Special Section: Report from a Conference on the State of the Science of Spirituality and Palliative Care Research

State of the Science of Spirituality and Palliative Care Research Part II: Screening, Assessment, and Interventions

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Abstract

The State of the Science in Spirituality and Palliative Care was convened to address the current landscape of research at the intersection of spirituality and palliative care and to identify critical next steps to advance this field of inquiry. Part II of the SOS-SPC report addresses the state of extant research and identifies critical research priorities pertaining to the following questions: 1) How do we assess spirituality? 2) How do we intervene on spirituality in palliative care? And 3) How do we train health professionals to address spirituality in palliative care? Findings from this report point to the need for screening and assessment tools that are rigorously developed, clinically relevant, and adapted to a diversity of clinical and cultural settings. Chaplaincy research is needed to form professional spiritual care provision in a variety of settings, and outcomes assessed to ascertain impact on key patient, family, and clinical staff outcomes. Intervention research requires rigorous conceptualization and assessments. Intervention development must be attentive to clinical feasibility, incorporate perspectives and needs of patients, families, and clinicians, and be targeted to diverse populations with spiritual needs. Finally, spiritual care competencies for various clinical care team members should be refined. Reflecting those competencies, training curricula and evaluation tools should be developed, and the impact of education on patient, family, and clinician outcomes should be systematically assessed. J Pain Symptom Manage 2017;54:441–453. *Published by Elsevier Inc. on behalf of American Academy of Hospice and Palliative Medicine.*

Key Words

Spirituality, outcomes, assessment, interventions, design

Introduction

As discussed in Part I of the State of the Science of Spirituality in Palliative Care (SOS-SPC), there are notable relationships between spiritual domains and palliative care outcomes among patients and family members. The recommendations outlined in the summary in Part I, highlight the critical methodological challenges together with key gaps in outcomes research. By using definitional and methodological rigor, the field of palliative care can address these

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Table 1
Levels of Clinical Inquiry About Spirituality and Religion

Type of Clinical Inquiry	Clinical Context	Length	Mode	Clinician
Spiritual screening	Initial contact, ongoing reassessment	Brief	Open-ended questions or items with scaled response, goal is to identify patients in need of spiritual care referral	Any clinical care provider
Spiritual history-taking	Initial contact	Brief	Open-ended questions	Clinical medical care provider (e.g., physician, nurse, or chaplain)
Spiritual assessment	Initial contact, ongoing reassessment	Extensive	Conceptual framework guides interview and development of spiritual care plan	Board-certified chaplain or spiritual care professional with equivalent training

gaps and further the understanding of how spirituality, in its multidimensional complexity, relates to palliative care outcomes.

Knowledge regarding how spiritual domains influence outcomes, even if elevated in rigor and depth, is fruitless without research that informs application to the care of seriously ill patients and families. To meaningfully inform how clinicians, clinical teams, and institutions interface with spirituality in the care of patients and families requires addressing key practical questions: 1) How do we assess spirituality? 2) How do we intervene on spirituality? And 3) how do we train healthcare professionals to address spirituality in palliative care. Hence Part II of SOS-SPC addresses the current state of the science, noting key gaps, and makes critical next step recommendations regarding these three domains of inquiry.

How Do We Assess Spirituality?

Spiritual Screening, History-Taking, and Assessment Within Palliative Care. A recent survey of 807 palliative care providers ranked spiritual screening tools as the number one priority for spiritual care research.[1] When reviewing the state of the science, tools can be grouped into three categories of inquiry: 1) *spiritual screening*, 2) *spiritual history taking*, and 3) *spiritual assessment*.[2] Table 1 summarizes each level of spiritual inquiry in terms of context, length, mode of delivery, and the clinician involved.

