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Kansas Physician Assistants' Attitudes and Beliefs Regarding Spirituality and Religiosity in Patient Care

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Abstract Research indicates patients want to discuss spirituality/religious (S/R) beliefs with their healthcare provider. This was a cross-sectional study of Kansas physician assistants (PA) regarding S/R in patient care. Surveys included questions about personal S/R beliefs and attitudes about S/R in patient care. Self-reported religious respondents agreed (92%) they should be aware of patient S/R; 82% agreed they should address it. Agreement with incorporating S/R increased significantly based on patient acuity. This research indicates Kansas PAs' personal S/R beliefs influence their attitudes toward awareness and addressing patient S/R.

Keywords Physician assistant · Spirituality · Religion

Introduction

The relationship between spirituality and religiosity (S/R) and positive health outcomes has been noted in the literature (Musick et al. 2004; Strawbridge et al. 1997; Hummer et al. 1999; Avants et al. 2001; Davis 2005; Purnell et al. 2009). Religious service attendance has been shown to be associated with reduced risk of death (Musick et al. 2004; Strawbridge et al. 1997). Furthermore, a sense of spiritual well-being has been significantly associated with improved psychological quality of life and less traumatic stress (Purnell et al. 2009).

Furthermore, research has indicated many patients desire their spiritual and religious beliefs be acknowledged by their healthcare provider and are likely to welcome these discussions based on their relationship with their provider or the severity of their illness

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(MacLean et al. 2003; Ehman et al. 1999; Hebert et al. 2001; Magyar-Russell et al. 2008; McCord et al. 2004; Carmody et al. 2008). Ehman et al. (1999) found that 66% of patients welcomed inquiry about their spiritual beliefs and religious practices in a routine medical history and felt this would enhance their trust in their physician, but only 15% of patients reported that their providers asked if spiritual or religious beliefs would affect their medical decisions. In the Religion and Spirituality in the Medical Encounter Study (RESPECT; MacLean et al. 2003), 66% of patients believed that physicians should be conscious of their patients' spiritual and religious beliefs, while 33% would welcome spiritual inquiry in an office visit, increasing to 40% in a hospital setting and 77% in a death and dying setting. Balboni et al. (2007) reported 88% of advanced cancer patients found religion very or somewhat important and higher overall spiritual support was positively associated with enhanced quality of life. However, 72% of patients felt their spiritual needs were met only to a small extent or not at all by the medical system and 42% found little or no spiritual support from a religious community or the medical system. Making their beliefs known may help patients feel their physician understands them better as a person, how they make decisions, and how their beliefs influence how they deal with illness (McCord et al. 2004).

A variety of healthcare professionals believe discussing spirituality and religiosity is an important part of patient care (MacLean et al. 2003; McCauley et al. 2005; Olson et al. 2006). Beliefs about the role of S/R in patient care have been studied among groups including medical students (Guck and Kavan 2006), residents (Luckhaupt et al. 2005) nurses (Cavendish et al. 2004) and physicians from fields including primary care (McCauley et al. 2005; Olson et al. 2006; Ellis et al. 2002; Koenig 2004) pediatrics (Armbruster et al. 2003) and psychiatry (Curlin et al. 2007); but it has not been addressed in the physician assistant population. In a survey of physicians, McCauley et al. (2005) found that 95% believed that a patient's spiritual outlook affected health, 68% agreed that addressing spirituality is part of the physician's role, but only 24% received training in spirituality (e.g., lecture or entire course). Reasons given by providers for including spirituality and religious discussions in patient encounters included importance of spirituality in their own lives (Ellis et al. 2002), the link between spirituality and health (Olson et al. 2006; Ellis et al. 2002) and to provide more integrated and holistic care (Olson et al. 2006).

Physicians have also reported barriers to discussing spirituality and religiosity with patients, most frequently lack of education and time (McCauley et al. 2005; Armbruster et al. 2003; Curlin et al. 2007; Ellis et al. 1999). In a study of the importance of faith in cancer patients, faith was ranked by the patients and their caregivers as second, only after provider recommendations, in considering treatment options, while oncologists ranked it least important, indicating a potential barrier based on the differing views of patient and provider (Silvestri et al. 2003). It was suggested that these findings did not indicate a lack of belief on the part of physicians, but perhaps the influence of their education or their level of discomfort in discussing personal issues such as religion with patients (Silvestri et al. 2003). Additionally, research has indicated that providers' personal religious beliefs do affect decisions they make regarding end-of-life care for their patients (Seale 2010).

