

INCREASING NURSES' SPIRITUAL PERSPECTIVES AND SPIRITUAL CARE
THROUGH A SPIRITUAL EDUCATIONAL PROGRAM

by

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DEDICATION

I want to dedicate this Practice Inquiry to my husband, Todd, for his selfless sacrifice of giving me this time to achieve my doctorate, while putting his dreams aside. I dedicate my success to him for his love, support, and his belief in me.

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ABSTRACT

There are no protocols in the literature describing how spiritual care from nursing staff should be provided to a bone marrow transplant patient and their family. Although a majority of nurses think that routine spiritual care would positively impact patients, only 25% of patients have reported receiving spiritual care. Increased education has been associated with positive perceptions of spiritual care. The solution to this need will be researched through a secondary data analysis from pre/post surveys from implementation of an education program on spiritual care for BMT nurses. The hypothesis of this PI is that a spiritual education program will enhance spiritual perspectives in nurses and increase spiritually-focused nursing care with patients. The purpose of this PI is to determine if a spirituality training class for Bone Marrow Transplant nurses will increase nurses' spiritual perspectives and their spiritual care of patients. A second purpose is to examine the relationship between nurses' spiritual perspectives and extent of spiritual care at both pre- and post- educational program times.

This study is a secondary analysis of a data set from a pre/post survey of BMT nurses who attended a spiritual education program. Nurses were surveyed using the SPS tool and a NSQ tool. The spiritual education program was a one day, six hour class that was taught by the research team, and divided into sessions. There were 43 BMT nurses who completed the class and the posttest one month after taking the class. The slight increase of scores from pre- to post-survey with the SPS suggests that the spiritual education program provided a slight enhancement of personal spiritual perspectives and assisted the participants to reflect and further develop their values and beliefs on spirituality. The hypothesis that a spiritual education program would increase the frequency of spiritual care that nurses provided to patients was strongly supported. These findings suggest that participating in a spiritual education program provides the nurse with

information that will enable one to conduct spiritual assessments, become more comfortable developing an individualized patient spiritual care plan, and accepting that providing spiritual care is part of a nurse's job description.

CHAPTER 1: STATEMENT OF THE PROBLEM

It is generally known that because of the life threatening nature of a cancer diagnosis, some patients may have significant spiritual needs (O'Brien, 2003). A number of researchers believe that well being and healing are dependent on spirituality (Larson et al., 1992; Cohen et al., 2000 as cited in Naayanasamy, 2003). Spirituality can be defined as an inner dimension that motivates people to be connected with others and their environment (Narayanasamy, 2002). This is distinguished from religion, which is defined as a social institution where individuals usually share the same beliefs, traditions, and rituals (Edwards et al., 2010).

For the purposes of this study, spirituality was defined as the inner dimension that motivates people to be connected with others and their surroundings. It drives people to search for meaning and purpose, and establish positive and trusting relationships with others. It provides people with a sense of wholeness, stability, wellness, security, hope, and peace. It comes into focus when people face emotional stress, physical illness, or death (Narayanasamy, 2002). Spiritual care has been defined as when the nurse creates an environment, for the patient and family, of respect for their human rights, values, beliefs, and spiritual practices (The International Council of Nurses Code of Ethics for Nurses, 2006).

Some patients have identified that having their spiritual needs met is a priority, and they want nurses to discuss spiritual issues with them (Wu et al., 2012). As many as 20 to 40% of patients show a significant level of spiritual distress from unmet spiritual needs, but only 10% are actually identified and referred for help. The National Comprehensive Cancer Network (NCCN, 2007) stated that failure to recognize and to treat spiritual distress results in increased visits to physicians' offices and the emergency department, and decreases the patient's ability to make decisions and comply with treatment. Nurses could help the patient communicate spiritual

expressions and respond to their own spiritual needs. By providing spiritual care; that could prevent spiritual distress (Edwards et al., 2010). However, nurses may not be well-prepared to provide spiritual care and have little training in providing spiritual interventions. There is also a lack of information on exactly how to provide spiritual care in general. Watson's theory of Caring stated that its main goal was the mental and spiritual growth for nurses and patients, and finding meaning in one's own existence and experience. The problem occurred by a deficit in human transcendence; which caused disharmony of the mind, body, and soul. To resolve this problem, the nurse needed to use the entire self, validating the significance and the feelings of the patient (Meleis, 2007). Watson defined caring as an interaction focused on honor, respect, spirituality, dignity, and hope, and in order to care for others, one must care for themselves. Therefore, it is the nurse's responsibility to address spiritual issues with patients as a way of exemplifying the caring nature of the profession.

The focus of this study was on nurses' educational training in spiritual care for nurses who work with patients with serious illnesses that require a bone marrow transplant (BMT). Although not all patients undergoing a bone marrow transplant have a cancer diagnosis, this disease process was the focus for this Practice Inquiry (PI).

Background and Significance

The Oncology Nursing Society's (ONS) position statement on patient rights require timely and appropriate management of physical, psychosocial, cultural, and spiritual needs of the cancer patient and their family. ONS also stresses the importance of using evidence-based practice when providing spiritual care, as well as the need to work in collaboration with spirituality professionals. The ONS (ONS, 2005) recommendations are applicable to oncology nurses, as spiritual care is a necessary component of oncology nursing practice, and evidence-

based spiritual care interventions should be sought out and provided. Analysis of data from 1,732,562 patients' satisfaction data, collected by Press Ganey Associates Inpatient database, indicates that general populations of patients are ranking emotional and spiritual needs as their number two concern on the National Inpatient Priority Index (Clark, Drain & Malone, 2003). Research shows that patients want to establish a good rapport, and have a trusting, personal relationship with healthcare providers; specifically nurses (Edwards et al., 2010).

Recognizing one's spiritual perspectives could be seen as essential to providing effective spiritual care (Edwards et al., 2010). Also, research has shown that nurses with a higher personal sense of spiritual well-being have more positive attitudes toward providing spiritual care, and a way to achieve spiritual well-being was through promoting spiritual reflection (Chism & Magnan, 2009). Watson believed that caring was essentially a spiritual act that helped others to achieve a greater sense of self, harmony of the body, mind, and soul (Meleis, 2007). To achieve Watson's definition of caring, it is suggested that nurses need to develop a personal spiritual perspective (Chung et al., 2006).

Research has shown that the way nurses perceive their own spirituality affects the degree by which the patient's spiritual needs are recognized and the way interventions are planned and implemented (Chung et al., 2006). When developing a spiritual care education class for nurses, focus should be on the spiritual development so the nurse can complete a more holistic, complete assessment (Puchalski & Guenther, 2012). In order to promote healing, the nurse needs self-awareness of her/his humanness on an intellectual, physical, psychosocial, and spiritual level. One of the main goals for courses in spirituality is that healthcare professionals address their own spirituality so they can show compassion and be present to the patient's suffering. In addition,

spirituality classes should include engaging in reflective work to identify values, beliefs, and attitudes (Puchalski & Guenther, 2012).

Purpose

The purpose of this Practice Inquiry (PI) is to determine if a spirituality training class for Bone Marrow Transplant nurses will increase nurses' spiritual perspectives and their spiritual care of patients. A second purpose is to examine the relationship between nurses' spiritual perspectives and extent of spiritual care at both pre- and post- educational program times.

