Asia-Pacific Journal of Clinical Oncology

Asia-Pacific Journal of Clinical Oncology 2016 doi: 10.1111/ajco.12654

ORIGINAL ARTICLE

The current practice, preparedness and educational preparation of oncology professionals to provide spiritual care

Ganessan KICHENADASSE,[1] Linda SWEET,[2] Ann HARRINGTON[2] and Shahid ULLAH[3]

[1]*Flinders Centre for Innovation in Cancer, Flinders Medical Centre,* [2]*School of Nursing & Midwifery, Flinders University, and* [3]*ANZDATA & ANZOD Registry, South Australian Health & Medical Research Institute, Adelaide, South Australia, Australia*

Abstract

***Aim*:** Limited data are available on how spiritual needs of patients with cancer care are addressed by Australian oncologists. The objectives of this study were to explore the current practice, preparedness and education of Australian oncologists and oncology trainees on the provision of spiritual care for their patients with cancer.

***Methods*:** Participants were recruited through oncology professional organizations and data collected through an anonymous online survey using a validated questionnaire.

***Results*:** Responses from a total of 69 medical professionals were suitable for data analysis. The majority of the respondents had encountered patients with spiritual care needs during clinical consultations. Only 45% of the respondents perceived that they were able to meet the spiritual needs of their patients. Barriers to providing spiritual care identified a lack of time, education and understanding of spirituality and spiritual care in the context of health. Only 25% stated they had received some form of education on spiritual care with 7% of these stated that the education was adequate. Participants believed that they learnt how to provide spiritual care on the job or because of their self-interest, and not as formal training.

***Conclusion*:** The results of this study indicate that Australian oncology professionals often encounter patients with spiritual care needs in their clinical practice. Despite this finding, only a small proportion of the medical professionals had education on spiritual care during their professional training. Forty-five percent of the medical practitioners believed that they were able to partly or completely meet their patients' spiritual care needs.

Key words: oncologist, patient care, spirituality

BACKGROUND

Acute and chronic illnesses often result in physical, psychosocial and spiritual suffering and activate a spiritual quest.[1] When people are faced with life-threatening conditions such as cancer resulting in physical and emotional suffering, they often reflect on their lives and question its meaning and purpose, which are important components of spirituality. Although several authors have tried to differentiate spirituality from religion, there seems to be no uniformly accepted definition for spirituality. In its simplest form, one can consider spirituality as one that gives meaning to their life. A consensus conference of various professionals defined spirituality as the "aspect of humanity that refers to the way individuals seek and express meaning and purpose and the way they experience their connectedness to the moment, to self, to others, to nature, and to the significant or sacred."[2] This definition is inclusive of philosophical, religious, spiritual and existential

Correspondence: Dr Ganessan Kichenadasse, Flinders Centre for Innovation in Cancer, Flinders Medical Centre, Flinders University, Bedford Park, South Australia 5042, Australia.
Email: ganessan.kichenadasse@flinders.edu.au

Conflicts of interest: none

Accepted for publication 7 November 2016.

issues commonly seen in clinical practice. For the purposes of this research, this multidimensional underpinning of spirituality that captures meaning in/of life as the prime focus was used.

Exploring their own spirituality may give meaning to the suffering, enable individuals to experience psychological growth, and help find hope in time of despair.[3,4] As spirituality is a universal feature of human life, everyone has a spiritual history that needs assessment whenever an illness strikes or disease state develops in a person.[5] The importance of spiritual care extends through the whole trajectory from health promotion/prevention, to living with disease, and to terminal stages of life.[6]

Receiving optimal professional support during the times of spiritual need can be considered as "spiritual care." Need for spiritual care has been explored in various fields of health, including patients with chronic illnesses like cardiovascular, renal, lung and neurological diseases as well as mental illnesses like anxiety and depression.[4] However, such needs are more pronounced in patients with cancer due to the heightened emotional fear of facing a life-threatening illness.[7,8] Health professionals commonly encounter patients with such spiritual care needs. Because of the potential for improved health outcomes, it is highly relevant that healthcare providers be involved in the provision of spiritual care.[9] However, the degree to which healthcare providers, especially medical professionals, engage in the provision of optimal spiritual care is unknown. Unmet spiritual needs of advanced cancer patients by the healthcare providers have been identified by various authors.[10–12] Appropriate spiritual care could potentially improve outcomes, including patient satisfaction and quality of life.[10,13–15] A recent survey of oncology healthcare providers from the United States (medical oncologists and nurses) identified that although the majority (>80%) felt it was appropriate for patients to receive spiritual care occasionally, only 25% of their patients received optimal care.[16] However, there is limited published information available regarding Australian oncology medical professionals and their training in spiritual care. It is unclear if the spiritual needs of the patients with cancer are being addressed by the treating oncologists within Australia.