Spiritual Screening. Spiritual screening evaluates the presence or absence of spiritual needs and/or distress with the goal of identifying those in need of further spiritual assessment and care. Table 2 shows the published models designed specifically for spiritual screening. Given that spiritual screening fits conceptually within the larger umbrella of psychosocial screening, a number of instruments developed for general psychosocial screening include one or more spiritual items (Table 2).[3–9] Likewise, many needs assessment tools contain items assessing spirituality, with tools developed and used largely within cancer patient populations as described in a review by Carlson et al.[10]

There is some evidence to inform the utilization of screening tools in palliative populations. For example, the Rush Spiritual Screening Protocol has been tested among 173 medical rehabilitation patients, among whom 7% tested positive for possible religious or spiritual struggle; 92% were confirmed by chaplain assessment.[11] Steinhauser's "Are you at peace?" single-item assessment tool has been tested among 248 patients with advanced illnesses and found to have significant, positive associations with measures of emotional and spiritual well-being.[12] Mako's "Do you have spiritual pain?" screening tool was tested among 57 advanced cancer patients and found to be significantly related to patient-reported depression.[13] This tool has also been tested among patients ($n = 91$) and family caregivers ($n = 43$) seen at a palliative care outpatient clinic.[14] Among patients, 44% reported spiritual pain, which was associated with lower spiritual well-being. Among caregivers, 58% reported spiritual pain, which was associated with greater anxiety and depression, and worse quality of life (QOL). The Spiritual Injury Scale was examined in 96 medical rehabilitation patients, with higher scores positively associated with depression and negatively associated with QOL on admission and at four month follow-up.[15] Although these tools show promise as screening tools, key gaps include the absence of data providing guidance regarding optimal spiritual screening methods (e.g., content, timing, frequency), and comparison of how screening methods might differ for different settings, trajectories of illness, and religious or cultural contexts.

Spiritual History-Taking. Spiritual history-taking uses a broad set of questions to capture a patient's spiritual characteristics, resources, and needs. It is typically conducted within an initial, comprehensive evaluation by a clinician. Spiritual history taking is based on expert-derived models. The primary models for spiritual history-taking and their descriptions are shown in Table 2, and include Puchalski and Romer's FICA model,[16] Maugans'[17] SPIRIT model, Anandarajah and Hight's[18] HOPE model, and Frick et al.'s[19] SPIR model. The FICA model has undergone testing, with

Table 2
Spiritual History, Screening, and Assessment Tools

Tools by Level of Inquiry	Domains of Assessment
Dedicated spiritual screening tools	
Rush Religious/Spiritual Screening Protocol[11]	- Importance of religion/spirituality in coping with illness - Strength/comfort from religion/spirituality - Desire for chaplaincy visit
"Are you at peace?"[93]	- Peacefulness
"Do you have spiritual pain?"[13]	- Spiritual pain
Spiritual Injury Scale[94–97]	- Guilt - Anger or resentment - Sadness/grief - Lack of meaning - Feeling God/life has treated one unfairly - Religious doubt - Fear of death
Spiritual history-taking tools	
FICA[16]	- Patient faith/spirituality - Importance of spirituality - Patient spiritual community - Addressing spiritual needs/referral to chaplaincy
SPIRIT[17]	- Spiritual belief system - Personal spirituality - Integration with spiritual community - Ritualized practices and restrictions - Implications for medical care - Terminal events planning
HOPE[18]	- Sources of hope, strength, meaning, peace, love, connection - Role of organized religion for the patient - Personal spirituality and practices - Effects on medical care/end-of-life decisions
SPIR[19]	- Patient spirituality - Place of spirituality in one's life and illness - Integration in spiritual community - Role of care provider in meeting spiritual needs
Spiritual screening embedding in psychosocial screening tools	
Canadian Problem Checklist[3]	- Meaning/purpose in life - Faith
The James Supportive Care Screening[4]	- Concerns about relationship with higher being - Concerns about spiritual practices - Concerns about meaning/purpose in life [intrapersonal]
Support Screen[5]	- Assessment of spiritual or religious concerns
Electronic Self-Report Assessment — Cancer (ESRA-C)[6]	- Uses modified Rush Religious/Spiritual Screening Protocol
Distress Inventory for Cancer (version 2)[7]	- Religious activities - Faith and coping with illness - Miracles
Advanced Cancer Patients' Distress Scale[8]	- Unresolved religious/spiritual questions - Afterlife
Distress Thermometer[9]	- Spiritual/religious concerns (possible item to select in a problem list)
Spiritual assessment tools	
Pruyser Spiritual Assessment Model[98]	- Awareness of the Holy - Providence - Faith - Grace - Gratefulness - Repentance - Communion - Sense of Vocation
7×7 Spiritual Assessment Model[99]	- Holistic assessment - Multidimensional R/S assessment • beliefs and meaning • vocation and consequences • experiences and emotion • doubt • rituals and practices • community • authority and guidance
Discipline for Pastoral Care Giving[100]	- Concept of the holy - Meaning - Hope - Community