Currently, there are no protocols in the literature describing how spiritual care from nursing staff should be provided to a bone marrow transplant patient and their family. Although national guidelines indicate that attention should be given to the spiritual needs of patients, little information exists to direct spiritual care (Phelps et al., 2012). Phelps et al. (2012) reports that although a majority of nurses (85.1%) think that routine spiritual care would positively impact patients, only 25% of patients have reported receiving spiritual care. Phelps et al. (2012) also concluded that increased education has been associated with positive perceptions of spiritual care.

Research shows that formal spiritual care training and education were rare, although training staff to recognize spiritual issues and the needs of religious groups were viewed as important (Edwards et al., 2010). There is also a lack of literature on the subject of spirituality in nursing education (Wu et al., 2012). The solution to this unmet need will be researched through a secondary data analysis from pre/post surveys from implementation of an education program on spiritual care for BMT nurses. The hypothesis of this PI is that a spiritual education program will enhance spiritual perspectives in nurses and increase spiritually-focused nursing care with patients.

Theoretical Framework

A theoretical framework should consist of developing an empiric theory through research that structures ideas into a systematic view of phenomena. A theoretical framework should consist of concepts and their definitions, and assumptions made about the interrelationships of the concepts (Chinn & Kramer, 2008). For the purpose of this study, the theoretical framework was focused on establishing a link between a spiritual education programs and providing self-reflection to enhance personal spiritual perspectives. This enhancement was theorized to enable further identification of values, beliefs, and attitudes toward spirituality, concluding in an increased knowledge of spiritual care interventions. This theoretical framework was focused on the expected effects of spiritually-focused education on nurses' self-awareness of spirituality and their spiritual interactions with patients. Concepts that were incorporated included a spirituality education program, nursing spiritual perspectives, and nursing provided spiritual care.

Spirituality is differentiated from the concept of religion. Religion is a social institution that individuals join or organize and the individuals usually share the same beliefs, traditions, and rituals. Religion has boundaries and spirituality doesn't necessary have any boundaries (Edwards et al., 2010). Spirituality is seen as a patient need that affects decision-making in healthcare, and it affects healthcare outcomes, including quality of life (Puchalski et al., 2009).

A spirituality education program has been defined as a course that addresses the role of spirituality in nursing patient care, integration of reflective processes to enhance spiritual perspectives, providing resources for spiritual care, education on spiritual interventions, and identifying spiritual and cultural issues (Puchalski et al., 2009). Spiritual education programs should attempt to improve attitudes toward providing spiritual care and increase spiritual perspectives. Education should include small group discussions, case studies or scenarios, focus

groups, journal entries, and encouraging the nurses to discuss past experiences that could have benefitted from spiritual care interventions. Additional education could include seminars, classes, formal and informal teaching in school curricula and continuing education (Cerra & Fitzpatrick, 2008). Assignments should focus on examining the nurse's own personal beliefs on spirituality and promoting ease in discussing about spiritual matters (Lemmer, 2010).

Nursing spiritual perspectives has been defined as being aware of one's own humanness (Sulmasy, 2006), being able to find meaning in one's own existence and experience (Meleis, 2007), and being able to identify his/her values, beliefs, and attitudes toward spirituality (Puchalski & Guenther, 2012). Developing spiritual perspectives should include reflecting on one's own beliefs and how those beliefs affect the nurse's attitudes and behaviors (Lemmer, 2010). Winslow and Winslow (2003), discussed that nurses should explore and understand their own spirituality before engaging in spiritual care, because this understanding will promote respect when providing spiritual care. A lack of spiritual perspective could result in providing uncomfortable or inappropriate spiritual care, or not providing any spiritual care (Winslow & Winslow, 2003). The terms spiritual self-awareness and spiritual perspectives were used interchangeably in this study.

Spiritual care has been broadly defined as care provided by the nurse that addresses spiritual issues, identifies unmet spiritual needs, provides interventions that promote spiritual well-being, and resolves spiritual conflicts (Edwards et al., 2010; Wu et al., 2012). The International Council of Nurses Code of Ethics for Nurses (2006), discussed that spiritual care is when the nurse creates an environment, for the patient and family, of respect for their human rights, values, beliefs, and spiritual practices. In this study, spiritual care specifically measured

the extent to which nurses incorporated key nursing actions in their patient care. These behaviors are stated in the instrument and address, for example, assessment and plan of care.

Figure 1 outlines the core ideas from the theoretical framework and assumptions underlying this study. Basically, it is proposed that a spiritual education program can affect an increase in spiritual care and spiritual assessments by nurses.

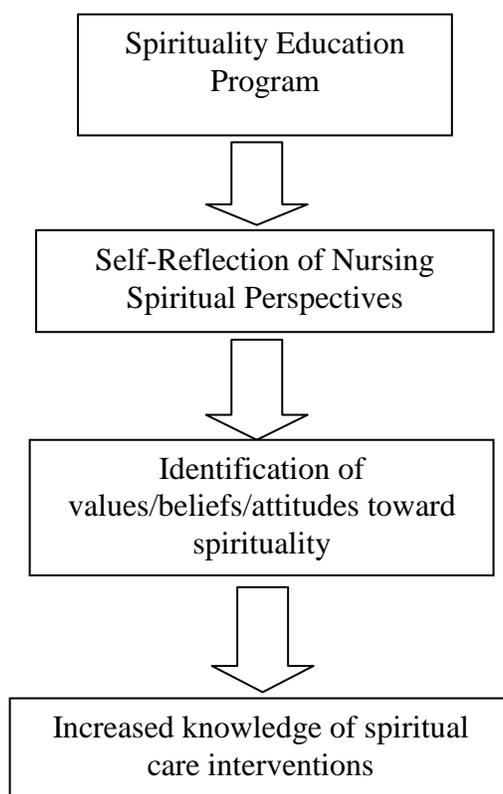


FIGURE 1. Theoretical Model

Assumptions

Four assumptions underlay this theoretical framework. First, a spirituality education program would provide opportunity for the nurse to engage in self-reflection on spiritual issues, and secondarily, the nurse would be able to identify her/his values, beliefs, and attitudes toward spirituality (Puchalski & Guenther, 2012). These two assumptions could be implied because the focus of the class should be on the spiritual development of the nurse. One of the main goals for courses in spirituality is that healthcare professionals address their own spirituality, and engage in reflective work to identify values, beliefs, and attitudes (Puchalski & Guenther, 2012).

The third assumption was that promoting spiritual self awareness would improve the delivery of spiritual care (Chung et al., 2006). Nurses who are self-aware of their own spirituality tend to be more sensitive and willing to participate in a personal manner with their patients. Statistically positive relationships have been identified linking perceptions of personal spirituality and spiritual care interventions (Cerra & Fitzpatrick, 2008). Nurses are viewed as bio-psycho-social-spiritual beings and spirituality can be considered the core (Meleis, 2007). Therefore, if spiritual perspectives are enhanced, the nurse can spiritually assess the patient's needs and develop effective spiritual interventions (Chung et al., 2006).

The fourth assumption was that if nurses were provided opportunity for spiritual self-reflection and education on how to provide spiritual care to patients, the nurse would feel comfortable and be willing to apply this knowledge when delivering patient care (Cerra & Fitzpatrick, 2008). Participants of formal spirituality courses indicated having a higher level of awareness of spirituality in their nursing practice. Students that had participated in a spirituality course reported a higher level of confidence and comfort when engaging in spiritual discussions (Lemmer, 2010).