Previously published studies identified a lack of training in this area as a reason for not being able to address the spiritual needs of patients.[16,17] Various American medical schools have recognized this deficiency and have incorporated education on spiritual care into the medical curriculum.[18] In other countries including Australia, such education in spiritual care is not commonly available to medical students. Recent efforts to introduce education in spirituality and spiritual care in the context of medical education had some success in selected Australian medical schools.[19,20]

This study was conducted to explore their preparedness and current practice of Australian oncologists and oncology trainees on the provision of spiritual care for their patients with cancer. In addition, it is aimed to evaluate Australian oncologists' and oncology trainees' prior education on providing spiritual care for patients with cancer.

METHODS

A quantitative cross-sectional survey was conducted to collect data at one point in time using an anonymous online self-administered questionnaire through SurveyMonkey[5]. The questionnaire developed and validated by McSherry *et al.*[21,22] provided adequate resource material. This questionnaire incorporated questions on demographics, the Spirituality and Spiritual Care Rating Scale" (SSCRS) of the respondents and their prior training in spiritual care. Permission to use the questionnaire was obtained from Professor Wilf McSherry, Faculty of Health, Staffordshire University and the Shrewsbury and Telford Hospital, United Kingdom. The questionnaire was modified only in context so as to make it suitable for medical professionals, and with the addition of questions regarding educational preparation without affecting the reliability and validity of the questionnaire while SSCRS was not modified.

The intended study population was medical professionals including practicing oncologists and oncology trainees currently undergoing their specialist medical training in Australia. The two primary organizations that support oncologists in Australia are the Medical Oncology Group of Australia (MOGA) and the Royal Australian and New Zealand College of Radiologists (RANZCR). Current members of MOGA or RANZCR comprised the original study sampling frame. The Clinical Oncology Society of Australia (COSA) was added later to the study sampling frame to improve response rates to the survey, due to the poor response rates from the MOGA and RANZCR members. The managing administrative personnel of each of the organizations (COSA, MOGA and RANZCR) were requested to send an email invitation to its members to participate. The body of the email had a hyperlink to the questionnaire on SurveyMonkey[5]. A remainder email was sent 4 weeks after the first contact.

A sample size of $n = 182$ was calculated to be required to provide a meaningful evaluation of the spirituality and need for spiritual care as perceived by the participants.

This sample size was derived with an assumption that 50% of the participants have a spiritual care rating of 18 with a precision of 0.10 and 95% confidence interval using the power analysis and sample size (PASS) software. The research study was approved by the Social and Behavioral Research Ethics Committee at Flinders University.

Missing data was dealt in the following ways: (i) either deleting cases if the participants did not answer more than part A of the survey, (ii) deleting the variable if a large number of participants failed to respond to a particular question or (iii) by performing imputation i.e. substitution of the missing value by best guess valid code.[23]

The collected quantitative data were analyzed with descriptive and inferential statistics. Proportion and means in each category, as well as variations in the form of standard deviations for discrete and continuous measures was calculated. Descriptive statistics for continuous measurements were expressed as mean and standard deviation (SD), whereas percentages were calculated for categorical data. Median and Interquartile ranges (IQR) were reported for skewed data. An independent sample *t* test and Chi-square test were used for testing two means for spiritual care score and two proportions for perceived ability to meet spiritual care. A multivariate linear regression model for the normally distributed spiritual care scores and binary logistic regression model for perceived ability to meet spiritual care outcomes were also generated. All statistical analyses were performed using STATA® software, version 12.0 (StataCorp. 2011, Texas, USA).