Physician assistants (PAs) have become a vital part of the healthcare system. According to the American Academy of Physician Assistants, PAs provided greater than 250 million patient visits in 2007 and data indicate an increasing number of visits each year (American Academy of Physician Assistants {AAPA} 2008). The number of PAs working in hospital settings, where there are more critically ill patients, is also increasing (2008). Kansas currently has 877 actively licensed PAs (Kansas State Board of Healing Arts 2010). Researchers have looked at the attitudes and beliefs of a variety of healthcare professionals

concerning incorporation of spiritual and religious care in the patient encounter. However, there is a gap in the literature pertaining to the attitudes and beliefs of PAs.

For the purposes of this research, spirituality referred to "the domain of human existence which lies beyond the material—the aspects of life which give a sense of meaning, connection, integrity, and hope" (Wasner et al. 2005, p. 100). Religiosity was defined as "participation in the particular beliefs, rituals and activities of traditional religion" (Elkins et al. 1988, p. 8).

The purpose of this study was to assess attitudes and beliefs of Kansas PAs toward spirituality and religiosity in patient encounters, specifically:

1. to determine whether PAs believe their role is passive, limited to awareness, of S/R
2. to determine whether PAs believe their role is active, taking an active role in addressing S/R
3. to determine whether patient acuity influences a PA's level of engagement with regard to S/R
4. to assess the practices of Kansas PAs with regard to being aware of and addressing patient S/R
5. to determine the extent of and perceived need for S/R training of Kansas PAs
6. to assess self-reported barriers to incorporating S/R in the patient encounter

Methods

Design

This was a cross-sectional study exploring the attitudes and beliefs of Kansas physician assistants regarding spirituality and religiosity in patient care. The survey questionnaire was mailed to all PAs licensed in Kansas and included questions about general demographics, scope of practice, personal S/R beliefs, attitudes about S/R in patient care, frequency of S/R encounters with patients, and S/R education received. No monetary or personal gain was offered for completion. A second survey was mailed approximately 4 months later to PAs who did not respond to the initial survey.

Analysis

Demographic information is reported in frequencies and percentages. Pearson Chi-square analysis was conducted to determine differences in beliefs and practices in relation to attitudes about awareness and addressing S/R. Logistic regressions were performed on the passive behavior of awareness ("be aware of patient's spiritual and religious beliefs") or the more active behavior of addressing ("addressing spiritual needs is part of the PA role") as the dependent variables. Affirmation of being religious, having received spiritual or religious training as part of their formal PA education, sex, experience, race, and grouped specialty were identified as predictor variables. Age was highly correlated with experience and removed from analysis. PA behaviors were classified as passive (e.g., discussing s/r beliefs when asked or praying when asked) versus active (e.g., inquiring about a patient's s/r beliefs or offering to pray with the patient or family). Statistical significance was set at $P < 0.05$. Data analysis was conducted using PASW version 18.0 (IBM 2009).

Results

Demographics

Out of 779 licensed PAs in Kansas, 334 responded to the survey, resulting in an overall response rate of 42%. Demographics are listed in Table 1. The average age of respondents was 40.7 years old, and the majority were women (68%) and white (94%). Approximately half (52%) of respondents had a bachelor's degree, followed by master's (20%), and doctorate (17%). Family medicine was the most commonly reported primary specialty (38%). The average number of years in practice was 10.5 years.

Religious beliefs and practices are listed in Table 2. The majority of respondents described themselves as being spiritual (95%) and/or religious (81%) and having a religious affiliation (93%). The majority of PAs (91%) reported that they did not receive S/R training in their PA education.

Table 1 Characteristics of Kansas PA survey respondents ($n = 334$)

		PA should be aware of patient S/R		PA role includes addressing patient S/R	
	Total[a]	Agree ($n = 252$)	Disagree ($n = 30$)	Agree ($n = 218$)	Disagree ($n = 64$)
Demographics					
Age, mean (SD)	40.6 (11.2)	40.4 (11.4)	39.2 (9.4)	40.0 (11.7)	41.1 (9.7)
	f (%)	*f* (%)	*f* (%)	*f* (%)	*f* (%)
Sex					
Men	108 (32)	91 (93)	7 (7)	70 (74)	25 (26)
Women	225 (68)	192 (89)	25 (11)	163 (78)	46 (22)
Race					
White	305 (94)	259 (89)	31 (11)	213 (76)	66 (24)
Non-white	18 (6)	16 (94)	1 (6)	14 (82)	3 (18)
Education					
Bachelor	168 (52)	141 (88)	19 (12)	116 (75)	38 (25)
Master	151 (47)	132 (93)	10 (7)	111 (80)	27 (20)
Doctorate	2 (1)	1 (50)	1 (50)	1 (50)	1 (50)
Primary specialty					
Family medicine	124 (38)	101 (86)	16 (14)	89 (80)	23 (20)
Surgical specialties	65 (20)	57 (93)	4 (7)	45 (75)	15 (25)
Emergency medicine	55 (17)	51 (94)	3 (6)	46 (85)	8 (15)
Years in practice (mean, SD)	10.5 (8.1)	10.6 (8.3)	8.8 (6.3)	10.3 (8.2)	10.6 (7.7)