Research Questions

This study was a secondary analysis of a data set from a pre/post survey of BMT nurses who attended a spiritual education program. Nurses were surveyed used the Spiritual Perspective Scale (SPS) developed by Reed (1986) and a Nurse Spirituality Questionnaire (NSQ) developed by the research team. This study aimed to answer three research questions:

- 1) Did nurses' spiritual perspectives increase after participation in a spirituality education program?
- 2) Did a spirituality education program increase nurses' spiritual care with patients?

- 3) What was the relationship between the nurses' spiritual perspective and spiritual care at pre-test and post-test?

CHAPTER 2: LITERATURE REVIEW

For this literature review, CINAHL and OVID databases were reviewed to identify pertinent research studies on nursing education in spirituality, and on nurses' spiritual self-awareness or perspective as related to their patient interactions. Inclusion criteria included articles between 2003-2013, English language, primary research studies and systematic and literature reviews, and availability of full-text online or by request. Nine articles were identified as pertinent to this study for critical appraisal and analysis.

Spiritual Perspectives

Cerra and Fitzpatrick (2008), examined whether nurses' overall spiritual perspectives and spiritual well-being were improved by implementing a spiritual care educational model. This study included 41 nurses from medical, surgical, and telemetry units in one 160-bed community hospital in the Northwest. The educational class included a two-hour lecture on themes of self-awareness, spirituality, and the spiritual dimensions of nursing care. The lectures were based on the ASSET model developed by Narayanasamy (1999). A pre- and post- test study design evaluated the effects of the class on nurses' spiritual perspectives and well-being. The instruments used for the pre- and post- tests included the Spiritual Perspectives Scale (SPS) developed by Reed (1986), and the Spiritual Well-Being Scale (SWBS) developed by Paloutzian (2002) and Ellison (1982). A paired sample t-test was used to analyze the impact of the class on the nurses' posttest SPS. There was a statistically significant increase in SPS scores from the pretest SPS to the posttest SPS ($t [40] = -4.94; p < 0.005$). A paired sample t-test was used to analyze the effect of the class on the nurses' spiritual well-being (posttest SWB scores). There were no statistically significant differences in the scores between the pre- and post- tests for SWBS. It was found that nurses that had attended religiously affiliated schools ($n=7$) had higher

scores on the existential spiritual well-being subscales (EWBS). The results showed that the spiritual education class improved nurses' spiritual perspectives. Limitations included that the sample of nurses already had a pre-established overall higher sense of spiritual well-being, which makes them more aware of their spirituality. Future research recommendations include identifying the effectiveness of different methods of teaching spiritual care to nurses (Cerra & Fitzpatrick, 2008).

Edwards et al. (2010) conducted a systematic review of qualitative studies to identify the concept and definition of spirituality, to explore beliefs, experiences, and expectations of spirituality, spiritual needs, pain or distress and spiritual care, and how, by whom, where, what and when spiritual care can most effectively be provided. The methodology used was a meta-study which focuses on analysis and synthesis. Seven databases were searched, and 19 studies were identified after exclusion and inclusion criteria were met. Eleven of the studies were patient oriented and eight were healthcare giver articles. The studies were published between 2001-2009 and the total number of patients was 178. Five of the patient articles looked directly at spirituality, four looked at spiritual needs or concerns, and one looked at the doctor-patient relationship. Two articles looked at spiritual pain or distress, and six articles looked at spiritual care. Most of these studies used single interviews, although sampling methods were not always specified. More than half of the patients were interviewed at home. Seven studies were completed at a hospice or a palliative care unit, and two-thirds of the patients had cancer. There were eight healthcare giver articles that focused on spiritual care. Six additional studies looked at spirituality, spiritual distress, and how to assess spiritual needs. Most of these studies used single, semi-structured interviews. Five studies used purposive and snowball sampling. All the studies took place in a hospice or palliative care unit, with one study in a tertiary care unit. A thematic

analysis was done on the studies included. Pertinent findings were that spiritual self-awareness was vital to providing spiritual care. Findings also validated that formal spiritual care training and education are rare and it was thought that it could impede spiritual care. It was found that structured spiritual care training on recognizing spiritual issues and needs was important.

Edwards et al. (2010) did not specify on what types of educational interventions would most effectively train nurses on providing spiritual care and enhance spiritual self-awareness.

Limitations included that mixed method studies were excluded, and the reviewers could have used personal filters to include specific studies. Also, generalization is limited from diverse populations because most of the study samples included white, Judeo-Christian participants, with a cancer diagnosis. Future research recommendations suggest exploring if these findings apply to patients in acute and long-term care, and include patients with mental health issues, cognitive impairment, and communication difficulties. Also, samples should include diverse ethnic and religious groups (Edwards et al., 2010).

Wu, Liao and Yeh (2012) conducted a study to identify student nurse perceptions of spirituality, spiritual care, and related factors. A cross-sectional descriptive design and purposive sampling was used. The sample included 239 participants of senior nursing students from 21 schools in Taiwan. The study instrument was a Chinese translation of the Spirituality and Spiritual Care Rating Scale (SSCRS-C) developed by McSherry, Draper and Kendrick (2002). An independent t-test and one-way analysis of variance (ANOVA) was used to analyze the differences in the students' perceptions of spirituality and spiritual care provisions. Findings indicated a statistical significance in the mean score for SSCRs-C among students in different spirituality classes ($t=2.75$, $p=.01$) and spiritual care courses ($t=2.24$, $p=.03$). Gender greatly affected the spiritual care subscale ($t=-2.12$, $p=.04$). Findings indicated that nursing students had

clear perceptions of their spirituality and spiritual care. More spiritual education and training was found to increase perception level. Findings also concluded that nursing schools did not satisfy the education needed to provide spiritual care. Participants expressed that there was not enough spirituality education in nursing school. Wu, Liao and Yeh (2012) concluded that if there is insufficient spiritual education, spiritual care may not be sufficiently addressed. Limitations included that the sample was only from students enrolled in junior college and almost half the sample reported no practicing religion. Future research should include more participants (Wu, Liao & Yeh, 2012).

Van Leeuwen and Cusvelier (2004) conducted a study to identify what competencies professional nurses need to provide spiritual care. This literature review used a quantitative, semi-structured, and explorative design. Three databases were searched, and 29 studies were included in this review from 1995-2002. Three main domains were identified and six core competencies. The three domains included awareness and use of self, spiritual dimensions of the nursing process, and assurance and quality of expertise. The six core competencies included handling one's own beliefs, addressing the subject, collecting information, discussing and planning, providing and evaluating, and integrating into policy. Pertinent findings included that the nurse needs to understand how to provide spiritual care through education, and the nurse needs to develop spiritual self-awareness to provide effective spiritual care to patients of various cultures and beliefs. Results of the review indicated that spiritual education should use reflection as a way to improve spiritual perspectives. Limitations include the small sample of articles reviewed and that the results of this review were not from a survey from clinical experience (Van Leeuwen & Cusvelier, 2004).

Summary

These research studies support the necessity of a spiritual education program to teach nurses how to provide spiritual care to patients. The data also supports that spiritual education is lacking in nursing programs and in nurses' training in general (Edwards et al., 2010; Wu, Liao & Yeh, 2012). Spiritual education and training was found to increase spiritual perception levels in nurses, which supports the hypothesis that spiritual education would improve spiritual self-awareness (Wu, Liao & Yeh, 2012; Cerra & Fitzpatrick, 2008). Reflection was found to improve spiritual self-awareness when incorporated into spiritual education, which supports this educational method used in this PI (Van Leeuwen & Cusvelier, 2004). Weaknesses in these studies included the lack of diversity in the samples, the heightened interest of the samples in spiritual matters, and the lack of specific interventions used in spiritual educational programs.