Using the SSCRS, perceptions and attitudes of the respondents were evaluated. The SSCRS provided enough information for calculation of total SSCRS scores and spiritual care scores.[22] The scale had two components-respondents' understanding of spirituality, and their perceptions on spiritual care. Based on the responses in the 5-point Likert scale with 1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree and 5 = strongly agree, two different scores were calculated-total SSCRS score and spiritual care score. The total SSCRS score was calculated using all the 17 items whereas spiritual care score was calculated using just six items (Table 1-items a, b, g, h, k, n). Mean and standard deviation for the SSCRS and spiritual care scores were calculated. A low spiritual care score indicated that the respondents did not believe that the healthcare professionals may be able to provide spiritual care by various means including referring to a chaplain, showing kindness and compassion, spending time with the patients, enabling patients to find meaning in their life and respecting cultural beliefs of their patients. A high score indicated that respondents believed that medical practitioners may be able to play a major role in the provision of spiritual care to their patients. An exploratory analysis of identifying factors that predicted high spiritual care scores and self-perceived ability to meet spiritual are needs was performed.

Some of the questions in the survey had qualitative response options. Descriptive content analysis was performed on the text data.[24] Cyclical coding was performed to identify patterns in data for categorization. Using a process of analytical reflection of the categories that were explicit in the data, concepts were derived to increase understanding of the attitudes and perceptions of oncologists on spiritual care for their patients.[25] Following the principles of content analysis,[26] the sample to be categorized was identified and the number of times the categories occurred was counted and results presented.

RESULTS

During the 10 months (March 2014–December 2014) of data collection, 129 respondents commenced responding to the survey. However, 22 were incomplete or inadequate for analysis and 38 were completed by non-medical professionals, who were members of COSA and therefore excluded from this analysis. The results of the remaining 69 completed surveys by medical professionals (both oncologists and trainees) are presented below.

Among the medical professionals, the majority ($n = 58$, 84%) were medical oncologists or trainees with the remaining being radiation oncologists or trainees ($n = 11$, 16%). The details can be found in Table 2. Using the total membership number from MOGA (personal communication from the office of MOGA), it was established that approximately 10% (58 out of 616 total members in 2014) of the medical oncologists and trainees responded to the survey. Other researchers within Australia have reported such low response rates for survey studies involving oncologists. For example, a recent survey of oncologists on pain management by Australian psycho-oncology research group had a similar low response rate.[27]

Most (58%) of the medical professionals were older than 40 years of age, 53% were women, and 69% were working full-time within public hospital system as consultants. Only seven respondents were undergoing training at the time of survey. Near equal numbers of respondents had less than 5 years of work experience (41%) and more than 10 years of experience (43%). Almost 60% had stated they had a religious affiliation with Christianity being the main religion.

Table 1 SSCRS-Spirituality and spiritual care rating scale questions[21]

a	I believe spirituality is concerned with a need to forgive and a need to be forgiven
b	I believe spirituality involves only going to church/place of Worship
c	I believe spirituality is not concerned with a belief and faith in a God or Supreme Being
d	I believe spirituality is about finding meaning in the good and bad events of life
e	I believe spirituality is about having a sense of hope in life
f	I believe spirituality is to do with the way one conducts one's life here and now
g	I believe spirituality is a unifying force which enables one to be at peace with oneself and the world
h	I believe spirituality does not include areas such as art, creativity and self-expression
i	I believe spirituality involves personal friendships, relationships
j	I believe spirituality does not apply to atheists or agnostics
k	I believe spirituality includes peoples' morals
l	I believe medical professionals can provide spiritual care by arranging a visit by the hospital chaplain or the patient's own religious leader if requested
m	I believe medical practitioners can provide spiritual care by showing kindness, concern and cheerfulness when giving care
n	I believe medical professionals can provide spiritual care by spending time with a patient giving support and reassurance especially in time of need
o	I believe medical professionals can provide spiritual care by enabling a patient to find meaning and purpose in their illness
p	I believe medical professionals can provide spiritual care by listening to and allowing patients' time to discuss and explore their fears, anxieties and troubles
q	I believe medical professionals can provide spiritual care by having respect for privacy, dignity and the religious and cultural beliefs of a patient

Spiritual care in clinical practice

From the survey responses, 84% of the medical professionals agreed that they have seen patients with spiritual care in their practice. Patients' spiritual care needs were identified by the medial professionals during their clinical encounters via patient themselves or patients' family and friends. However, only 45% of medical professionals perceived that they were somewhat able to meet the spiritual needs of their patients. The majority (90%) of medical professionals preferred that optimal spiritual care should be provided by clergy or chaplains while 70% identified that a medical practitioner should be involved in the provision of spiritual care to their patients.

