriculum or clinical practice.

Previous literature (McKnight and Juillerat 2011) explored the athletic trainer's perceptions of spiritual care for athletes; however, the purpose of our research was to explore the college student-athletes' perceptions of, and attitudes toward, spiritual care for injured athletes. We hypothesized that student-athletes at faith-based institutions would be more likely to have positive perceptions about spiritual care.

Methods

Participants

A total of 268 collegiate athletes (105 male, 144 female, 19 did not report sex) participated in our project. One hundred sixty-two participants (60.4%) were athletes in a private NCAA Division III institution, and 106 participants (39.6%) were athletes at one of two faith-based NCAA Division II institutions. The participants included 26.88% freshmen, 22.92% sophomores, 22.13% juniors, and 6.32% seniors. Caucasians were the majority of the respondents at 78%, with 6% Hispanic, 5.2% African American, 3.7% Pacific Islander, and .7% Native American or Alaskan Native (6.3% did not respond). Fourteen sports were represented, with the highest percentages from track and field (19.8%), soccer (16%), football (9%), swimming and diving (8.6%), and basketball (7.8%).

Procedures

The project was approved by our Institutional Review Board. In order to gain access to athletes, we contacted athletic trainers at a total of 12 colleges and universities via phone or email. The purpose of the survey and the types of questions were explained, and the appropriate IRB number was provided. The athletic trainers were asked to serve as a campus representative and distribute the electronic survey invitation to the varsity athletes. The athletic trainers made the initial contact with their respective athletic departments and asked for permission to distribute the survey. Three institutions gave permission: 1 private, and 2 private, faith-based. After permission was gained, a link to the survey, via Survey Monkey, was forwarded to the athletic departments for distribution to the athletes. We collected data in fall of 2013 and spring of 2015. A total of 1542 surveys were sent and 269 were returned for a return rate of 17.44%.

Instrument

After indicating informed consent, the participants were provided with a brief definition of spirituality (Reed 1986) as well as a clarification that spiritual care is not tied to a specific religion or evangelism. We modified the wording of McKnight and Julliaret's (2011) previous survey of college athletic trainers working clinically. In their study, they used the questionnaire to gather responses from athletic trainers on individual items rather than to measure a single abstract construct, so construct validity was not assessed. For our purposes, we changed wording to better reflect the respondents in our study, athletes.

We used a 57 question survey with 5 sections, all of which included a fixed-format item type. The first 8 items related to spirituality and athletic training approaches, and respondents were asked to select their level of agreement or disagreement on a 4-point (1 = *strongly agree*, 2 *agree*, 3 = *disagree*, 4 = *strongly disagree*) Likert scale. The second section of 14 questions asked athletes to select whether they thought that specific spiritual care interventions were appropriate on a 4-point Likert scale (1 = *completely*, 2 = *mostly*, 3 = *somewhat*, 4 = *not at all*). The subsequent section repeated the list with subjects asked to identify the frequency by which the intervention had been done by an athletic trainer with them (1 = *never*, 2 = *rarely*, 3 = *occasionally*, 4 = *frequently*, 5 = *very frequently*). The fourth section repeated the list once again, asking which of the interventions the athletes would want and/or appreciate their athletic trainer doing with or for them. This

was a simple "yes" or "no" response. Finally, a demographic section was included to determine the participant's age, gender, year in school, sport, and ethnicity. Information about the student's college or university, such as the athletic division, public or private control, and faith-based, was also solicited.

Statistical Analysis

Survey responses were downloaded from Survey Monkey to IBM SPSS Statistics (Version 23). Descriptive statistics were calculated to examine the responses to each item on the survey. Because we explored individual items rather than scale scores, we used Mann–Whitney tests to explore differences in the responses to the items based on institution type.