Spiritual Care

Chung, Wong and Chan (2007) conducted a study to explore if there was a connection between nurses' spirituality and their understanding and practice of spiritual care. They defined spirituality as a relationship with the self, which they called the self dimension, and with a dimension beyond the self, which they called the beyond dimension. A convenience sample of 61 nurses was used from a nursing school in Hong Kong. The questionnaire developed for this study, the Nurses Spirituality and Delivery of Spiritual Care (NSDSC), demonstrated internal reliability. The Mann-Whitney U and Kruskal-Wallis tests were used to identify a relationship between demographic variables, spirituality, understanding and practice of spiritual care. There was no statistical significance between demographic variables, the self, and understanding and practice of spiritual care, except for nurses' religion. Multiple linear regressions were used to identify if the 'self' contributes to understanding and practice of spiritual care. Statistical

significance was shown ($\beta=1.06$ [t] =10.74, $P<0.001$) in relation to understanding of spiritual care. Looking at spiritual care, the involvement of the self showed a statistical significance ($\beta=0.68$, [t] =3.62, $P<0.001$). Findings identified a statistically significant relationship between nurses' self, beyond dimension, understanding and practice of spiritual care. There was not a statistically significant relationship between nurses' spirituality and the practice of spiritual care. Limitations include the lack of generalizability due to the sample being from one school in Hong Kong. Future research recommendations include researching these findings with a larger sample of nurses and patients, and using qualitative methods of analysis (Chung, Wong & Chan, 2007).

Phelps et al. (2012) conducted a study to identify patients, nurses', and physicians' perceptions of spiritual care. This study was multi-institutional, and used qualitative and quantitative methods of analysis. The sample included 75 patients with advanced cancer and 339 cancer physicians and nurses. The providers completed a Web-based survey, and the patients participated in semi-structured interviews. Thematic analysis was performed by triangulation. A multivariable ordinal logistic regression model was used to establish relationships between the participants' demographics and attitudes about spiritual care. Findings showed that although most of the participants (patients [77.9%], physicians [71.6%], and nurses [85.1%]) thought spiritual care would benefit patients, only 25% of patients reported receiving spiritual care. Patients with positive perceptions of spiritual care had a strong relationship with receiving spiritual care in the past. Spiritual care was found to be associated with patients' satisfaction with care and a higher quality of life. About 12% of participants thought spiritual care would violate patients' privacy and that spirituality and medicine should not be combined. Thirty percent of participants thought that providing spiritual care should be determined on an individual basis.

Phelps et al. (2012) concluded that due to the reported infrequency of spiritual care provided, that this patient need is not effectively being met. Limitations include sampling from one geographic area and a limited ethnic diversity of patients. The themes are reported to be underestimated, so the frequencies and differences between participants can lead to future research (Phelps et al., 2012).

Cockell and McSherry (2012) conducted a literature review to provide an overview of spiritual care in nursing with the aim that nurses and nurse managers could use this information to improve quality of care and improve spiritual care practices. The review included studies from 2006-2010, with primary research studies on spiritual care that only involved healthcare providers. Only the CINAHL database was searched, so this was not a systematic review. The review identified areas in spiritual care that had been researched, themes of the research, designs of the research studies, and findings. The 80 studies identified were divided into groups and did overlap according to the theme. More studies were quantitative than qualitative, and six of the studies used a mixed method. Most of the studies (66) used descriptive elements such as dignity, holistic care, meaning and purpose, hope, coping and existential distress. The first two groups were nurse education (10) and care of practitioners (16). Findings showed that spiritual care is beneficial to the nurse and the patient. Findings also showed a connection between the spiritual education that nurses receive and the spiritual care they provide their patients.

The third group of studies included the descriptive and correlative studies (66). Findings from these studies provide the nurse manager with up-to-date understanding of the nature and context of spiritual care. The fourth group was studies that were using assessment tools before and after an intervention (4). These studies measured the effect of the intervention, such as a clinical interview on spiritual care, cognitive behavioral therapy for the provider, a nursing

education unit, and a technique developed to decrease stress and improve hardiness. Findings included a positive correlation between educational attainment, how one perceives their own spirituality, and providing spiritual care. Implications from these studies suggest that spiritual education and training can improve cultural awareness and spiritual care. The fifth group of studies (24) included studies in palliative care or oncology settings. Findings indicate that spiritual care is well accepted in these settings. The last group looked at culture (8), including organizational culture. Findings indicated that nurses need to be aware of cultural influences when providing spiritual care. Cockell and McSherry (2012) concluded that spiritual care training and education is fundamental to providing the most current and effective care.

Summary

This review identified that incorporating oneself into providing spiritual care was beneficial, although there was not a statistical significance between nurses' spirituality and the spiritual care they provide (Chung, Wong & Chan, 2007). Healthcare providers thought providing spiritual care is important, however only 25% of patients reported receiving spiritual care (Phelps, 2012). This supports the focus of this PI, and the necessity of educating healthcare providers on how to provide spiritual care. Spiritual care was identified as important to the nurse and the patient, although it was not clearly discussed what spiritual care entails. A link was found between spiritual education that nurses receive and the spiritual care they provide to their patients. Findings also indicate that nurses need to be educated on cultural and religious influences when providing spiritual care (Cockell & McSherry, 2012). Since this was identified as a need, this PI used a Judeo-Christian historical incorporation of spiritual care into nurses, and then addressed multiple religious and cultural practices and spiritual beliefs. Weaknesses of these studies include the lack of generalizability and the lack of ethnic variation.

Nursing Students and Spiritual Education

Lovanio and Wallace (2007) conducted a study to develop and test a nursing student education program on spirituality. The aim of the program was to increase the knowledge and understanding of nursing students when they provide spiritual care. This study was a pilot program that if proven effective, would be implemented permanently into the nursing school curriculum. This was a quantitative study with a purposive, convenience sample of 10 sophomore nursing students in their first clinical rotation. This sample was chosen based on their expression of interest in spiritual care. They used the Spirituality and Spiritual Care Rating Scale (SSCRS) to assess the degree of nursing students' knowledge of spirituality and spiritual care. The SSCRS was given before and after the spirituality educational program. The intervention involved an educational presentation, and discussion on presence, prayer, and reminiscence. The education included journaling and reflecting on personal experiences, reviewing current spirituality literature, and developing a care plan related to spirituality. Pretest scores ($M=64.30$; $SD=4.88$) were compared with the posttest scores ($M=68.30$; $SD=3.83$) using paired t-tests. Findings indicate there is an increase in nursing students' level of spirituality, knowledge and understanding of how to provide spiritual care after the intervention was implemented. The findings supported the implementation of this spirituality educational program into the curriculum. Limitations included the small sample size, lack of generalizability, and the biased sample with an interest in spiritual care. Future research recommendations included studying how spirituality can be taught in the classroom, and how spiritual interventions can be implemented into clinical practice (Lovanio & Wallace, 2007).

Giske and Cone (2011) conducted a study to identify undergraduate nursing students' perspectives on spiritual care and how they learn to assess and provide spiritual care to patients.