[a] Total respondents to survey item. Percentages may not equal 100% due to missing data

Table 2 Religious beliefs and practices of Kansas PA survey respondents ($n = 334$)

		Should be aware of pt S/R[b]				Address pt S/R is part of PA role[b]		
	Total *f* (%)	Agree ($n = 252$)	Disagree ($n = 30$)	*P*	Total *f* (%)	Agree ($n = 218$)	Disagree ($n = 64$)	*P*
Personal beliefs (self-reported)								
"I am religious"				0.01				<0.001
Agree	252 (81)	233 (92)	19 (8)		244 (81)	200 (82)	44 (18)	
Disagree	60 (19)	49 (82)	11 (18)		57 (19)	31 (54)	26 (46)	
"I am spiritual"				0.02				<0.01
Agree	294 (95)	268 (91)	26 (9)		285 (95)	225 (79)	60 (21)	
Disagree	15 (5)	11 (73)	4 (27)		15 (5)	7 (47)	8 (53)	
Beliefs are my "whole life approach"				0.03				<0.001
Agree	228 (73)	211 (93)	17 (7)		222 (74)	185 (83)	37 (17)	
Disagree	83 (27)	70 (84)	13 (16)		79 (26)	46 (58)	33 (42)	
Religious affiliation				0.61				0.07
Yes	283 (93)	254 (90)	29 (10)		274 (93)	213 (78)	61 (22)	
No	22 (7)	19 (86)	3 (14)		20 (7)	12 (60)	8 (40)	
Religious affiliation (self-reported)				0.66				0.41
Christian, non-catholic	191 (62)	174 (91)	17 (9)		183 (62)	142 (78)	41 (22)	
Catholic	88 (29)	76 (86)	12 (14)		87 (29)	68 (78)	19 (22)	
Other	6 (2)	6 (100)	0		6 (2)	5 (83)	1 (17)	
No religious affiliation	22 (7)	19 (86)	3 (14)		20 (7)	12 (60)	8 (40)	
Religious activity participation, mean (SD)								
Organized	1.1 (1.1)	1.1 (1.1)	0.9 (.7)		1.1 (1.1)	1.2 (1.1)	0.6 (.8)	
Personal	3.7 (3.7)	3.9 (3.8)	2.1 (2.8)		3.7 (3.7)	4.2 (3.8)	2.3 (3.3)	
Mission	0.14 (.5)	0.13 (.5)	0.18 (.4)		0.14 (.5)	0.17 (.5)	0.04 (.2)	
Religious practices (self-reported)								
Received S/R training in PA education				0.29				0.05

Table 2 continued

	Total	Should be aware of pt S/R[b]		P	Total	Address pt S/R is part of PA role[b]		P
	f (%)	Agree (n = 252)	Disagree (n = 30)		f (%)	Agree (n = 218)	Disagree (n = 64)	
Yes	26 (9)	25 (96)	1 (4)		26 (9)	24 (92)	2 (8)	
No	277 (91)	249 (90)	28 (10)		266 (91)	201 (76)	65 (24)	
Believe PAs should receive S/R training				<0.001				<0.001
Agree	182 (60)	178 (98)	4 (2)		176 (60)	155 (88)	21 (12)	
Disagree	123 (40)	96 (78)	27 (22)		119 (40)	70 (59)	49 (41)	

[a] Total respondents to survey item. Chi-square analysis; no parametric tests due to unequal sub-groups. Percentages may not equal 100% due to missing data

[b] Aware-a passive behavior (e.g., discussing when asked); Address-an active behavior (e.g., offering to pray)

Table 3 Kansas PA beliefs about religion in healthcare ($n = 334$)

	"I am religious"		
	Agree $n = 267$ f (%)	Disagree $n = 62$ f (%)	P
As a PA I believe…			
Like other patient behaviors, patient S/R beliefs positively affect health	255 (96.2)	46 (79.3)	<0.001
Faith professionals are integral members of the healthcare team	250 (95.1)	50 (86.2)	0.01
PAs should facilitate referrals to religious support services	214 (82.9)	41 (73.2)	0.09
PAs should avoid religious discussions for the fear of imposing one's own views	72 (29.0)	34 (64.2)	<0.001
PAs with no personal S/R faith system should			
Not discuss S/R issues with patients	80 (33.1)	21 (36.2)	0.64
Not pray with patients	97 (39.4)	27 (46.6)	0.32

Chi-square analysis; percentages calculated on valid data; frequencies based on agreement with belief statement

Kansas PA Personal Beliefs and Awareness of Patient S/R

A majority (89.9%) of respondents agreed that they should be aware of a patient's S/R beliefs in the patient encounter (a passive behavior). Ninety-two percent (92%) of respondents who agreed with the statement "I am religious" also agreed that they should be aware of a patient's S/R ($P = 0.01$). Eighty-two percent (82%) who disagreed with the statement "I am religious" still agreed that they should be aware of a patient's S/R (Table 2).