Results

First, to determine the amount of interactions the athletes have had with athletic trainers, we asked them how many times they have been injured and cared for by a certified athletic trainer in their college career. The majority (60.7%) said 1–3 times, and 24.20% responded 4–7. The remaining 15% of respondents selected various incremental amounts ranging from 8–10 to 21 or more. These responses are important as the rest of the survey asks about their views about the AT and spiritual interventions done by the AT.

Overall, 81.70% of the respondents agreed or strongly agreed with the statement: "An injured athlete's spiritual perspective may affect his/her treatment progress." Respondents also supported the statement: "Addressing the spiritual concerns of an athlete could result in a more positive outcome when treating an athletic injury (i.e., faster return to play with fewer psychological and/or physical setbacks)" with 78.40% agreeing or strongly agreeing. Along the same lines, 33.60% agreed or strongly agreed that "Knowledge about spirituality is not relevant to medical care." As a negatively worded item, these responses indicate that more athletes consider knowledge about spirituality as relative to medical care. Furthermore, 73.10% of the respondents agreed or strongly agreed that "Certified athletic trainers should have some basic skills and knowledge necessary to support the spiritual needs of the injured athlete;" however, only 54.50% agreed that "Athletic training education programs should include the spiritual dimension as part of the comprehensive education curriculum." Table 1 includes the descriptive statistics for all participants on items related to athletic training approaches and spirituality. Table 2 provides an institution-type comparison of the items.

Next, we asked the athletes to assess the level of appropriateness for various spirituality-related methods of care (see Table 3). When we compared the athlete responses between the two institution types, the Mann–Whitney tests showed most items were rated significantly different (see Table 4). The exceptions were related to teaching meditation, teaching visualization, and having a respectful attitude toward the injured athlete's spiritual views.

The frequency with which the student-athletes have received spiritual care from their athletic trainers was also assessed (see Table 5). Again, when student-athletes responses were compared between faith-based and non-faith-based institutions, there were significant differences with only a few exceptions (see Table 6). Students reported their athletic trainers rarely taught them meditation techniques, general visualization techniques, or visualization techniques using spiritual images.

Finally, Table 7 displays the descriptive statistics for the items asking if the student-athlete would like an athletic trainer to provide him or her with specific spiritual care methods.

Table 1 Descriptive statistics for level of agreement items

	All			
	SA N (%)	A N (%)	D N (%)	SD N (%)
An injured athlete's spiritual perspective may affect his/her treatment progress	64 (23.9)	155 (57.8)	38 (14.2)	11 (4.1)
Addressing the spiritual concerns of an athlete could result in a more positive outcome when treating an athletic injury (i.e., faster return to play with fewer psychological and/or physical setbacks)	61 (22.8)	149 (55.6)	51 (19.0)	7 (2.6)
Certified athletic trainers should have some basic skills and knowledge necessary to support the spiritual needs of the injured athlete	45 (16.9)	150 (56.2)	60 (22.5)	12 (4.5)
If an athlete wishes it to be part of their recovery process, it is the certified athletic trainer's responsibility to provide spiritual care to the injured athlete as part of their treatment	21 (7.8)	99 (36.9)	122 (45.5)	26 (9.7)
Athletic training education programs should include the spiritual dimension as part of the comprehensive education curriculum	26 (9.7)	120 (44.8)	107 (39.9)	15 (5.6)
Knowledge about spirituality is not relevant to medical care[a]	13 (4.9)	77 (28.7)	146 (54.5)	32 (11.9)
An injured athlete's needs are met without spiritual care[a]	23 (8.6)	133 (49.8)	104 (39.0)	7 (2.6)
I would like my athletic trainer to consider my spirituality when treating me	23 (8.6)	112 (41.9)	110 (41.2)	22 (8.2)

SA strongly agree, A agree, D disagree, SD strongly disagree

[a]Negatively worded item

Discussion

With limited research related to spiritual care in the athletic training profession, we must try to understand the concept through research based on other healthcare professions. Morris et al. (2014) reported that over 90% of surveyed OTs view spirituality as an important part of the human experience, and 60% either strongly agree or agree that OTs should address spirituality. They concluded that holistic OT required the inclusion of spirituality, and if spirituality is important to the client, it needs to be addressed in treatment. This perspective is consistent with the views of DPT students, 81.5% of whom agree that spiritual health is relevant to physical therapy (Tapley et al. 2012). Our results also indicate college student-athletes, both those at faith-based institutions and non-faith-based institutions, tend to agree that one's spiritual perspective may affect treatment progress.