This was a qualitative study that used a grounded theory design. The methodology included data collection by semi-structured interviews at three Norwegian University colleges. The study included 42 nursing students in eight focus groups. The data was analyzed by constant comparison of transcribed interviews until saturation was achieved. Theoretical coding and sorting was performed until a three stage basic social process emerged. Findings included the participants' main concern was how to form a professional relationship with patients and sustain the rapport when spiritual concerns surfaced. A theme emerged of preparing for connection with a sub-phase of knowing oneself more deeply. It was acknowledged that reflecting on one's background, worldview, and knowledge, affected their maturity, strengths, and limitations. Not knowing one-self deeply led to a limitation when caring for patients who had a different faith or value system than the nurse. It was acknowledged that spiritually knowing oneself allowed the nurse to communicate and work well with patients. Giske and Cone (2011) concluded that learning in a classroom setting can assist the nurse in providing improved spiritual care. Spiritual self-awareness was critical to providing effective spiritual care, in particular in identifying inner wounds, hard times, and vulnerabilities. Reflection was recommended as a method to enhancing self-awareness. It was also concluded that spirituality education should include role playing, sharing of experiences, discussing theory, and completing assignments using case studies and clinical scenarios (Giske & Cone, 2011).

Summary

These studies identified methods of effectively teaching spirituality and how to provide spiritual care. Some of those methods included presentations, discussion, journaling, reflection, reviewing current spirituality literature, developing care plans, role playing, case studies, and discussing clinical scenarios (Lovanio & Wallace, 2007; Giske & Cone, 2011). Reflection was

identified as one of the most effective teaching interventions in developing spiritual self-awareness, and was shown to increase nursing students' level of spirituality, knowledge, and understanding of how to provide spiritual care (Giske & Cone, 2011). Strengths of these studies include the consensus on the effective interventions. Weaknesses include the lack of generalizability, and the samples included only nursing students, when this PI's sample included registered nurses. Also, these educational programs were funded by the schools they were implemented in and had a longer time period to implement the classes.

Due to the multicultural nature of the literature review on spiritual perspectives and education, it needs to be taken into consideration that spirituality is defined differently in other countries and the cultural practices of those countries could affect the findings of the research.

Conclusion

A conclusion based on this literature review was that spiritual education improved spiritual perspectives (Cerra & Fitzpatrick, 2008; Cockell & McSherry, 2012) and was critical to providing spiritual care (Edwards et al., 2010; Giske & Cone, 2011). Spiritual education was necessary to provide appropriate spiritual care (Edwards et al., 2010; Wu, Liao & Yeh, 2012; Cockell & McSherry, 2012; Lovanio & Wallace, 2007), although research showed that spiritual education was lacking (Wu, Liao & Yeh, 2012; Phelps et al., 2012). Gaps in this literature review included a lack of research on developing a spirituality educational program for registered nurses in a hospital setting. Most of the studies that described educational interventions were with nursing students designed for a semester long class.

CHAPTER 3: METHODS

The purpose of this Practice Inquiry (PI) was to determine if a spirituality training class for Bone Marrow Transplant nurses (BMT) would increase nurses' spiritual perspectives and their spiritual care of patients. A second purpose was to examine the relationship between nurses' spiritual perspectives and extent of spiritual care at both pre- and post- educational program times.

This study was a secondary analysis of a data set from a pre/post survey of BMT nurses who attended a spiritual education program. Nurses were surveyed using the Spiritual Perspective Scale (SPS) developed by Reed (1986) and a Nurse Spirituality Questionnaire (NSQ) developed by the research team to measure how BMT nurses at a large, inner city hospital perceived spirituality on an individual level. The research team consisted of the principal investigator, the research director for the BMT unit, an oncology Clinical Nurse Specialist, a chaplain, two research consent nurses, a BMT nurse case manager, and four BMT nurses.

This study aimed to answer three research questions:

- 1) Did nurses' spirituality perspectives increase after participation in a spirituality education program?
- 2) Did a spirituality education program increase nurses' spiritual care with patients?
- 3) What was the relationship between the nurses' spiritual perspective and spiritual care at pre-test and post-test?

Description of Original Study

The original study used a descriptive, longitudinal design, and was performed on the BMT unit of a large non-profit inner-city hospital, in Phoenix, from 2008-2010. The study

involved two research populations, bone marrow transplant nurses and bone marrow transplant patients. The study involving only nurses was described here.

Sample

The nurse portion of the study enrolled 49 BMT nurses from one hospital in Phoenix who agreed to participate. Forty-eight completed the pretest, and five withdrew before the spirituality course, leaving 43 BMT nurses who completed the class and the post-test one month after taking the class.

Inclusion criteria for the nurses were that the nurses were employed by the oncology/bone marrow transplant unit at one hospital, and were able to understand and complete the questionnaires. The questionnaires were shown to the participants and they were asked if they would be able to understand and fill them out.

Informed Consent

Institutional Review Board (IRB) approval from the hospital was obtained prior to the initiation of the study. The research assistants or the PI explained to the BMT nurses the purpose of the study and if interested in participating, they were provided a consent form. The consent form explained that participation in the study was voluntary, outlined the objectives of the study, and provided the participants with the contact information of the PI. The participants were asked to sign the consent form after answering all their questions about the research. The PI signed the consent form and a copy was given to the participant. Participants' signature and their verbal consent were considered their voluntary informed consent to participate.

Confidentiality and Protection of Human Subjects

Upon initial participation, participants were asked to fill out a Participant Information Sheet (PIS) with their identifying information. In advance of recruitment, a Participant Identifier

Code (PIC) was filled out on the PIS and the survey packet. A master list of names and codes was maintained by PI and kept in a locked cabinet separate from the data, which was also kept in a locked cabinet. Participant responses for the surveys were only identified through the PIC. The master list and completed surveys were only accessible by the PI. After the completion of the study, the master list and surveys will be shredded. The University of Arizona IRB approved the secondary analysis for this current study.

Spiritual Education Program

The purpose of the spiritual education program was to explore the interface between spiritual care and the practice of nursing. Although spirituality was examined broadly, according to a variety of theologies, the primary historical content was derived from the Judeo-Christian tradition. The class content was divided into sections taught by the research staff. The history of nursing and the incorporation of spiritual care into nursing practice was approached from a Judeo-Christian perspective because when nurses first started being trained, it was through religious entities, mostly Christian based, in France, England, and the United States. The session immediately after that discussed multiple religions, touched on their beliefs and how they practiced their spiritual beliefs. Another session taught the practices of different religions with life and death issues. There was a variety of religions represented by the participants, and there was a wide range of discussion on different religious beliefs and spiritual practices. Feedback from the nurses included that various religions and spiritual practices were well represented. The questionnaires did not survey the participants' religion, so the participation would not be affected or biased by religion.

For the course, the nurses were required to complete assigned reading, answer reflection questions, and complete a spiritual self-assessment to enhance the discussion in the class.

Instructional methods include: classroom discussion, case studies, self-reflection, video, independent reading, and study. The class was taught in session and all the sessions included class discussion. Case studies were used to illustrate spiritual care conversations and techniques. The class began with personal reflection on the nurses' own spirituality and how they felt that affected the spiritual care or lack of it they provided to BMT patients. The class incorporated a historical perspective on spirituality and the healing arts, as well as spiritual approaches to assessment and intervention in relation to the spiritual needs of those experiencing health deficits.