The responses to a qualitative question on who should provide spiritual care varied from "not my role as doctor" to "by anyone who has the courage and the skills," and "responsibility is no one's and everyone's." Several barriers to providing spiritual care were mentioned by the respondents including lack of time, lack of training and lack of understanding of spirituality and spiritual care in the context of health.

Education on spiritual care

For the question if medical practitioners received sufficient education on matters concerning spiritual care, the vast majority (82%) indicated that they never had any education or it was inadequate, whereas only 7% stated that they received adequate education. However, 25% of medical professionals acknowledged that they had been formally educated on the provision of spiritual care during their professional training. The reminder stated that they did not receive any formal education.

Among the respondents who identified themselves as having had formal education on spiritual care during their professional training, nine out of 17 responded that they received it during their undergraduate years of medical training whereas only two had some education after becoming a practicing oncologist. Self-directed learning, formal lectures and case-based discussions were the format they learnt about spiritual care. There was no major preference on when and by whom should the education on spiritual care be provided.

Spirituality and spiritual care rating scale

The mean total score and spiritual care score for medical professionals was 60.6 (±SD 5.4) and 20.7 (±SD 2.4), respectively. None of the characteristics was significantly associated with high spiritual care scores for medical or nonmedical professionals (Table 3). An exploratory analysis of demographic characteristics (age, gender, working hours, place of work, experience in oncology, religion, practicing religion or type of religion) did not reveal any significant association with self-perceived ability to meet the spiritual care needs of their patients (Table 4).

Table 2 Participant's characteristics ($n = 69$)

Characteristics	Survey respondents ($n = 69$)
Sex	
Male	33 (47.8)
Female	36 (52.2)
Age, years	
<40	29 (42.0)
40–49	20 (29.0)
50+	20 (29.0)
Working hour	
Part time	22 (31.9)
Full time	47 (68.1)
Place of work	
Public	34 (49.3)
Private	9 (13.0)
Both	25 (36.2)
Other	1 (1.5)
Oncology experience, years	
≤5	28 (40.6)
6–10	11 (15.9)
11–25	19 (27.5)
25+	11 (15.9)
Religion	
No	20 (32.8)
Yes	41 (67.2)
Type of religion	
Christianity	33 (80.5)
Other	8 (19.5)
Practice religion	
No	12 (29.3)
Yes	29 (70.7)

Table 3 Multivariate linear regression (spiritual care score *vs* group)

Spiritual care score	Coefficient	Standard error
Gender	0.89	0.63
Training	0.49	0.74
Age group (<40)		
40–49	1.30	0.98
50–59	0.94	1.61
60+	0.15	1.82
Religion	0.71	0.66
Oncology experience (<5 years)		
6–10 years	0.77	0.96
11–25 years	1.28	1.25
25+ years	1.03	1.75

Table 4 Logistic regression model for self-perceived ability to meet spiritual care needs

Self-perceived ability to meet spiritual care needs	Odds ratio	95% Confidence interval
Gender	3.06	0.92–10.1
Training	1.48	0.38–5.75
Age group (<40)		
40–49	2.46	0.41–14.53
50–59	6.27	0.33–116.30
60+	8.6	0.28–266.85
Religion	2.35	0.67–8.19
Oncology experience (<5 years)		
6–10	0.77	0.13–4.63
11–25	0.20	0.02–1.97
25+	0.47	0.02–11.21

The low response rates to the survey led to inadequate power to make valid conclusions regarding any association between participant characteristics and spiritual care scores.