(*Continued*)

Table 2
Continued

Tools by Level of Inquiry	Domains of Assessment
MD Anderson Spiritual Assessment Model[22]	- Despair vs. hopeful - Wholeness vs. brokenness - Courage vs. anxiety/dread - Connected vs. alienated - Meaningless vs. meaningful - Grace/forgiveness vs. guilt - Empowered vs. helpless
Spiritual AIM[23]	- Meaning and direction, - Self-worth and belonging - Reconciliation/to love and be loved
Spiritual Distress Assessment Model[24,26]	- Need for life balance - Need for connection - Need for values acknowledgment - Need to maintain control - Need to maintain identity

findings supporting its feasibility and concurrent validity with quantitative measures of spirituality,[20] although in a single, small sample of U.S. cancer patients. There is limited research on the application of spiritual history-taking models in palliative care populations,[19,20] and further research is required to evaluate current and develop and test new spiritual history-taking tools among diverse palliative patient populations.

Spiritual Assessment. Spiritual assessment is an in-depth, on-going process of evaluating a patient's spiritual needs and resources completed by chaplains or other individuals possessing advanced training in spiritual care.[21] Traditionally, chaplaincy and other professional spiritual care providers have relied on narrative-based and less quantifiable assessment approaches. Realizing its limitations, the field is encouraging efforts to standardize assessments that systematically evaluate spiritual care, allow chaplains to more fully communicate patients and family needs, demonstrate intervention efficacy, and recommend supportive strategies to the health care team. The MD Anderson Spiritual Assessment Model[22] and Spiritual Assessment and Intervention Model[23] are both framed around standardized qualitative assessments of domains of spiritual need. However, neither has undergone validation or reliability testing. Within palliative care, the availability of quantifiable, valid, reliable, and relevant assessment tools is weak. Published models, including core domains of assessments, are shown in Table 2.

Two research teams have led efforts to develop and validate two quantifiable spiritual assessment tools. First, the Spiritual Distress Assessment Tool (SDAT) was developed to assess the experience of older adults, using narrative interviews followed by the chaplain quantifying patient responses in domains of spiritual need.[24,25] The SDAT has criterion validity with the FACIT-Sp (a validated research tool for meaning, faith and purpose), and with the one-item "Are you at peace?" This measure also has concurrent validity with the Geriatric Depression Scale and clinician-reported need for family discharge meetings and predictive validity in terms of length of stay and discharge to a nursing home.[26] The Grupo de Espiritualidad de la SECPAL (GED) questionnaire is a tool developed for the palliative care setting that includes questions quantitatively evaluating spiritual needs along core domains, together with open-ended questions qualitatively assessing concerns and supports.[27] Factor analysis of the quantitative component demonstrated a three-factor structure model of spiritual needs: intrapersonal, interpersonal, and transpersonal (e.g., divine). Both SDAT and the GES have limitations. For example, the SDAT addresses concerns about illness, but not the existential needs related to legacy, sense of burden, or concerns about dying many patients face when dealing with life-limiting illness. The GES is not fully quantifiable. Both tools make significant advances by quantifying spiritual assessment, having established psychometric properties, and using language that is inclusive and actionable.

Research Priorities in Spiritual Screening, History-Taking, and Assessment. Palliative care spiritual history, screening, and assessment tools must be applicable to life-limiting illness; be empirically derived; be quantifiable, valid, and reliable; be inclusive; yield clinically relevant information; be feasible and acceptable to patients and caregivers; and inform an interdisciplinary spiritual care plan. To meet these goals, key research gaps must be addressed. First, many tools have been developed primarily for research purposes and further study is needed to evaluate their usefulness in clinical settings. Second, the limitations of published models for spiritual screening, history-taking, and assessment suggest both the need for rigorous testing of existing instruments as well as the development of new, more

comprehensive tools. Finally, there is a need for greater conceptual clarity regarding dimensions used for spiritual inquiry and their relationship with assessments of emotional and psychological well-being.