The goals of the class upon completion were to be able to: (a) describe a personal spirituality under girding his or her practice of nursing; (b) understand the historical influence of Pre-Christian and Christian spirituality on health care in general, and nursing in particular; (c) compare and contrast between spiritual care, spiritual need, spiritual distress, spiritual well-being, religion and spirituality; (d) assessment of spiritual problems and/or needs of patients; (e) a list of five interventions that minister to the human spirit; and (f) identifying barriers to providing spiritual care.

The class was offered twice in one month, in six-hour sessions, for 8 to 14 nurses in each class. These classes were offered at three different times of the year in order to obtain participation from all consenting nurses on the BMT unit. The nurses had the option to sign up for the class at a time that fit their schedule. After each set of classes had finished, the following month an optional reflection session was offered to discuss the results of their implementation of spiritual care.

Study Instruments

Demographic Questionnaire

An introduction to the study and a demographic questionnaire was attached to the front of the packet of questionnaires. This questionnaire was used to obtain demographic data about the nurses.

Spiritual Perspective Scale (SPS)

The SPS was developed by Pamela Reed to measure the level of spirituality of participants. The instrument consists of 10 questions that measure participants' spiritual perspectives, and how they incorporate spirituality into their lives. Each item was rated on a scale of 1 to 6, with descriptive responses (Likert scale). However from a pilot study done prior to this study, feedback from the BMT patients indicated that use of the numbers was confusing and that wording alone would decrease the confusion. The SPS was delivered in a questionnaire format. Total scores range from 10 to 60, with the higher score indicating greater spiritual perspective. The SPS has demonstrated strong reliability and validity from over 25 years of research (e.g., Reed, 1986, 1987; Kim et al., 2012). The SPS is scored by calculating the arithmetic mean across all items. Thus, possible scores ranged from 1 to 6, with 6 indicating a high level of spiritual perspective. Two sample items are:

- 1) In talking with your family and friends, how often do you mention spiritual matters?
 1. Not at all
 2. Less than once a year
 3. About once a year
 4. About once a month
 5. About once a week

6. About once a day
- 2) My spiritual views have had an influence upon my life.
 1. Strongly Disagree
 2. Disagree
 3. Disagree more than agree
 4. Agree more than agree
 5. Agree
 6. Strongly Agree

Nurse Spirituality Questionnaire (NSQ)

The NSQ was developed by the research team to assess the extent to which nurses applied spiritually-based care in their practice. The first four items were scored on a response scale of 1 to 6 with descriptive responses. The total score ranged from 4 to 24. The fifth item was a yes or no question measuring the level of desire for spiritual care education. (There were two additional open-ended questions relating specifically to the hospital's services, training, and suggestions for improvements on spiritual care training and delivery. These items were not analyzed for this study's purposes, but will be examined as part of the original study.) The five items that were analyzed are shown below:

1. How often do you contact the spiritual care department for patients?
2. I believe providing spiritual care for patients is part of my job description
3. How often do you conduct a spiritual assessment?
4. I am comfortable developing a spiritual plan of care with my patients.
5. Would you like more education about providing spiritual care?

As with the SPS, the NSQ is scored by calculating the arithmetic mean across all items. Possible scores again may range from 1 to 6, with 6 indicating a high level of spiritual care application.

Procedure

Flyers were posted on the BMT unit introducing the study and providing contact numbers for interested participants. Interested nurses were then contacted on the BMT unit individually by the PI and the study was explained in detail. The PI discussed the purpose of the study and the expectations of participation. The nurses were given the consent form and after reading it, if they wanted to participate, they were consented. If they needed more time to read the consent, the PI returned the next time the nurse was working to consent them. Nurses who agreed to be in the study were given the packet of the SPS and NSQ questionnaires and asked to complete them anonymously at their convenience. They were expected to complete the packet individually and not to share their answers with other nurses. The nurses placed their completed questionnaires in an envelope, which they deposited in a secure mailbox on the unit.

The nurses then participated in the spirituality education program. One month after completing the training, they were provided the same packet of questionnaires to complete anonymously and place in the BMT consent nurses' mailbox. The one month delay was planned so that the nurses would have had opportunity to apply the information from the education in their nursing care.

This *secondary analysis of data* aimed to analyze the pre/post tests of BMT nurses before and after implementing the spiritual education program. IRB approval was obtained prior to data analysis to ensure protection of human participants and their safety.

Data and/or Statistical Analysis Methods

Standard descriptive statistics including means and standard deviations was calculated for the total Spiritual Perspective Scale (SPS) score and the NSQ for nurses pre- and post- surveys. Also, an item analysis with means and standard deviations was reported for each item on the surveys, in addition to the total instrument. A Cronbach's alpha test was reported for internal reliability on the SPS and the NSQ. For Research Questions 1 and 2, a Wilcoxon Signed Ranks test was used to determine within-group differences in nurses pre- and post-survey, due to some of the data not being normally distributed. All analysis assumed a significant change if the p-value is <0.05 . For Research Question 3, a bi-variate correlational analysis was done. In addition, correlations between demographic data and scores on the instruments were analyzed for potentially significant relationships at pre- and post- survey.

CHAPTER 4: RESULTS

Statistical analysis using SPSS Version 21.0 was completed on the nurses' SPS and NSQ surveys before and after attending the spirituality education program. Significant findings and correlations were reported, descriptive statistics on the demographics were discussed, and the internal reliability of the tools was evaluated.

Description of Sample

There were 43 nurses, 3 men and 40 women who participated in the study. The mean age of the participants was 39.3 years (SD=10.91, range=26 to 62 years). The mean number of years worked as a Registered Nurse (RN) was 12.9 years (SD=10.51, range=1 to 39 years). Similarly, the mean number of years worked as an Oncology Nurse (ON) was 10.6 years (SD=9.34, range=1 to 37 years). In terms of previous education, 55.8% of the nurses reported that their highest degree obtained was a bachelor's degree, followed by 34.9% with an associate's degree, 7.0% with a master's degree and 2.3% with a diploma. There were no nurses in this study who had a Doctorate of Philosophy (PhD) degree. There were 25 nurses that held a national certificate, specifically the Oncology Nursing Certification, and 18 nurses that did not. Twenty-four nurses reported attending the End of Life Nursing Education Consortium (ELNEC), while 19 did not. The ELNCEC was a nationally provided educational class that provided nurses with education on end of life care (AACN, 2013).

Reliability of Instruments

Reliability of both the SPS and NSQ in this study was measured by Cronbach's alpha as a measure of internal consistency. The SPS had a very high reliability with an alpha coefficient of 0.95. No inter-item correlations fell below 0.48 with little redundancy in the inter-item

correlations; the average inter-correlations ranged from 0.49 to 0.77 across the groups. There was no evidence that deleting any item in the SPS would increase the alpha value.

The NSQ had a near-acceptable reliability with an alpha coefficient of 0.65 (where the criterion for a new instrument is typically .70 (Zeller & Carmines, 1980). Average inter-correlations ranged from 0.02 to 0.53 across the groups. The lack of consistency with the NSQ may be explained by the small number of questions (4) and the items covering a more diverse theme in the evaluation. It was maintained that the NSQ was still a valid, reliable instrument for the purposes of this study.

Research Question 1: Did nurses' spiritual perspectives increase after participation in a spirituality education program?