Ninety-one percent (91%) of respondents who agreed with the statement "I am spiritual" also agreed that they should be aware (a passive behavior) of a patient's S/R ($P = 0.02$). Seventy-three percent (73%) of those who disagreed with this statement still agreed that they should be aware of a patient's S/R (Table 2).

An analysis of Pearson's correlation coefficient revealed a statistically significant relationship between the variables "I am spiritual" and "I am religious" ($r = 0.53$; $P = < 0.001$). Therefore, further analysis was only conducted on the responses to "I am religious" statement.

Kansas PA Personal Beliefs and Addressing Patient S/R

Approximately three-fourths of PAs (76.7%) agreed that addressing a patient's S/R should be part of their role in the patient encounter (an active behavior). A majority of PAs (82%) who reported agreeing with the statement "I am religious" also agreed that it is their role to address patients' S/R needs ($P < 0.001$). A slight majority (54%) of those who reported disagreeing with the statement "I am religious" still agreed that they should address patient S/R (Table 2).

Seventy-nine percent (79%) who reported spiritual beliefs (agreed with "I am spiritual") agreed that it is their role to address patients' S/R needs ($P < 0.01$). Less than half (47%) of those who reporting not being spiritual believed that they should address patient S/R.

Table 4 Predictors of Kansas PA role in patients' S/R

Predictor	PA should be aware (passive)				PA should address (active)			
	B	Wald χ^2	*P*	OR	B	Wald χ^2	*P*	OR
Religion	1.25	7.18	<0.01	3.51	1.09	11.16	<0.001	2.98
S/R training	0.96	0.82	0.36	2.61	1.17	3.28	0.07	3.24
Sex	−0.38	2.33	0.12	1.62	0.41	1.92	0.16	1.52
Experience	0.48	1.11	0.29	1.21	0.19	1.11	0.29	1.21
Race	−0.52	0.4	0.52	0.59	−0.29	0.26	0.61	0.74
Occupation								
Acute	0.88	1.39	0.23	2.41	0.87	3.29	0.06	2.38
Hospital	0.46	0.38	0.53	1.58	−0.04	0.01	0.91	0.95
Primary	−0.63	1.16	0.28	0.53	−0.06	0.02	0.87	0.93
Chronic	19.18	0	0.99	0	−0.25	0.06	0.79	0.77
End-of-life	19.68	0	0.99	0	−20.96	0	0.99	0

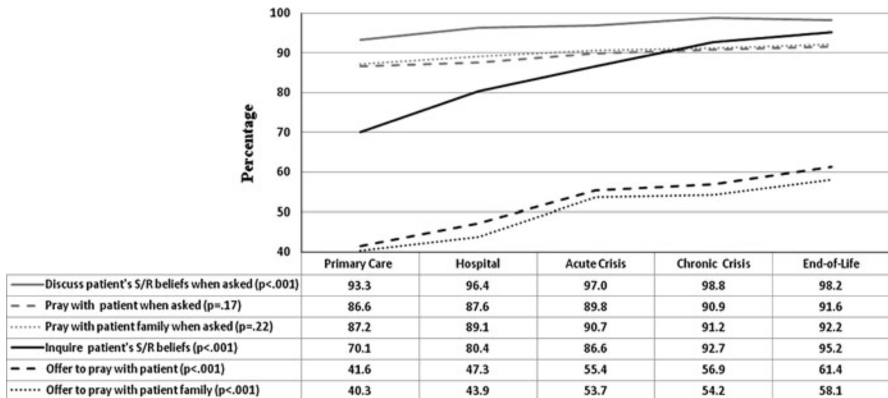

Fig. 1 Comparison of Kansas PA agreement with S/R behaviors based on patient acuity

Kansas PA Attitudes about S/R in Healthcare

Table 3 compared the responses to "I am Religious" (agree vs disagree) and proportions of those who also reported agreement with statements regarding attitudes and beliefs about S/R in healthcare. There were significant differences between the self-reported religious and non-religious in belief that a patient's S/R beliefs positively affect health ($P < 0.001$); faith professionals are integral members of the healthcare team ($P = 0.01$) and with regard to the belief that PAs should not avoid discussing religion for the fear of imposing their own views.