How Do We Intervene in Spirituality?

The SOS-SPC provides an overview of interventions to address patient and family spiritual well-being in palliative care. These include care provided by chaplains as well as spiritual care interventions conducted by interdisciplinary team members. Finally, we address how to intervene in professional education to advance spiritual care for patients and families facing serious illness.

Chaplaincy Care. Care provided by spiritual care professionals (e.g., chaplains and other professionally trained providers of spiritual care, heretofore termed "chaplains") in medical settings includes spiritual care to patients and their families, hospital administration, and staff. Chaplains use many interventions, such as empathic listening, religious rituals, and prayer. Chaplaincy research in palliative care includes studies informing the content of chaplains' spiritual care; chaplains' roles, including requisite training and skill sets within palliative care; and chaplaincy's impact on patient, family, and medical staff outcomes.

The current landscape of chaplaincy research has been well-outlined by important reviews of the chaplaincy literature.[28–30] The reviews largely conclude that there is insufficient evidence to guide chaplaincy practice, but four important themes are emerging from research on chaplaincy care in the palliative care setting.

Theme 1. Patient and/or family needs for chaplaincy care in serious illness. Related studies show: 1) religion and spirituality are important to large majorities of seriously-ill patients;[31,32] 2) religious and/or spiritual coping with illness is common among patients and their families;[33–40] 3) spiritual needs and spiritual struggles are frequent among those facing illness;[32,41,42] 4) attention to spiritual needs in palliative care settings is often inadequate;[31,43] and 5) large majorities of seriously-ill patients desire spiritual care to be included in their medical care.[44–46]

Theme 2. The distribution and function of chaplains in the hospital setting. Limited data inform this theme, but focus on three concerns: 1) *The distribution of chaplaincy services.* For example, one study of hospital chaplains found that only 31% of small hospitals (25–100 bed) have chaplaincy services compared with 94% of large (>400 bed) hospitals,[47] 2) *Chaplains roles in hospitals.* For example, a survey of hospital administrators indicated that they view chaplains as playing key roles within hospitals, particularly in end-of-life (EOL) care and in providing emotional support to patients and families,[48] 3) *Usage of chaplaincy in hospitals, including characteristics of referrals.* One study of chaplaincy referrals[49] found that nurses referred patients to chaplains far more often than other staff, and did so for primarily for patient emotional issues. Another study indicated that patients and families most often request a chaplain for spiritual or religious needs, whereas medical staff were most likely to make referrals for patient emotional needs or EOL issues.[50]

Theme 3. What chaplains do. This research body includes the aforementioned data informing spiritual screening and assessment. Other data include observational studies examining chaplaincy interventions. One study found that the most frequent chaplaincy interventions are prayers, blessing, faith affirmation, empathic listening, life review, and emotional support.[51] Data also indicate that chaplains frequently provide care for patients' families, with 29%–40% of chaplaincy referrals being for family needs.[52,53]

Theme 4. Outcomes associated with chaplaincy care. A small number of studies suggest that chaplaincy care is associated with greater patient and family satisfaction with care during serious illness.[54,55] For example, a study of 275 family members of patients who died in the intensive care unit found that spiritual care provision by chaplains was associated with greater family satisfaction with care.[54]

Research Priorities in Chaplaincy and Palliative Care. Chaplaincy research is in its infancy, with limited data suggesting: needs for chaplaincy care are frequent in palliative settings; chaplain resources vary across and are often limited in hospital settings; chaplains play key roles in hospitals in providing EOL support to patients and families; they perform a diversity of interventions to patients and families; needs for chaplaincy care are primarily assessed by nursing; and chaplaincy care is associated with greater patient and/or family care satisfaction. However, most studies have used methods that are descriptive or cross-sectional in design, have used inadequate measures (e.g., chaplain self- report), and were mostly performed in single-site, acute care hospitals in the U.S. Research about chaplaincy care within palliative care settings is particularly lacking. Studies are needed among patients, families, and palliative care staff that identify 1) key resources and needs for spiritual care, 2) critical content of chaplaincy spiritual care in serious illness, and 3) how specific chaplaincy care influences outcomes. Such research is required across a variety of cultural and disease settings.