The SPS was administered before and after the education class. It was found that the mean score pre-education (pre-survey) was 4.6 (SD=1.10), while the mean score post-education (post-survey) was 4.7 (SD=1.15).

The NSQ was also administered before and after the education class. It was found that the mean score pre-survey was 3.7 (SD=0.94), while the mean score post-survey was 4.4 (SD=0.84). Analysis of the Yes/No Question on the NSQ showed that 93.0% said 'Yes' to wanting more education about providing spiritual care pre-survey, while 48.8% said 'Yes' post-survey.

Research Question 2: Did a spirituality education program increase nurses' spiritual care with patients?

Within group differences on the pre- and post- survey data were tested to address this question. Because there was some concern about normality of data, especially with the SPS, both a paired t-test and a Wilcoxon signed-rank tests were conducted to determine within-group differences in pre- and post- survey for both the SPS and NSQ. The tests were run for both the

average scores on each instrument, as well as individual questions. It was found that the significance level of the SPS with the paired t-test was $t(42)=-1.64$, $p=0.11$, while the significance of the Wilcoxon signed-rank test $z=-1.93$, $p=0.05$. However, the significance levels of both tests for the NSQ were exactly the same $p=0.00$. This indicates, as previously mentioned, that there is some degree of non-normality or skew with the SPS. Thus, only non-parametric tests were used for consistency of results for both the SPS and NSQ.

It was found that for the average score on the SPS instrument, there was a small increase in the total score from pre- (median=4.7) to post- survey (median=4.9), $z=-1.92$, $p=0.05$, $r=-0.29$ (r is the effect size; this value represents a small to medium effect size). It was found that for the average score on the NSQ instrument, spirituality was significantly higher pre- (median=3.8) to post- survey (median=4.4), $z=-4.77$, $p < 0.05$, $r=-0.73$ (this value represents a very high effect size).

Tables 1 and 2 give a more detailed analysis of individual questions pre- and post- survey for the SPS and NSQ, respectively. Note that for the SPS, only item 2 shows a significant increase in spirituality pre- and post- survey ($p < 0.05$, $r=-0.34$). The NSQ within item analysis shows that ALL questions show significant increase in spirituality pre- and post- survey (all $p < 0.05$ and all $r < 0.3$).

TABLE 1. *Medians, Significance Values (z and p) and Effect Sizes (r) of SPS Items, Pre- and Post- Survey.*

SPS Items	Pre/Post Median	z	p	r
1	5.0/5.0	-0.71	0.49	-0.11
2	4.0/5.0	-2.21	0.03	-0.34
3	4.0/4.0	-1.49	0.14	-0.23
4	6.0/6.0	-0.96	0.34	-0.15
5	5.0/5.0	-0.82	0.42	-0.13
6	5.0/5.0	-0.98	0.33	-0.15
7	5.0/5.0	-0.65	0.52	-0.10
8	5.0/5.0	-0.32	0.75	-0.05
9	5.0/5.0	-0.51	0.61	-0.08
10	5.0/5.0	-1.05	0.29	-0.16

TABLE 2. *Medians, Significance Values (z and p) and Effect Sizes (r) of NSQ Items, Pre- and Post- Survey.*

NSQ Items	Pre/Post Median	z	p	r
1	4.0/4.0	-2.44	0.01	-0.37
2	5.0/5.0	-3.40	0.00	-0.52
3	4.0/4.0	-3.85	0.00	-0.59
4	4.0/4.0	-3.43	0.00	-0.52

McNemar's test was conducted on the single yes/no item in the NSQ to determine within-group differences in pre- and post- survey for this specific question. Results showed that 24 participants did not change their answer (either 'yes/yes' or 'no/no') and that 19 changed from 'yes' in pre-survey to 'no' in post-survey. The test showed that there is a significant change in response pre- and post- survey ($p < 0.05$).

Research Question 3: What is the relationship between the nurses' spiritual perspective and spiritual care at pre-test and post-test?

Correlational analyses were done to examine the relationship between the nurses' spiritual perspective and spiritual care at pre-test and post-test. In addition, in order to determine correlations between the demographic data and the scores on the instruments, a Spearman's rho analysis was conducted. The level of significance (for p) was set at .05. The correlation coefficients (r) are reported for each significant correlation.

There was no significance correlation between spiritual perspective and spiritual care at pre-test ($r=.20$, $p=.20$) and at post-test ($r=.00$, $p=.99$). The total SPS score pre-survey was significantly related to the total SPS score post-survey ($p=.00$, $r=.86$). The total NSQ score pre-survey was significantly related to the total NSQ score post-survey ($p=.00$, $r=.61$).

The SPS pre-survey score also related significantly with the following demographic variables: age ($r=.32$, $p=.04$); gender (female) ($p=.01$, $r=.38$); years as an RN ($r=.38$, $p=.011$).

The SPS post-survey score also related significantly to age ($r=.35$, $p=.023$); gender ($r=.35$, $p=.020$); and years as an RN ($r=.37$, $p=.015$).

In addition, it was found that age was significantly related to years as a RN ($p=.00$, $r=.81$), years as an ON ($p=.00$, $r=.70$), national certification ($p=.00$, $r=-.47$), Gender was significantly related to years as a RN ($p=.02$, $r=.36$), years as an ON ($p=.03$, $r=.33$). The years as a RN were significantly related to years as an ON ($p=.00$, $r=.84$), and national certification ($p=.00$, $r=-.70$). The years as an ON were significantly related to national certification ($p=.00$, $r=-.77$). The highest overall degree attained was significantly related to pre-survey NSQ item 3 and post-survey NSQ item 4.

CHAPTER 5: DISCUSSION

The results of this study provided support for educating nurses on how to provide spiritual care and addressing their personal spiritual perspectives. The hypothesis that nurses' spiritual perspectives increased after participation in a spirituality education program was moderately supported. The mean score of the SPS before the spirituality education class was 4.6 (SD=1.10), while the mean score post-education (post-survey) was 4.7 (SD=1.15). The Wilcoxon signed-rank test was $p=0.05$ for the SPS tool, which indicated that the pre- and post-education groups were not significantly different, although there was a small increase. The scores were distributed normally, similar in the pre- and post- survey, but were positively skewed. These results showed that a BMT nurse has a slightly higher scoring of personal spiritual perspectives than average before any intervention, which could be in part, due to dealing with life and death issues on a regular basis with the BMT population.

Overall, the results suggest that these particular nurses' spiritual perspectives are relevant in their patient care, and may be influenced by interventions as well as by encounters with patients. Also taken into consideration is that the small sample size reduced the ability of the SPS tool to find significance. In addition to that, the SPS measures perspectives and behaviors that are more personal, more enduring and less amenable to a fairly brief training program. The lack of variability in the SPS scores also reduced the possibility of a significant relationship between spiritual perspective and other variables.

Item 2 on the SPS which asked how often did the participant share with others the problems and joys of living according to their spiritual beliefs, showed a significant increase of moderate magnitude in spirituality pre- and post- survey ($p < 0.05$, $r=-0.34$). This result could indicate that a spirituality education program could improve communication about spiritual

issues, and incorporation of spirituality into life issues. These findings lend support to Chism and Magnan's (2009) findings that a higher level of personal spiritual perspectives leads to a more positive attitude toward applying spiritual care. Thus, spirituality educational programs should include a focus on promoting self-reflection and teaching spiritual care application. The slight increase of scores from pre- to post- survey with the SPS suggested that the spiritual education program provided a slight enhancement of personal spiritual perspectives and assisted the participants to reflect and further develop their values and beliefs on spirituality.