Factors Associated with Awareness of and Addressing S/R

A logistic regression analysis was conducted using religious affirmation, spiritual/religious training, sex, experience, race, and grouped occupation/specialty as predictor variables in order to examine whether PAs agreed that they should be aware (passive) of patients'

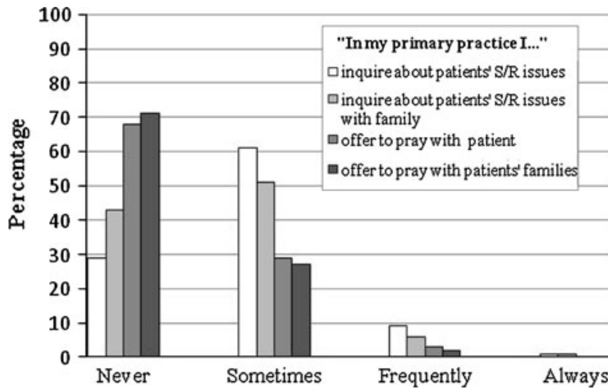

Fig. 2 Kansas PA self-reported practice behaviors

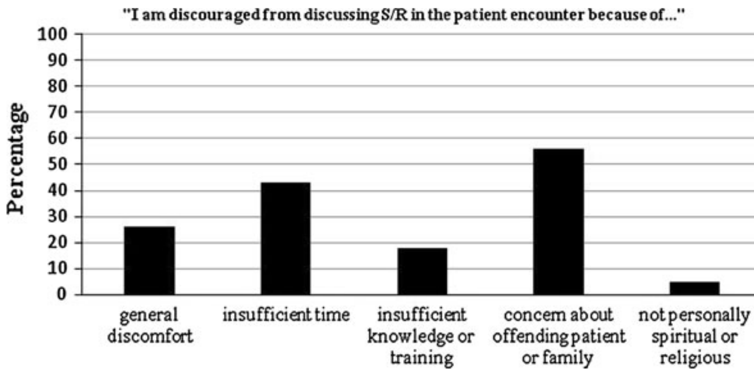

Fig. 3 Kansas PA self-reported barriers to addressing patient S/R

spiritual and religious beliefs (see Table 2). The Hosmer and Lemeshow test indicated that the data fit the model well, χ^2 (8, $n = 303$) = 9.09, $P = 0.335$. The model was able to correctly classify 100% of those who agreed that the PA should be aware, but none (0%) of those who disagreed that the PA should be aware for an overall success rate of 90.4%. Only religious affirmation was independently associated with the criterion variable (odds ratio 3.510, 95% CI, 1.401–8.792: $P < 0.05$). The PAs who agreed that they were religious were 3.5 times more likely than those who disagreed to believe that a PA should be aware (passive) of patients' spiritual and religious beliefs (Table 4).

A second logistic regression analysis was conducted using religious affirmation, spiritual/religious training, sex, experience, race, and grouped occupation/specialty as predictor variables in order to examine whether PAs agreed that it was their role to address (active) patients' spiritual and religious needs (see Table 2). The Hosmer and Lemeshow test indicated that the data fit the model well, χ^2 (8, $n = 303$) = 3.944, $P = 0.862$. The model was able to correctly classify 95.8% of those who agreed that it was the role of the PA and 18.7% of those who disagreed that it was the PA's role for an overall success rate of 72.6%. Only religious affirmation was independently associated with the criterion variable (odds ratio 2.987, 95% CI, 1.572–5.677: $P < 0.001$). The PAs who agreed that they were religious were almost 3 times more likely than those who disagreed to believe that it is the role of a PA to address (active) patient spiritual and religious needs (Table 4).

Influence of Patient Acuity on Kansas PA Attitudes and Beliefs

Figure 1 shows the respondents' agreement with incorporation of S/R in the patient encounter based on the patient's level of acuity. Respondents agreed more often to incorporate S/R in the patient encounter as acuity increased. Significant differences were found for discussing patients S/R beliefs across acuity of care (passive), but not praying with patient or family when asked. Significant differences ($P < 0.001$) were found between patient acuities on all active behaviors (inquiry, offer to pray with patient and/or family).

Practices of Kansas PAs

Respondents were asked about their behavior in the primary practice setting. A majority indicated that they "sometimes" engage in the behavior of inquiring about a patient's S/R with the patient or family (61, 51%, respectively). However, the majority indicated that they do not engage in offers of prayer with the patient or patient's family (68, 71%, respectively) (Fig. 2).

Barriers to S/R in the Patient Encounter

Respondents were asked to report barriers to incorporating S/R in the patient encounter. Concern about offending the patient or patient's family (56%) was the top reason for not engaging in S/R behaviors in the patient encounter, followed by insufficient time (43%) and general discomfort (26%) (Fig. 3). A majority of PAs (60.3%) indicated PA training programs should include an S/R component.