Similarly, our respondents agree that meeting an athlete's spiritual needs could positively influence treatment outcomes. Research by Holt-Lunstad et al. (2011) supports these views. They report that spiritual well-being is related to many health risk factors including decreased stress, decreased depression, decreased ambulatory blood pressure, decreased fasting glucose levels, and decreased BMI, in healthy adults. For college student-athletes, major injuries are associated with more stress as well as lower life satisfaction (Malinauskas 2010); therefore, incorporating spiritual care into a treatment plan may serve as a

Table 2 Institution-type responses and Mann–Whitney results for level of agreement items

	Faith-based				Not faith-based				Mann–Whitney	
	SA N (%)	A N (%)	D N (%)	SD N (%)	SA N (%)	A N (%)	D N (%)	SD N (%)	U	p
An injured athlete's spiritual perspective may affect his/her treatment progress	23 (21.7)	66 (62.3)	12 (11.3)	5 (4.7)	41 (25.3)	89 (54.9)	26 (16.0)	6 (3.7)	8546.5	0.943
Addressing the spiritual concerns of an athlete could result in a more positive outcome when treating an athletic injury (i.e., faster return to play with fewer psychological and/or physical setbacks)	23 (21.7)	63 (59.4)	18 (17.0)	2 (1.9)	38 (23.5)	86 (53.1)	33 (20.4)	5 (3.1)	8388.0	0.723
Certified athletic trainers should have some basic skills and knowledge necessary to support the spiritual needs of the injured athlete	17 (16.0)	71 (67.0)	17 (16.0)	1 (0.9)	28 (17.4)	79 (49.1)	43 (26.7)	11 (6.8)	7370.5	0.036
If an athlete wishes it to be part of their recovery process, it is the certified athletic trainer's responsibility to provide spiritual care to the injured athlete as part of their treatment	5 (4.7)	39 (36.8)	55 (51.9)	7 (6.6)	16 (9.9)	60 (37.0)	67 (41.4)	19 (11.7)	8248.0	0.555
Athletic training education programs should include the spiritual dimension as part of the comprehensive education curriculum	14 (13.2)	53 (50.0)	36 (34.0)	3 (2.8)	12 (7.4)	67 (41.4)	71 (43.8)	12 (7.4)	7085.5	0.009
Knowledge about spirituality is not relevant to medical care[a]	2 (1.9)	27 (25.5)	60 (56.6)	17 (16.0)	11 (6.8)	50 (30.9)	86 (53.1)	15 (9.3)	7322.5	0.024
An injured athlete's needs are met without spiritual care[a]	5 (4.8)	48 (45.7)	49 (46.7)	3 (2.9)	18 (11.1)	85 (52.5)	55 (34.0)	4 (2.5)	7186.5	0.018
I would like my athletic trainer to consider my spirituality when treating me	10 (9.5)	55 (52.4)	34 (32.4)	6 (5.7)	13 (8.0)	57 (35.2)	76 (46.9)	16 (9.9)	6943.5	0.006