DISCUSSION

The respondents in this survey described their perceptions and attitudes toward spiritual care in clinical practice and their preparedness to meet the spiritual needs of their patients. There is no published study on Australian oncologists' spirituality and their ability to provide spiritual care to their patients. The only other Australian study of similar nature was reported by Fisher and Brumley[28] who surveyed palliative care physicians from Australia and New Zealand. Our study demonstrated that the Australian healthcare professionals, especially, oncologists and oncology trainees, felt that they were not sufficiently educated and did not have sufficient time to meet the spiritual care needs of their patients. Similar findings have been described by other studies that surveyed oncologists in other countries and other health professionals.[10,22,29–37]

Spiritual needs in patients with cancer could arise anytime during the illness trajectory; at diagnosis, during treatment or post treatment in survivorship phase and finally during the terminal phase of illness. Provision of spiritual care in oncology clinical practice requires a strong interdisciplinary approach with inputs from oncology professionals, chaplains and others with strong support from the local institutional and government agencies.[8,38] The main role of healthcare pro-

fessionals may be to recognize that their patient/client has unmet spiritual needs by performing a spiritual assessment, and to then refer to an appropriate spiritual advisor such as a chaplain or pastoral care professional.[2,38] However, if the medical practitioner is well trained in the provision of full spiritual care, he or she should be able to provide spiritual care interventions for their patients.

The majority of the participants (84% of the medical professionals) responding to the survey indicated that they had encountered patients with spiritual needs in their clinical practice. The need for spiritual care for their patients was recognized by the respondents through various means, including patients themselves bringing it up during consultation or from their families/friends. This finding implied that the healthcare providers were able to recognize the spiritual needs of their patients. However, it is unclear if they used any formal assessment process, like a spirituality screening tool in their clinical practice.

Almost half (45%) of the medical professionals in this study, believed that they were able to meet the spiritual care needs of their patients. The survey did not ask them to elaborate on the details of the provision of spiritual care. However, the responses provided under the free-text option for this question provide some insight into the complex understanding of the respondents, which commonly focused on the barriers to provision of spiritual care. Almost 65% of the respondents to the open text response thought that it was not their role to provide spiritual care. Interestingly, in this study, when a direct question was asked to the respondents on who should be responsible for the provision of spiritual care, almost 70% believed that the medical practitioners should be responsible for the provision of spiritual care. This finding is in contrast to the interpretation of the responses to the qualitative questions where 65% thought it was not their role. This conflicting response is not dissimilar to previously published literature that showed healthcare professionals were unclear and confused about whose responsibility it is to provide spiritual care.[39] Such confusion often arises due to lack of proper understanding of the meaning of spiritual care and spirituality.[40]

The other major barrier participants identified for their inability to deal with spiritual care needs of their patients was "lack of time." Not having adequate time to explore spiritual care issues has been reported by other surveys of oncologists.[16,17,41,42] In such a busy clinical service, staff frequent report perceptions of lack of time during clinic consultations to address spiritual issues of patients. The current workload of practicing oncologists/oncology trainees and the projected increase in new cancer cases in Australia may make it difficult for detailed spiritual assessment during each and every clinic consultations. However, the use of short spiritual assessment tools such as Faith/Beliefs, Importance, Community, Address in care or action (FICA), Hope, Organized religion, Personal spirituality, Effects of care and decisions (HOPE), and Spiritual belief system, Personal Spirituality, Integration, Rituals/restrictions, Implications, and Terminal events (SPIRIT) may be an opportunity to identify major spiritual needs prior to a referral to spiritual care practitioners in an expedite manner.[43] The spiritual assessment may need to be conducted to understand patients' beliefs and practices especially during the initial contact with the healthcare facility. As the disease status constantly changes during the life-time of a patient with cancer, intermittent administration of such screening tools may need to be performed so that spiritual issues may be acknowledged and supported during their interactions. Use of such screening tools can be done quickly, without using up much of the consultation time, and would help with limitations of "lack of time" by the medical professionals.

The final major barrier mentioned by the respondents was "lack of training" on the provision of spiritual care. Only five (7% overall) respondents indicated that they had received sufficient training on matters concerning spiritual care. A national United States physician survey reported that 23% of physicians received spiritual care training,[44] whereas another recent survey from the United States reported 14% of oncologists had received training in spirituality and religion.[16] The proportion of Australian oncologists in this study who had received adequate training in spiritual care was much lower than what United States physicians' reported, but not dissimilar to oncologists in the United States. Such a low proportion among the survey respondents may be explained by: a lack of formal training/education on spirituality in Australian medical curriculum, with the exception of two universities;[20,45] changing perceptions on religion and spirituality among the local population, lack of support from the professional oncology societies; or by the developers of oncology curriculum to discuss/incorporate spirituality and spiritual care. The latter issue is of particular concern as one of the professional organizations approached for this study found the study "too sensitive and lacking in relevance to the oncology profession."