Table 3
Spiritual Care Interventions in Palliative Care Populations

Spiritual Care Intervention	Description of Interventions	Examples
Psychotherapeutic interventions	Psychotherapeutic interventions addressing domain of meaning, based on Frankl's existential logotherapy[56]	• Brietbart et al.'s[57,58,61] meaning-based psychotherapy • Kang et al.'s[101] Logotherapy • Lo et al.'s[60] Managing Cancer and Living Meaningfully
	Spiritually/religiously-focused psychotherapeutic interventions	• Cole and Pargament's[102] spiritually focused psychotherapeutic intervention • Koenig et al.'s[62] religious cognitive behavioral therapy
Life review interventions	Psycho-spiritual interventions involving integrating life experiences to preserve and enhance dignity	• Chochinov et al.'s[63–68] Dignity Therapy or interventions based Dignity Therapy • Steinhauser et al.'s[66] Outlook Life Review Intervention
Multidisciplinary palliative care interventions	Palliative care interventions incorporating spiritual care as a key domain of a palliative care intervention model	• Rabow et al.'s[71] Multidisciplinary Palliative Care Intervention • Brumley et al.'s[72] Interdisciplinary Home-Based Palliative Care Intervention • Rummans et al.'s[73] Structured Multidisciplinary Intervention for Advanced Cancer Patients • Ferrell et al.'s[76] Interdisciplinary Palliative Care for Patients with Lung Cancer • Sun et al.'s[77,78] Interdisciplinary Palliative Care for Family Caregivers in Lung Cancer
Spiritual care interventions	Interventions specifically targeting patient spiritual well-begin and/or needs	• Kristeller et al.'s[79] Oncologist-Assisted Spirituality Intervention Study
Mind-body interventions	Mind-body interventions such as meditation, massage, and healing arts	• Williams et al.'s[80] Randomized Controlled Trial of Meditation and Massage • Downey et al.'s[81] Efficacy Trial of Guided Meditation and Massage • Garland et al.'s[82] Comparison of Mindfulness-based Stress Reduction and Healing Arts Program in Cancer Outpatients • Cole et al.'s[83] Randomized Trial of Spiritually Focused Meditation in Metastatic Melanoma

Spiritual Care Interventions. Spiritual care interventions are models of care developed to address spiritual QOL and other palliative care outcomes. They include psychotherapeutic, life review, multidisciplinary, and mind body interventions (Table 3).

Psychotherapeutic Interventions. Most spiritual intervention studies investigate the efficacy of psychotherapeutic interventions to address spiritual concerns, such as meaning or forgiveness. Many interventions focus on meaning, including interventions based on Viktor Frankl's existential logotherapy[56] such as Brietbart's[57] meaning-based psychotherapy. Studies testing these interventions have, in general, demonstrated positive associations on various outcomes, including patient QOL and spiritual well-being.[58–61] In a pilot randomized trial of Breitbart's manualized, semi-structured, eight-session psychotherapeutic intervention among 120 advanced cancer patients, improvements in spiritual well-being, QOL, symptom burden, and symptom-related distress were seen.[61] A prospective study of the Managing Cancer and Living Meaningfully intervention—a three to eight session manualized psychotherapy intervention—demonstrated improvements in spiritual well-being, depression, and anxiety at three and six months compared with baseline.[60]

A pilot randomized trial of Koenig's religious cognitive behavioral therapy versus cognitive behavioral therapy (CBT) was implemented in 132 patients with major depression and chronic medical illness and showed no difference between the two groups, although there was a suggestion that among religious patients, religious cognitive behavioral therapy was more effective than standard CBT.[62]