SA strongly agree, A agree, D disagree, SD strongly disagree

[a]Negatively worded item

Table 3 Descriptive statistics for level of appropriateness items

| | All | | | |
	C N (%)	M N (%)	S N (%)	NA N (%)
Listen to the injured athlete's spiritual concerns/issues/needs	73 (27.9)	110 (42.0)	65 (24.8)	14 (5.3)
Refer to clergy or other spiritual leader/adviser	37 (14.2)	75 (28.7)	96 (36.8)	53 (20.3)
Pray with the injured athlete. (The AT and the athlete together.)	63 (24.0)	57 (21.8)	85 (32.4)	57 (21.8)
Pray for the injured athlete. (The AT praying without the athlete.)	99 (37.9)	57 (21.8)	63 (24.1)	42 (16.1)
Teach meditation techniques	34 (13.1)	66 (25.4)	102 (39.2)	58 (22.3)
Teach general visualization techniques (no spiritual images/emphasis)	56 (21.7)	93 (36.0)	84 (32.6)	25 (9.7)
Teach visualization techniques that use spiritual images	18 (6.9)	57 (21.9)	111 (42.7)	74 (28.5)
Talk with the injured athlete about spiritual matters	22 (8.4)	78 (29.8)	99 (37.8)	63 (24.0)
Have a respectful attitude toward the injured athlete's spiritual views	185 (70.9)	55 (21.1)	15 (5.7)	6 (2.3)
Encourage the expression of the injured athlete's spirituality	64 (24.6)	99 (38.1)	72 (27.7)	25 (9.6)
Encourage the injured athlete's search for meaning and purpose related to the injury	58 (22.2)	83 (31.8)	79 (30.3)	41 (15.7)
Share the certified athletic trainer's personal spiritual beliefs with the athlete	24 (9.2)	59 (22.5)	102 (38.9)	77 (29.4)
Share the certified athletic trainer's personal spiritual journey with the injured athlete	27 (10.3)	64 (34.7)	98 (37.4)	73 (27.9)
Share research findings on the relationship between spirituality and health with the injured athlete	45 (17.2)	84 (32.1)	94 (35.9)	39 (14.9)

Appropriate—*C* completely, *M* mostly, *S* somewhat, *NA* not at all

supplemental intervention to improve coping with the physical injury (Ramezani et al. 2014; Wu et al. 2015).

The student-athletes' opinions on the methods of spiritual care vary. Specifically, athletes who participated in our study say that they would not appreciate learning meditation and visualization techniques. However, meditation and visualization have been shown to decrease blood pressure and heart rate, as well as relax the muscles and increase immune response (Ott 2004). In a study examining the effects of imagery on swelling, pain, and range of motion in athletes with grade II ankle sprains, Christakou and Zervas (2007) found no significant differences but reported a descriptive result of decreased pain in the first 4 measures taken on days 10–13. This result is similar to those of Cupal and Brewer (2001) who found a significant decrease in pain and reinjury anxiety in ACL reconstruction patients who underwent guided imagery. They also found an increase in strength 24 weeks post-surgery compared with controls and placebos.

Previously, McKnight and Juillerat (2011) discovered athletic trainers also perceive the potential benefits of spiritual care yet faced obstacles related to implementing it into their practice. Despite the belief that spirituality requires consideration when providing patient care, Engquist et al. (1997) reported that 67% of surveyed OTs agreed that it was

Table 4 Institution-type responses and Mann–Whitney results for level of appropriateness items