The results from this study provide a basis for the professional associations as well as medical schools to consider incorporating aspects of spirituality and health their respective training curriculum. Increasing awareness among the health professionals on the availability of existing resources such as spiritual care guidelines by Pal-

liative Care Australia and Cancer Australia is an important step to facilitate the learning process. Future research on the effect of the curriculum changes, adoption of spiritual assessment in clinical practice as well as its effects on the utility, quality of life and patient/health care provider satisfaction should be considered.

LIMITATIONS

There are a number of limitations in this study such as low response rates to the survey, prohibiting generalizability of the survey results to the larger population of oncologists and trainees, and the inability to confirm the validity of responses as they were anonymous self-reported responses. It is possible that only those oncologists and trainees with interests in spiritual care completed the survey. However, the contrary cannot be assumed that those did not volunteer to participate in the study were less interested in spirituality as there are other potential reasons such as survey fatigue, lack of visibility of the survey link in the emails and unwillingness to participate due to the sensitive nature of the study.

CONCLUSION

This survey results indicate that Australian oncology professionals often encounter patients with spiritual care needs. Despite a small proportion of the medical professionals having had perceived sufficient education on spiritual care during their professional training, 45% of the medical practitioners felt they were able to partly or completely meet their patients' spiritual care needs.

Questions in the survey

(1) Are you willing to participate in the survey? Yes/No

Part A:

(1) Are you male or female?
(2) To which age group do you belong? 20–29; 30–39; 40–49; 50-59; 60 or more years

Part B:

(1) What is your professional rank? Advanced trainee; research fellow; practicing consultant; other
(2) Do you work full time/part time?
(3) What is the place of your current work? Public hospital; private hospital; both public and private hospital; other
(4) How long have you been working/training in oncology? Less than 1 year; 1–5; 6–10; 11–25; 25 years and above
(5) What type of specialty are you presently working in? Medical oncology; radiation oncology; other (please specify)

Part C:

(1) Spirituality and spiritual care rating scale (SSCRS)
(2) Who do you feel should be responsible for providing spiritual care? (select all that apply) – medical practitioners; nurses; chaplains/clergy; patient themselves; patient's families/friends; other
(3) In your clinical practice, have you encountered a patient(s) with spiritual need(s)? yes/no
(4) If yes, how did you become aware of this need(s)? (select all that apply) – patient himself/herself; patient's relatives/friends; nurses; other medical practitioners; chaplains/religious leaders; listening to and observing the patient; other
(5) Do you feel that you are able to meet your patients' spiritual needs? yes/no
(6) During the course of your medical (or oncology) training, did you receive any education covering spiritual care? yes/no
(7) If yes, when was the education provided? Undergraduate/postgraduate training
(8) In what format was the education provided? (select all that apply) – lectures; case-based discussions; self-learning; experienced on the job; other
(9) In which country did you undertake your undergraduate medical training?
(10) Since qualifying as a medical practitioner, have you been on any training courses which covered spiritual care? yes/no
(11) Do you feel medical practitioners receive sufficient training on matters concerning spiritual care? yes/no – comment
(12) If medical practitioners are to receive education concerning spiritual care, which of the following do you feel responsible for providing education? (you may select more than one) – under-graduate training; post-graduate training; medical practitioner themselves; royal college; combination of the above; employers; other

Part D:

(1) Do you have a religion? yes/no
(2) Are you practicing your religion? yes/no

ACKNOWLEDGMENT

Permission was obtained from Professor Wilfred McSherry to use the SCCRS and reproduce it in the manuscript and sole copyright for the SSCRS remains with him.