Life Review Interventions. Life review is a psychospiritual intervention involving a process of recalling, evaluating, and integrating life experiences to preserve and enhance personhood. These typically result in a generativity document to enhance a personal sense of legacy in the face of terminal disease. Models for life review include Chochinov's Dignity Therapy or interventions based on the Dignity Therapy model which address psychosocial, existential, and spiritual issues at the EOL through the construct of dignity.[63–68] A recent

systematic review of Dignity Therapy[69] showed that patients and family members consistently report benefits to the EOL experience. However, dignity therapy's effects on emotional and physical symptoms show mixed results within general palliative care populations. Among patients with higher rates of baseline distress, it has also shown to mitigate depression, desire for hastened death, and demoralization. Steinhauser et al.[66] developed Outlook, a manualized, three-session, life review intervention that additionally addresses legacy and negative life experiences such regrets, with the aim of facilitating reconciliation. Life review interventions have demonstrated positive associations with patient and family outcomes, including patient-reported QOL, dignity, spiritual well-being, and preparation.

Multidisciplinary Team Interventions. A number of studies, including three of the five RCTs identified in a recent Cochrane Review,[70] have investigated multidisciplinary palliative care interventions that involve a spiritual care component, typically delivered by a chaplain.

Descriptions of the spiritual care content provided in these interventions are limited, and spiritual care was tailored to each patient and family. Furthermore, these studies embedded spiritual care within a larger intervention, making it unclear which aspects of the intervention (or combinations) influenced outcomes.

Despite limitations, these studies have shown positive associations with outcomes, including reduced symptoms, improved QOL (or subdomains), and decreased healthcare utilization.[71–78] Rabow et al.[71] in a randomized trial of an interdisciplinary team intervention (including chaplains) involved assessment and recommendations to the patient's primary care provider in five domains: physical, psychological, social support, spiritual, and advance care planning. This study of 90 patients with advanced illnesses found decreased anxiety and dyspnea, improved sleep quality and spiritual well-being, and decreased primary care physician and urgent care visits in the intervention compared with the control group. Another randomized trial examined the impact of an interdisciplinary home-based healthcare program (delivered by an interdisciplinary team, including chaplains) that assessed and addressed physical, psychological, social, and spiritual needs of patients and their families.[72] This study of 298 seriously-ill patients found greater satisfaction with care, greater home deaths, less emergency room visits, less hospitalizations, and reduced costs in the intervention compared with the control group. A randomized trial of an eight-session educational intervention focusing on strategies to improve QOL in five domains—cognitive, emotional, social, physical, and spiritual—was performed among 115 advanced cancer patients receiving palliative radiotherapy.[73] This study demonstrated better maintenance of QOL (including the spiritual subdomain) among intervention patients. A prospective study of 491 patients with lung cancer tested the effectiveness of an interdisciplinary palliative care intervention addressing patient well-being in four domains—physical, psychological, social, and spiritual—and found better QOL (including spiritual well-being), lower psychological distress, better symptom control, and greater completion of advance directives in the intervention as compared with the control group.[76] A prospective study of an interdisciplinary palliative care intervention for 366 family caregivers of patients with lung cancer that addressed caregiver physical, psychological, social, and spiritual well-being found better social and psychological well-being as well as less caregiver burden in the intervention group as compared with the usual care group.[77,78]

Finally, one intervention examined the impact of a dedicated spiritual care intervention delivered by physicians, where chaplaincy resources were also available to patients within the intervention structure.[79] This study alternately assigned 118 consecutive cancer patients to a brief, semi-structured inquiry about spiritual and/or religious concerns by trained oncologists; with 76% of patients receiving the intervention reporting that it was useful. At three weeks postintervention, the intervention group had greater reduction in depressive symptoms, better QOL, and better patient ratings of interpersonal caring from their physician.