	Faith-based				Not faith-based				Mann–Whitney	
	C N (%)	M N (%)	S N (%)	NA N (%)	C N (%)	M N (%)	S N (%)	NA N (%)	U	p
Listen to the injured athlete's spiritual concerns/issues/needs	38 (37.3)	38 (37.3)	23 (21.7)	3 (2.8)	35 (21.9)	72 (45.0)	42 (26.3)	11 (6.9)	6700.5	0.014
Refer to clergy or other spiritual leader/adviser	20 (19.6)	37 (36.3)	37 (36.3)	8 (7.8)	17 (10.7)	38 (23.9)	59 (37.1)	45 (28.3)	5720.5	0.000
Pray with the injured athlete. (The AT and the athlete together.)	43 (42.2)	31 (30.4)	25 (24.5)	3 (2.9)	20 (12.5)	26 (16.3)	60 (37.5)	54 (33.8)	3752.0	0.000
Pray for the injured athlete. (The AT praying without the athlete.)	60 (58.8)	28 (27.5)	12 (11.8)	2 (2.0)	39 (24.5)	29 (18.2)	51 (32.1)	40 (25.2)	4068.0	0.000
Teach meditation techniques	16 (15.7)	30 (29.4)	36 (35.3)	20 (19.6)	18 (11.4)	36 (22.8)	66 (41.8)	38 (24.1)	7136.0	0.103
Teach general visualization techniques (no spiritual images/emphasis)	29 (28.4)	31 (30.4)	33 (32.4)	9 (8.8)	27 (17.3)	62 (39.7)	51 (32.7)	16 (10.3)	7300.0	0.240
Teach visualization techniques that use spiritual images	9 (8.9)	26 (25.7)	47 (46.5)	19 (18.8)	9 (5.7)	31 (19.5)	64 (40.3)	55 (34.6)	6560.0	0.008
Talk with the injured athlete about spiritual matters	17 (16.7)	43 (42.2)	36 (35.3)	6 (5.9)	5 (3.1)	35 (21.9)	63 (39.4)	57 (35.6)	4373.0	0.000
Have a respectful attitude toward the injured athlete's spiritual views	78 (76.5)	19 (18.6)	3 (2.9)	2 (2.0)	107 (67.3)	36 (22.6)	12 (7.5)	4 (2.5)	7309.0	0.091
Encourage the expression of the injured athlete's spirituality	33 (32.7)	45 (44.6)	19 (18.8)	4 (4.0)	31 (19.5)	54 (34.0)	53 (33.3)	21 (13.2)	5834.0	0.000
Encourage the injured athlete's search for meaning and purpose related to the injury	33 (32.4)	37 (36.3)	29 (28.4)	3 (2.9)	25 (15.7)	46 (28.9)	50 (31.4)	38 (23.9)	5392.5	0.000
Share the certified athletic trainer's personal spiritual beliefs with the athlete	16 (15.7)	36 (35.3)	40 (39.2)	10 (9.8)	8 (5.0)	23 (14.4)	62 (38.8)	67 (41.9)	4511.0	0.000
Share the certified athletic trainer's personal spiritual journey with the injured athlete	21 (20.6)	30 (29.4)	42 (41.2)	9 (8.8)	6 (3.8)	34 (21.3)	56 (35.0)	64 (40.0)	4761.0	0.000
Share research findings on the relationship between spirituality and health with the injured athlete	28 (27.5)	36 (35.3)	28 (27.5)	10 (9.8)	17 (10.6)	48 (30.0)	66 (41.3)	29 (18.1)	5913.0	0.000

Appropriate—C completely, M mostly, S somewhat, NA not at all

Table 5 Descriptive statistics for all frequency items

	All				
	NR N (%)	R N (%)	O N (%)	F N (%)	VF N (%)
Listen to your spiritual concerns/issues/beliefs	147 (57.0)	45 (17.4)	47 (18.2)	14 (5.4)	5 (1.9)
Referred you to clergy or other spiritual advisor	220 (85.6)	18 (7.0)	14 (5.4)	3 (1.2)	2 (.8)
Prayed with you	201 (77.9)	20 (7.8)	26 (10.1)	9 (3.5)	2 (.8)
Taught you meditation techniques	208 (81.9)	26 (10.2)	14 (5.5)	6 (2.4)	0 (0)
Taught you general visualization techniques (no spiritual images/emphasis)	184 (71.3)	31 (12.0)	27 (10.5)	12 (4.7)	4 (1.6)
Taught you visualization techniques that use spiritual images	233 (90.3)	15 (5.8)	8 (3.1)	2 (.8)	0 (0)
Talked with you about spiritual matters	178 (69.8)	35 (13.7)	35 (13.7)	5 (2.0)	2 (.8)
Respected your spiritual views	68 (26.5)	13 (5.1)	35 (13.6)	65 (25.3)	76 (29.6)
Encouraged the expression of your spirituality	141 (54.9)	31 (12.1)	42 (16.3)	27 (10.5)	16 (6.2)
Encouraged you to search for meaning and purpose related to the injury	161 (62.6)	36 (14.0)	29 (11.3)	22 (8.6)	9 (3.5)
Shared their personal spiritual beliefs with you	169 (65.8)	48 (18.7)	27 (10.5)	9 (3.5)	4 (1.6)
Shared their personal spiritual journey with you	197 (76.7)	30 (11.7)	22 (8.6)	6 (2.3)	2 (.8)
Shared research finding on the relationship between spirituality and health with you	213 (82.9)	21 (8.2)	16 (6.2)	7 (2.7)	0 (0)