Discussion

The purpose of this study was to assess attitudes and beliefs of Kansas PAs toward spirituality and religiosity in patient encounters. Most Kansas PAs, whether reporting being spiritual and/or religious or not, agreed that they should be aware of patients' S/R beliefs, a passive behavior. Fewer PAs who reported being spiritual or religious, believed that patients' S/R should be addressed in the patient encounter, a more active behavior. These findings suggest that overall, Kansas PAs are more likely to be open to discussing S/R with patients if asked, but not actively involved in initiating conversation or offering to pray with the patient.

Studies involving beliefs and practices regarding S/R in the fields of nursing, various physician specialties, and medical students and residents have been conducted; however, there is a gap in the literature with regard to physician assistants. The evaluation of factors associated with beliefs demonstrated that personal beliefs (self-reported religiosity) were the only significant factors predicting Kansas PAs taking either a passive (aware) or active (address) role regarding S/R in the patient encounter. These results are similar to other clinical groups. Previous studies have found that physicians' believed their personal spiritual and religious beliefs influenced their interactions with patients and colleagues (Catlin et al. 2008; Ecklund et al. 2007). Religious beliefs were also associated with being less likely to or accepting of withholding or withdrawal of care, or to have administered medications to ease pain or to end life (Cuttini et al. 2000; Cohen et al. 2008) and objections to physician assisted suicide (Curlin et al. 2008). Similarly, Seale (2010) found physicians who reported themselves as "very" or "extremely" non-religious and who

practice in specialties other than palliative medicine, to be more likely to report having made a decision with the expectation or intent to end a patient's life.

Elevation of patient acuity is influential in provider attitudes toward religious and/or spiritual conversations in patient encounters. Analysis of attitudes based on the setting of care revealed that as the level of acuity intensified, and the PAs in this study reported being significantly more likely to engage in the active and passive behaviors identified earlier. Patients who report welcoming spiritual inquiry increases from office visits to end-of-life setting (RESPECT; MacLean et al. 2003) especially in advanced cancer (Balboni et al. 2007). Family physicians reported that addressing spiritual topics such as fears of death and dying and prayer more frequently in inpatient settings versus nursing home or outpatient settings (Ellis et al. 1999). Furthermore, Ellis et al. (2002) noted that physicians reported specific conditions and situations as more likely to call for a spiritual discussion, such as heart disease, miscarriage, or depression. As many patients desire S/R be included as part of their healthcare, and as increased demand may be seen within the aging population (who may be dealing with more end-of-life care issues), it is beneficial for healthcare providers to feel comfortable with and prepared to discuss spirituality or religion with patients regardless of personal beliefs. This in turn can serve to strengthen the patient–provider relationship, leading to improved health outcomes. PAs who are unable or unwilling to incorporate spirituality or religion into the patient encounter may be inadvertently overlooking an important component of care for the patient or the patient's family, which in turn may affect the outcome of the encounter and/or the patient's overall health.

The results of this study were similar to studies of other healthcare providers with regard to S/R education. A survey of physicians found that 68% agreed that addressing spirituality is part of their role; however, only 24% of respondents reported that they had received training in spirituality (McCauley et al. 2005). Physicians who reported formal S/R training (13%), 69% stated that they "sometimes" or "frequently" talked with patients or families about S/R concerns versus 47% for those who had not received such training (Grossoehme et al. 2007). A majority of PAs in this study also reported no formal S/R education. PA training programs may want to consider emphasizing S/R education as a vital component of the overall healthcare encounter.

Other barriers may exist that prevent providers from incorporating S/R into patient care, such as lack of time, low priority, and personal discomfort (McCauley et al. 2005). Family physicians expressed several themes in describing barriers to incorporating S/R into their practice including physician's own sense of spirituality at the time of the encounter (i.e., focusing on spiritual rather than medical issues), the appropriateness of such a discussion based on the patient's condition (e.g., minor injury), and collectively, time (Olson et al. 2006). The results of this research indicated several barriers to incorporating S/R in the patient encounter including fear of offending the patient or patient's family, lack of time, and personal discomfort.

This study was not without limitations. Kansas PAs may be more conservative than PAs in areas other than the Midwestern US. PAs with strong opinions regarding S/R in patient care could have a higher rate of survey response. PAs who identified themselves as spiritual or religious may feel more competent in their level of knowledge and therefore, more confident in their ability to provide S/R support to patients than those who reported they were not spiritual or religious. Future research could include a national survey focusing on the attitudes, beliefs, and practices of PAs, thus removing the geographical limitations faced here. Also, an assessment of S/R education in PA training programs may potentially reveal a gap in the curriculum.