Mind-Body Interventions. The final category of spiritual interventions includes mind-body interventions such as massage and meditation. There are mixed findings regarding its benefits to patient well-being in the palliative care setting. Two randomized trials[80,81] of mindfulness-based stress reduction (MBSR) were evaluated in a recent Cochrane review,[70] which reported no difference between intervention and control groups. A pilot randomized trial reported no significant treatment effects of either massage or guided mediation in palliative care patients over a 10-week period when compared with the control group.[80] An additional non-randomized study compared cancer patients participating in an MBSR program and a healing arts program on measures of post-traumatic growth, spirituality, stress, and mood disturbance.[82] In comparison with the healing arts group, MBSR participants showed more improvement on measures of spirituality, anxiety, anger, overall stress symptoms, and mood disturbance. A randomized trial among 83 metastatic melanoma patients compared the effects of spiritually-focused meditation and secularly-focused meditation, and reported that spiritually-focused meditation participants had reduced depression and increased positive effect compared with the control group.[83]

Table 4
Research Priorities in Spirituality and Palliative Care—Spiritual Screening/History-Taking/Assessment, Chaplaincy, Interventions, and Education

Spiritual screening, history-taking, and assessment	- Conduct research that applies existing instruments to the palliative setting and tests their validity, reliability, and clinical usefulness, resulting in model refinement and emergence of what are standardized models for screening, history-taking, and assessment. - Adapt models of inquiry to unique populations, cultural, spiritual, and religious contexts, with sensitivity to the unique manifestations of spirituality in specific contexts (e.g., pediatrics, certain disease settings, particular religious/spiritual traditions or cultures, etc). - Conduct research to develop and validate and establish gold standard palliative care spiritual assessment tool. - Conduct research to determine how screening, history-taking, and assessment function within the context of interdisciplinary spiritual care, such as determining the interfacing roles of spiritual screening, history taking, and assessment.
Chaplaincy	- Conduct research to determine the religious and spiritual resources and needs informing professional spiritual care. - Define key elements of professional spiritual care practice in palliative care. - Define professional spiritual care structure within palliative care, including training/credentialing. roles within interdisciplinary palliative care teams, and characterization of chaplaincy workforce and workforce needs within palliative care. - Define the outcomes related to professional spiritual care provision to patients, families, and staff in the palliative care settings using robust research designs (e.g., prospective designs that minimize confounding) and across diverse disease and cultural settings.
Interventions	- Include rigorous conceptualization of the spiritual care interventions, including the domains of spirituality being targeted and conceptually-related outcome measures, with robust methods to evaluate the impact of spiritual interventions over time. - Ground the development of spiritual interventions in real world clinical practice and on the identified spiritual domains related to key patient outcomes in the literature. - In intervention research, identify and address those individuals most in need of a spiritual care intervention, and target those domains of need. - In piloting and evaluating spiritual interventions, use patient, family, and health care team input to determine utility and face validity and to ensure that interventions are clinically relevant and patient-centered. - Using intervention research, refine clinical models for spiritual care delivery and translate these models to clear clinical roles for palliative care providers and training models to practically guide the integration of spiritual care within palliative care.
Education	- Perform research that further refines the requisite spiritual care competencies relevant to each of the disciplines involved in providing palliative care. - Develop evidence-based spiritual care training curricula. - Develop evaluation tools specific to testing spiritual care competencies. - Test spiritual care training models using rigorous methods, including assessing impact on clinical spiritual care provision, patient outcomes as well as clinician outcomes, such as burnout.

Limitations and Research Priorities in Spiritual Care Interventions. A fundamental limitation in the literature is the frequent lack of conceptual clarity regarding what constitutes spirituality, and hence a spiritual care intervention. Furthermore, many studies lacked a conceptual model of how the spiritual intervention is hypothesized to be related to the outcome(s) of interest, examined a myriad of outcomes with varying measures, and few studies used rigorous testing methods. Despite the prevalence of spiritual distress in palliative care populations and its known relationship to poorer outcomes,[22,84] including its recognition as a "diagnosis" by the National Comprehensive Cancer Network,[85] and acknowledgement by palliative care clinicians as a research priority,[1] current intervention research is largely not targeting spiritual distress. Furthermore, spiritual interventions have largely been performed without targeting a specific group for whom the intervention is potentially most useful, reducing the likelihood that an intervention effect will be found.