Frequency—*NR* never, *R* rarely, *O* occasionally, *F* frequently, *VF* very frequently

appropriate to discuss spirituality only if the client brought it up. In more recent studies, Udell and Chandler (2000) suggested OTs did not do spiritual counseling, but they recognized patients' spiritual needs and how those may affect the patient's function. Even when OTs consider spiritual care to be part of their own role as individuals, they were not in agreement that spiritual care was part of an OT's role (2005). These results also complement the results of a recent survey of physicians (Robinson et al. 2017) which reports nearly 70% of the respondents believe patients praying can influence physical diseases, and more than half believe the prayers of others can affect a patient's physical health. Nevertheless, only 33.6% of those physicians who believe in God and consider religion as very important have prayed with their patients. The religious respondents cited a variety of reasons that prevent them from praying with their patients, including possibly offending patients or employers as well as not having enough time or opportunities. Similarly, athletes in our study did not agree that an AT praying with an injured athlete was appropriate; however, an AT praying for the athlete was viewed more favorably.

Nearly three-quarters of our respondents agree that certified athletic trainers should have basic skills and knowledge to support an injured athlete's spiritual needs. The lack of training, however, was described as an obstacle that prevents certified athletic trainers from providing spiritual care to their injured athletes (McKnight and Juillerat 2011). Athletic training education programs must embed foundational behaviors related to cultural competence and diverse populations (NATA 2011), and one component of diversity is religion or personal faith perspectives. Likewise, medical students are required to demonstrate

Table 6 Institution-type responses and Mann–Whitney results for frequency items

	Faith-based					Not faith-based					Mann–Whitney	
	NR N (%)	R N (%)	O N (%)	F N (%)	VF N (%)	NR N (%)	R N (%)	O N (%)	F N (%)	VF N (%)	U	p
Listen to your spiritual concerns/issues/beliefs	34 (34.0)	23 (23.0)	33 (33.0)	8 (8.0)	2 (2.0)	113 (71.5)	22 (13.9)	14 (8.9)	6 (3.8)	3 (1.9)	4812.0	0.000
Referred you to clergy or other spiritual advisor	77 (77.0)	14 (14.0)	7 (7.0)	2 (2.0)	0 (0)	143 (91.1)	4 (2.5)	7 (4.5)	1 (.6)	2 (1.3)	68,082.0	0.003
Prayed with you	60 (60.0)	11 (11.0)	20 (20.0)	7 (7.0)	2 (2.0)	141 (89.2)	9 (5.7)	6 (3.8)	2 (1.3)	0 (0)	5494.5	0.000
Taught you meditation techniques	77 (77.8)	14 (14.1)	5 (5.1)	3 (3.0)	0 (0)	131 (84.5)	12 (7.7)	9 (5.8)	3 (1.9)	0 (0)	7185.0	0.203
Taught you general visualization techniques (no spiritual images/emphasis)	68 (68.0)	15 (15.0)	13 (13.0)	3 (3.0)	1 (1.0)	116 (73.4)	16 (10.1)	14 (8.9)	9 (5.7)	3 (1.9)	7581.0	0.493
Taught you visualization techniques that use spiritual images	86 (86.0)	9 (9.0)	5 (5.0)	0 (0)	0 (0)	147 (93.0)	6 (3.8)	3 (1.3)	2 (1.3)	0 (0)	7356.5	0.070
Talked with you about spiritual matters	40 (40.4)	24 (24.2)	30 (30.3)	3 (3.0)	2 (2.0)	138 (88.5)	11 (7.1)	5 (3.2)	2 (1.3)	0 (0)	3918.0	0.000
Respected your spiritual views	10 (10.1)	4 (4.0)	5 (5.1)	30 (30.3)	50 (50.5)	58 (36.7)	9 (5.7)	30 (19.0)	35 (22.2)	26 (16.5)	4007.0	0.000
Encouraged the expression of your spirituality	30 (30.0)	15 (15.0)	23 (23.0)	19 (19.0)	13 (13.0)	111 (70.7)	16 (10.2)	19 (12.1)	8 (5.1)	3 (1.9)	4239.0	0.000
Encouraged you to search for meaning and purpose related to the injury	45 (45.0)	15 (15.0)	19 (19.0)	14 (14.0)	7 (7.0)	116 (73.9)	21 (13.4)	10 (6.4)	8 (5.1)	2 (1.3)	5288.5	0.000