Conclusion

This study sought to fill a gap in the literature with regard to PAs and their attitudes and beliefs about S/R in the patient encounter. Results indicated the majority of surveyed Kansas PAs agreed that they should be aware of a patient's S/R but that addressing patients' spiritual and religious needs varies on whether they identify themselves as spiritual or religious individuals, similar to other clinical providers. A patient's level of care also seemed to affect a PA's willingness to engage in or incorporate S/R in the patient encounter. The majority of the respondents in this study indicated that they believed spiritual and religious issues should be incorporated into PA training programs. PAs also identified barriers to incorporating such as lack of time and personal discomfort, which is similar to other research.

A patient's spiritual or religious beliefs may have a varying degree of personal importance in his/her care; however, the provider should be open to including S/R as needed in the patient encounter. Recognizing and addressing spirituality and religiosity in patient care may lead to a stronger patient–provider relationship, improved patient outcomes, and increased satisfaction with provider care.

References

American Academy of Physician Assistants Division of Data Services & Statistics. (2008). *Estimated number of patient visits and medications prescribed or recommended by physician assistants in 2007.* http://www.aapa.org/images/stories/iu07visitsandrx.pdf. Accessed 16 Nov 2008.

Armbruster, C. A., Chibnall, J. T., & Legett, S. (2003). Pediatrician beliefs about spirituality and religion in medicine: Associations with clinical practice. *Pediatrics, 111*(3), e227–e235.

Avants, S. K., Warburton, L. A., & Margolin, A. (2001). Spiritual and religious support in recovery from addiction among hiv-positive injection drug users. *Journal of Psychoactive Drugs, 33*(1), 39–45.

Balboni, T. A., Vanderwerker, L. C., Block, S. D., Paulk, M. E., Lathan, C. S., Peteet, J. R., et al. (2007). Religiousness and spiritual support among advanced cancer patients and associations with end-of-life treatment preferences and quality of life. *Journal of Clinical Oncology, 25*(5), 555–560.

Carmody, J., Reed, G., Kristeller, J., & Merriam, P. (2008). Mindfulness, spirituality, and health-related symptoms. *Journal of Psychosomatic Research, 64*(4), 393–403.

Catlin, E. A., Cadge, W., Ecklund, E. H., Gage, E. A., & Zollfrank, A. A. (2008). The spiritual and religious identities, beliefs, and practices of academic pediatricians in the United States. *Academic Medicine, 83*(12), 1146–1152.

Cavendish, R., Luise, B. K., Russo, D., Mitzeliotis, C., Bauer, M., McPartlan-Bajo, M. A., et al. (2004). Spiritual perspectives of nurses in the United States relevant for education and practice. *Western Journal of Nursing Research, 26*(2), 196–212.

Cohen, J., van Delden, J., Mortier, F., Lofmark, R., Norup, M., Cartwright, C., et al. (2008). Influence of physicians' life stances on attitudes to end-of-life decisions and actual end-of-life decision-making in six countries. *Journal of Medical Ethics, 34*(4), 247–253.

Curlin, F. A., Lawrence, R. E., Odell, S., Chin, M. H., Lantos, J. D., Koenig, H. G., et al. (2007). Religion, spirituality, and medicine: psychiatrists' and other physicians' differing observations, interpretations, and clinical approaches. *The American Journal of Psychiatry, 164*(12), 1825–1831.

Curlin, F. A., Nwodim, C., Vance, J. L., Chin, M. H., & Lantos, J. D. (2008). To die, to sleep: US physicians' religious and other objections to physician-assisted suicide, terminal sedation, and withdrawal of life support. *The American Journal of Hospice & Palliative Care, 25*(2), 112–120.

Cuttini, M., Nadai, M., Kaminski, M., Hansen, G., de Leeuw, R., Lenoir, S., et al. (2000). End-of-life decisions in neonatal intensive care: Physicians' self-reported practices in seven European countries. *Lancet, 355*(9221), 2112–2118.

Davis, B. (2005). Mediators of the relationship between hope and well-being in older adults. *Clinical Nursing Research, 14*(3), 253–272.

Ecklund, E. H., Cadge, W., Gage, E. A., & Catlin, E. A. (2007). The religious and spiritual beliefs and practices of academic pediatric oncologists in the United States. *Journal of Pediatric Hematology/oncology, 29*(11), 736–742.

Ehman, J. W., Ott, B. B., Short, T. H., Ciampa, R. C., & Hansen-Flaschen, J. (1999). Do patients want physicians to inquire about their spiritual or religious beliefs if they become gravely ill? *Archives of Internal Medicine, 159*(15), 1803–1806.

Elkins, D. N., Hedstrom, L. J., Hughes, L. L., Leaf, J. A., & Saunders, C. (1988). Toward humanistic phenomenological spirituality. *Journal of Humanistic Psychology, 11*(4), 5–18.