Despite the observation that spirituality is highly individualized and culturally informed, the integration of patient and family input into the design, implementation, and evaluation of spiritual interventions was largely absent in these studies. In addition, such an approach can aid in addressing a related gap in the literature, the validation of spiritual measures and interventions in diverse patient populations and cultures. Finally, the transfer of intervention research into clinical practice has been identified as an overarching research gap,[86] which is particularly true for research on spiritual interventions. To fill this gap, researchers may consider interventions developed for other health conditions, such as post-traumatic stress disorder,[87] that include a spiritual component and could be extending to palliative care.

How Do We Train Healthcare Professionals to Address Spirituality in Palliative Care?

The final spirituality and palliative care research domain addressed by SOS-SPC team was education research in spirituality and palliative care. The 2009 Spiritual Care Consensus Conference identified key competencies for providers of spiritual care in the

palliative care setting.[21] These include that all members of the palliative care team should: 1) have training in spiritual care commensurate with their scope of practice, 2) be aware of the basics of spiritual screening and history taking, 3) be aware of spiritual resources available to patients (e.g., chaplaincy), 4) be trained in the tenets of different faiths and cultures to provide spiritually and culturally sensitive care, 5) have basic training in how spiritual values and/or beliefs can influence patient and family medical decisions, 6) have awareness of the varying spiritual care roles of different providers and when to refer to each, 7) have training in compassionate presence and active listening, and 8) have training in spiritual self-reflection and self-care.

Despite these recommendations, and the presence of spiritual care as one of eight key domains of quality palliative care within the National Consensus Project Guidelines,[88] spiritual care in the palliative care setting remains infrequent.[31,43,44] Although clear strides have been made in spirituality education in the medical school setting,[21,89] such training in the post medical school setting is limited. This paucity of education is illustrated by a survey-based study of 339 physicians and nurses caring for advanced cancer patients, with only 12% of nurses and 14% of physicians reporting receiving any spiritual care training.[44] In this same study, training was the strongest predictor of spiritual care provision to patients.

The recommendations set forth by the Spiritual Care Consensus Conference call for research that targets methods of meeting those competencies; however, there is a paucity of such research.[21] Outcomes of a large demonstration project on integrating spiritual care within palliative care at nine healthcare settings in California identified the need for spiritual care education to a wide range of staff as well as the need for identification of appropriate spiritual care roles of various disciplines as key to spiritual care integration.[90] Two small studies reported on the experiences of clinical pastoral education adapted for healthcare practitioners with a suggestion that these programs improved spiritual care compentency.[91,92] Key limitations include that these are small studies of participants who were self-selected, and the clinical feasibility of these programs is doubtful because of the time-intensive nature of these programs.

Key Gaps and Research Priorities in Healthcare Training Spirituality and Palliative Care. There are notable limitations to the current body of research informing training at the intersection of spirituality and palliative care. Major gaps include a dearth of evidence-based development of curricula to train in the identified spiritual care competency areas, as well as the lack of standardized methods of assessing those competencies. Furthermore, research is needed to determine and further refine each of the spiritual care competencies identified at the Spiritual Care Consensus Conference. Spiritual care interdisciplinary roles and skill sets (e.g., clinical care providers, social workers) need to be defined to guide training for varying specialties. Finally, data are needed to assess best training practices for achieving the identified spiritual care competencies for health care providers.

Conclusions

Based on the current research landscape, priorities for spirituality research in palliative care within the domains of spiritual screening/history-taking/assessment, chaplaincy, interventions, and education have been identified (Table 4). Such research efforts will advance evidence-based methods for the integration of spirituality into palliative care practice and promote integrated care of the physical, emotional, social, and spiritual well-being of patients and families with serious illness.

The field of spirituality and palliative care is at a critical juncture. By rigorously and comprehensively addressing the spectrum of spiritual expressions within illness, from spiritual pain to spiritual flourishing and across religious and cultural contexts, palliative care will advance whole-person care of patients and their families. Spiritual care provision relies on a strong evidence base that includes consistent terminology, clear concepts, systematic inquiry, and tested interventions. Furthermore, it relies on approaches, measures, and interventions developed and tested within populations diverse in beliefs systems (religious and non-religious) and cultural expression of those beliefs and practices. Researchers and clinicians may embrace this opportunity to bring expertise to this area so fundamental to patient and family preferences, beliefs, and QOL.

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