These findings also lent support to the first and second assumptions in the theoretical framework that a spirituality education program would provide opportunity for the nurse to engage in self-reflection on spiritual issues, and secondarily, the nurse would be able to identify her/his values, beliefs, and attitudes toward spirituality. This was congruent with previous publications on using personal reflection and development of beliefs and values to enhance spiritual perspectives (Puchalski & Guenther, 2012).

The hypothesis that a spiritual education program would increase the frequency of spiritual care that nurses provided to patients was strongly supported. The NSQ mean score pre-survey was 3.7 (SD=0.94), while the mean score post-survey was 4.4 (SD=0.84). The Wilcoxon signed-rank test was $p=0.00$ for the NSQ, which indicates that the pre- and post- education groups were significantly different. These findings suggest that participating in a spiritual education program would provide the nurse with information that would enable one to conduct spiritual assessments, become more comfortable developing an individualized patient spiritual care plan, and accept that providing spiritual care is part of a nurse's job description. These findings supported Phelps et al.'s (2012) research that 85% of nurses think that routine care would positively impact patients, but due to lack of information, education, and comfort level,

only 25% of patient report having received spiritual care. Item 5 on the NSQ showed that 93.0% of nurses wanted more education about providing spiritual care pre-survey, while 48.8% still wanted more education post-survey. *McNemar's test* showed that there was a significant change in response pre- and post- survey ($p < 0.05$). This showed that the spiritual education program satisfied about half of the nurses' need for spiritual education, in order to provide more frequent spiritual care to patients. The other half of the nurses stated that they still wanted more education about providing spiritual care post- survey, which showed the need to provide a continuum of spiritual education programs in nursing program curriculums and in the workplace.

One of the reasons for the significant difference pre- and post- survey could be that the NSQ lists very specific patient-oriented behaviors that were more easily influenced by the training than the SPS tool. These findings support the third assumption of the theoretical framework that promoting spiritual self awareness would improve the delivery of spiritual care through building confidence and developing a sense of ownership for providing holistic care. This also supported previous research from Chung et al. (2006) and Cerra and Fitzpatrick (2008) suggesting that enhancing spiritual perspectives would improve the frequency of nurse provided spiritual interventions.

The hypothesis that there was a relationship between the nurses' spiritual perspectives and spiritual care at pre- and post- survey times was not supported. There was no significant correlation between spiritual perspective and spiritual care at pre- and post-survey. However the total SPS score pre-survey was significantly related to the total SPS score post-survey ($p=0.00$, $r=.86$) and the total NSQ score pre-survey was significantly related to the total NSQ score post-survey ($p=0.00$, $r=.61$). This could be attributed to the already enhanced spiritual perspectives of the nurses shown in the SPS pre-survey, or it could be suggested that the level of spiritual

perspectives does not necessarily affect the frequency of spiritual care application or level of comfort when providing spiritual care. Continued research is needed in this area to identify existing relationships between spiritual perspectives and the frequency and level of comfort when providing spiritual care.

The SPS pre- and post- surveys were moderately but significantly correlated to the nurses' age, gender and years as a RN. That SPS scores were higher among women is consistent with many previous findings in research on spirituality, and in fact, supported the validity of the measures. The nurses were mostly female, between the ages of 26-62 and had worked as a nurse from between 1 to 39 years, mostly in the oncology setting. These findings tentatively suggest that the higher the age and the more years a nurse had practiced, the higher was the level of spiritual perspectives as a result of greater maturity, more time and training in self-reflection on spiritual issues, and more exposure to patient and family encounters about life and death issues. Age was significantly related to how many years the nurse had worked, specifically as an oncology nurse, and had attained national certification. This relationship suggests that the longer a nurse is in practice, the more likely the nurse is to seek expertise in a specialty field through certification.

The highest overall educational degree was significantly correlated with item 3 on the NSQ pre-survey, which asks how often the nurse conducts a spiritual assessment. This finding suggests that nurses with a higher education have had more education on spiritual care incorporated into their nursing curriculum and are applying the learned content from formal education. This finding also suggests that the higher educated nurse conducts spiritual assessments more frequently than nurses with a lower education. The highest overall degree was significantly correlated with item 4 on the NSQ post-survey, which assesses comfort level of the

nurse in developing a spiritual plan of care with patients. This finding could suggest that higher education assists the nurse in accepting a new approach to practice, and finding ease with incorporating it into current practice.

The above findings partially support the fourth assumption of the theoretical framework that if nurses are provided opportunity for spiritual self-reflection and education on how to provide spiritual care to patients, the nurse would feel comfortable and be willing to apply this knowledge when delivering patient care. Although strong conclusions cannot be drawn on spiritual perspectives and the spiritual education program, significant correlations were found between the spiritual education program, increased frequency of application of spiritual care, and comfort and willingness to apply spiritual interventions. These findings support previous research from Cerra and Fitzpatrick (2008) that identified a link between spiritual education and application of spiritual care interventions.

This discussion of findings is done in recognition of certain limitations of this study. These include the sample size and composition. The relatively small sample size limits statistical power in finding significant relationships where the correlations show trends in the expected direction. Another limitation was the use of a sample that was relatively homogenous in terms of being comprised of mostly Caucasian female from one BMT unit in one healthcare facility. The sample limitations overall limit the generalizability of the results to other nurse groups.

In addition, the NSQ was an investigator developed instrument. While the reliability was fairly adequate, the coefficient could have been higher, to reach .70. Another limitation was that only one spirituality training class was provided, and with limited follow-up in regards to questions or difficulties applying the education. These limitations notwithstanding, the findings are interpreted cautiously yet with the view that they support continued research in this area.

Implications for practice would include providing a spiritual education program for nurses to attend and that continuing education in enhancing spiritual perspectives and spiritual care is available for nurses to improve their practice as holistic nursing professionals. These situations could require more frequent self-evaluation and developing a level of comfort when discussing spiritual issues.

As spiritual education is more frequently incorporated into nursing curriculums, future research recommendations would include sampling nursing graduates that have had spiritual education and surveying them on their spiritual perspectives. Additionally, future research is needed on patients' perspectives about spiritual care as provided by nurses who have been trained in providing spiritual care. It is important to obtain data from both the nurse and patient perspectives in initiating nursing interventions. Future research should include a larger sample size from various healthcare settings, a more generalized population of nursing specialties, more diverse ethnic backgrounds, and include a more equal distribution of gender populations. Research should also focus on identifying possible relationships between level of education and application of spiritual care.

Understanding one's own spirituality and involving of one's self into spiritual care may facilitate effective spiritual care for patients to be provided (Chung, Wong & Chan, 2007; Cerra & Fitzpatrick; Edwards et al., 2010; Giske & Cone; Cockell & McSherry, 2012; Van Leeuwen & Cusvelier, 2004). Reflection was identified as one of the most effective interventions in developing spiritual perspectives, which was incorporated into this PI's spirituality educational program.

The intervention in this PI was the only one found of this nature that included a six-hour, comprehensive spirituality education program for hospital employed nurses, with pre- and post-

tests measuring effectiveness of education on spiritual perspectives and comfort level of nurses when applying spiritual care. Regardless of the limitations addressed above, the intervention in this PI was unique and can add to the existing knowledge of spirituality research.

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