Table 6 continued

	Faith-based					Not faith-based					Mann–Whitney	
	NR N (%)	R N (%)	O N (%)	F N (%)	VF N (%)	NR N (%)	R N (%)	O N (%)	F N (%)	VF N (%)	U	p
Shared their personal spiritual beliefs with you	37 (37.0)	33 (33.0)	22 (22.0)	4 (4.0)	4 (4.0)	132 (84.1)	15 (9.6)	5 (3.2)	5 (3.2)	0 (0)	4119.5	0.000
Shared their personal spiritual journey with you	55 (55.6)	21 (21.2)	19 (19.2)	3 (3.0)	1 (1.0)	142 (89.9)	9 (5.7)	3 (1.9)	3 (1.9)	1 (.6)	5139.0	0.000
Shared research finding on the relationship between spirituality and health with you	72 (72.0)	13 (13.0)	12 (12.0)	3 (3.0)	0 (0)	141 (89.8)	8 (5.1)	4 (2.5)	4 (2.5)	0 (0)	6462.0	0.000

Frequency—*NR* never, *R* rarely, *O* occasionally, *F* frequently, *VF* very frequently

Table 7 Descriptive statistics for preference items

	All		Faith-based		Not faith-based	
	Yes N (%)	No N (%)	Yes N (%)	No N (%)	Yes N (%)	No N (%)
Listen to your spiritual concerns/issues/needs	171 (66.8)	85 (33.2)	84 (84.0)	16 (16.0)	87 (55.8)	69 (44.2)
Refer you to clergy or other spiritual adviser	69 (27.1)	186 (72.9)	40 (40.4)	59 (59.6)	29 (18.6)	127 (81.4)
Pray with you	138 (54.3)	116 (45.7)	81 (81.8)	18 (18.2)	57 (36.8)	98 (63.2)
Teach you meditation techniques	135 (52.9)	120 (47.1)	50 (50.0)	50 (50.0)	85 (54.8)	70 (45.2)
Teach you general visualization techniques (no spiritual images/emphasis)	151 (59.2)	104 (40.8)	57 (57.0)	43 (43.0)	94 (60.6)	61 (39.4)
Teach you visualization techniques that use spiritual images	78 (30.6)	177 (69.4)	34 (34.0)	66 (66.0)	44 (28.4)	111 (71.6)
Talk with you about spiritual matters	118 (46.1)	138 (53.9)	68 (68.0)	32 (32.0)	50 (32.1)	106 (67.9)
Respect your spiritual views	235 (92.5)	19 (7.5)	95 (96.0)	4 (4.0)	140 (90.3)	15 (9.7)
Encourage the expression of your spirituality	161 (63.1)	94 (36.9)	85 (85.0)	15 (15.0)	76 (49.0)	79 (51.0)
Encourage your search for meaning and purpose related to the injury	150 (59.5)	102 (40.5)	78 (78.8)	21 (21.2)	72 (47.1)	81 (52.9)
Share their personal spiritual journey with you	130 (50.8)	126 (49.2)	75 (75.0)	25 (25.0)	55 (35.3)	101 (64.7)
Share research findings on the relationship between spirituality and health with you	148 (58.0)	107 (39.9)	75 (75.8)	24 (24.2)	73 (46.8)	83 (53.2)
Share their personal spiritual beliefs with you	124 (48.6)	131 (51.4)	70 (70.0)	30 (30.0)	54 (34.8)	101 (65.2)