Ellis, M. R., Campbell, J. D., Detwiler-Breidenbach, A., & Hubbard, D. K. (2002). What do family physicians think about spirituality in clinical practice? *Journal of Family Practice, 51*(3), 249–254.

Ellis, M. R., Vinson, D. C., & Ewigman, B. (1999). Addressing spiritual concerns of patients: Family physicians' attitudes and practices. *Journal of Family Practice, 48*(2), 105–109.

Grossoehme, D. H., Ragsdale, J. R., McHenry, C. L., Thurston, C., DeWitt, T., & VandeCreek, L. (2007). Pediatrician characteristics associated with attention to spirituality and religion in clinical practice. *Pediatrics, 119*(1), e117–e123.

Guck, T. P., & Kavan, M. G. (2006). Medical student beliefs: Spirituality's relationship to health and place in the medical school curriculum. *Medical Teacher, 28*(8), 702–707.

Hebert, R. S., Jenckes, M. W., Ford, D. E., O'Connor, D. R., & Cooper, L. A. (2001). Patient perspectives on spirituality and the patient-physician relationship. *Journal of General Internal Medicine, 16*(10), 685–692.

Hummer, R. A., Rogers, R. G., Nam, C. B., & Ellison, C. G. (1999). Religious involvement and US adult mortality. *Demography, 36*(2), 273–285.

IBM Corporation. (2009). *PASW version 18.0. IBM SPSS.* IBM Corporation, Somers, NY.

Kansas State Board of Healing Arts. (2010). *Statistics page*. Retrieved from http://www.ksbha.org/statistics.html.

Koenig, H. G. (2004). Religion, spirituality, and medicine: Research findings and implications for clinical practice. *Southern Medical Journal, 97*(12), 1194–1200.

Luckhaupt, S. E., Yi, M. S., Mueller, C. V., Mrus, J. M., Peterman, A. H., Puchalski, C. M., et al. (2005). Beliefs of primary care residents regarding spirituality and religion in clinical encounters with patients: A study at a midwestern US teaching institution. *Academic Medicine, 80*(6), 560–570.

MacLean, C. D., Susi, B., Phifer, N., Schultz, L., Bynum, D., Franco, M., et al. (2003). Patient preference for physician discussion and practice of spirituality. *Journal of General Internal Medicine, 18*(1), 38–43.

Magyar-Russell, G., Fosarelli, P., Taylor, H., & Finkelstein, D. (2008). Ophthalmology patients' religious and spiritual beliefs—an opportunity to build trust in the patient-physician relationship. *Archives of Ophthalmology, 126*(9), 1262–1265.

McCauley, J., Jenckes, M. W., Tarpley, M. J., Koenig, H. G., Yanek, L. R., & Becker, D. M. (2005). Spiritual beliefs and barriers among managed care practitioners. *Journal of Religion and Health, 44*(2), 137–146.

McCord, G., Gilchrist, V. J., Grossman, S. D., King, B. D., McCormick, K. E., Oprandi, A. M., et al. (2004). Discussing spirituality with patients: A rational and ethical approach. *Annals of Family Medicine, 2*(4), 356–361.

Musick, M. A., House, J. S., & Williams, D. R. (2004). Attendance at religious services and mortality in a national sample. *Journal of Health and Social Behavior, 45*(2), 198–213.

Olson, M. M., Sandor, M. K., Sierpina, V. S., Vanderpool, H. Y., & Dayao, P. (2006). Mind, body, and spirit: Family physicians' beliefs, attitudes, and practices regarding the integration of patient spirituality into medical care. *Journal of Religion and Health, 45*(2), 234–247.

Purnell, J. Q., Andersen, B. L., & Wilmot, J. P. (2009). Religious practice and spirituality in the psychological adjustment of survivors of breast cancer. *Counseling and Values, 53*(3), 165.

Seale, C. (2010). The role of doctors' religious faith and ethnicity in taking ethically controversial decisions during end of life care. *Journal of Medical Ethics, 36*(11), 677–682.

Silvestri, G. A., Knittig, S., Zoller, J. S., & Nietert, P. J. (2003). Importance of faith on medical decisions regarding cancer care. *Journal of Clinical Oncology, 21*(7), 1379–1382.

Strawbridge, W. J., Cohen, R. D., Shema, S. J., & Kaplan, G. A. (1997). Frequent attendance at religious services and mortality over 28 years. *American Journal of Public Health, 87*(6), 957–961.

Wasner, M., Longaker, C., Fegg, M. J., & Borasio, G. D. (2005). Effects of spiritual care training for palliative care professionals. *Palliative Medicine, 19*(2), 99–104.