sensitivity to diverse patient groups (ACGME 2016); however, their educational requirements are explicitly listed and include culture and religion as well as traditional descriptors of diversity such as gender, age, and race. As of 2014, 75% of medical schools had spiritual topics in their curriculum (Lewell 2016). The National Competencies in Spirituality for Medical Education (Puchalski et al. 2014) include expected behaviors related to a patient's spiritual care and general knowledge of a variety of spiritual and religious views. Furthermore, within family medicine, an interest group developed spiritual care competencies that are described as broad enough to adapt to other health profession education programs and include a focus on spirituality, rather than religion, to apply to a greater range of patients (Anandarajah et al. 2010). For example, residents are expected to have knowledge in spiritual beliefs and understand current research relating health and spirituality. In addition, they should have skills in collecting information related to spiritual beliefs and care for the whole person. Similarly, in occupational therapy, one of the practice domains

is focused on the patient's values, beliefs, and spirituality and how these individual characteristics can influence how one approaches work or activities (AOTA 2014).

As previously discussed, athletic training program directors and clinical athletic trainers do not necessarily incorporate spirituality into their curriculum or clinical care despite the majority agreeing that spirituality is connected to physical health (McKnight and Juillerat 2011; Udermann et al. 2008). Our student-athlete respondents are more equally split on their opinion of including spiritual care as part of the required athletic training curriculum; however, student-athletes at faith-based institutions agree with including spiritual concepts in the curriculum more so than the student-athletes at non-faith-based institutions. Future research should explore the opinion on adding spiritual care components to the AT curriculum between athletic training students enrolled in programs with a spiritual care focus and those who do not currently address the content.

The limitations of our study include that we only had three schools participating which reduces the number of possible interactions with athletic trainers. In addition, the personalities of the athletic trainers at these schools may have influenced how the athletes perceived care and appropriate behavior. Seeing the term "spiritual" in the description of the study may have also influenced who decided to complete the survey. Those who had strong opinions in either direction may have been more likely to participate.

We anticipated a difference in responses between student-athletes at faith-based institutions and non-faith-based schools. Many of the responses were significantly different; however, both groups agreed that "An injured athlete's spiritual perspective may affect his/her treatment progress" and "Addressing the spiritual concerns of an athlete could result in a more positive outcome when treating an athletic injury (i.e., faster return to play with fewer psychological and/or physical setbacks." Even so, student-athletes from both types of institutions do not agree that it is the athletic trainer's responsibility to provide spiritual care.

Overall, the student-athletes agree that spirituality and spiritual care could influence outcomes, knowledge about spirituality is relevant to medical care, and meeting an athlete's needs may involve tending to spiritual concerns. They also think athletic trainers should have basic skills to address spiritual concerns; however, they were less likely to agree that the athletic training curriculum should require spiritual content. Based on their responses, they see the value of addressing spirituality as part of an injured athlete's plan of care, but they do not think the responsibility solely belongs to an athletic trainer. As the athletic training profession and curriculum continues to evolve, perhaps the focus on psychosocial interventions will grow to include spiritual components to more closely resemble the requirements of other medical professions.

Compliance with Ethical Standards

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