REFERENCES

1 Harrington A. The "Connection" health care providers make with dying patients. *J Relig Spiritual Aging* 2006; **18**: 169–85.
2 Puchalski C, Ferrell B, Virani R *et al*. Improving the quality of spiritual care as a dimension of palliative care: the report of the Consensus Conference. *J Pall Med* 2009; **12**: 885–904
3 Puchalski CM, Ferrell, BR. *Making Healthcare Whole: Integrating Spirituality into Healthcare*. Templeton Press, West Conshohocken, PA 2010; 3–16.
4 Koenig HG, Larson DB, Larson SS. Religion and coping with serious medical illness. *Ann Pharmacother* 2001; **35**: 352–9.
5 Sulmasy DP. A biopsychosocial-spiritual model for the care of patients at the end of life. *Gerontologist* 2002; **42**: 24–33.
6 Cohen MZ, Holley LM, Wengel SP, Rabbi Mendel K. A platform for nursing research on spirituality and religiosity: definitions and measures. *West J Nurs Res* 2012; **34**: 795–817.
7 Sulmasy DP. Is medicine a spiritual practice? *Acad Med* 1999; **74**: 1002–5.
8 Surbone A, Baider L. The spiritual dimension of cancer care. *Crit Rev Oncol Hematol* 2010; **73**: 228–35.
9 Harrington A. Spiritual well-being for older people. In: MacKinlay E (ed). *Ageing and Spirituality Across Faiths and Cultures*. Jessica Kingsley Publishers, London, UK 2010; 179.
10 Balboni TA, Vanderwerker LC, Block SD *et al*. Religiousness and spiritual support among advanced cancer patients and associations with end-of-life treatment preferences and quality of life. *J Clin Oncol* 2007 10; **25**: 555–60.
11 Harrison JD, Young JM, Price MA, Butow PN, Solomon MJ. What are the unmet supportive care needs of people with cancer? A systematic review. *Support Care Cancer* 2009; **17**: 1117–28.
12 Pearce MJ, Coan AD, Herndon JE, 2nd, Koenig HG, Abernethy AP. Unmet spiritual care needs impact emotional and spiritual well-being in advanced cancer patients. *Support Care Cancer* 2012; **20**: 2269–76.
13 Vallurupalli M, Lauderdale K, Balboni MJ *et al*. The role of spirituality and religious coping in the quality of life of patients with advanced cancer receiving palliative radiation therapy. *J Support Oncol* 2012; **10**: 81–7.
14 Wasner M, Longaker C, Fegg MJ, Borasio GD. Effects of spiritual care training for palliative care professionals. *Palliat Med* 2005; **19**: 99–104.
15 Saguil A, Phelps K. The spiritual assessment. *Am Fam Physician* 2012; **86**: 546–50.
16 Balboni MJ, Sullivan A, Amobi A *et al*. Why is spiritual care infrequent at the end of life? Spiritual care perceptions among patients, nurses, and physicians and the role of training. *J Clin Oncol* 2013; **31**: 461–7.
17 Peteet JR, Balboni MJ. Spirituality and religion in oncology. *CA Cancer J Clin* 2013; **63**: 280–9.
18 Lucchetti G, Lucchetti AL, Puchalski CM. Spirituality in medical education: global reality? *J Relig Health* 2012; **51**: 3–19.
19 Bridge DT, Bennett KS. "Spirituality, suffering, and healing": a learning option for Western Australian medical students. *J Pain Symptom Manage* 2014; **47**: 659–65.
20 Bennett KB, Bridge D, Shepherd J. Spirituality in medical education: an Australian elective example [online]. *FoHPE* 2014; **15**: 14–21.
21 McSherry W, Draper P, Kendrick D. The construct validity of a rating scale designed to assess spirituality and spiritual care. *Int J Nurs Stud* 2002; **39**: 723–34.
22 McSherry W, Jamieson S. An online survey of nurses' perceptions of spirituality and spiritual care. *J Clin Nurs* 2011; **20**: 1757–67.
23 De Vaus DA. *Surveys in Social Research*. Allen & Unwin, Australia 2002.
24 Liamputtong P, Ezzy D. Making sense of qualitative data: analysis process. *Qualitative Research Methods*. Oxford University Press, Melbourne 2008; 257–85.
25 Saldana J. An introduction to codes and coding. In: *The Coding Manual For Qualitative Researchers*. Sage Publications, London, United Kingdom 2009; 13.
26 Kellehear A. *The Unobtrusive Researcher: A Guide to Methods*. Allen & Unwin, Australia 1993; 32–50.
27 Luckett T, Davidson PM, Boyle F *et al*. Australian survey of current practice and guideline use in adult cancer pain assessment and management: perspectives of oncologists. *Asia-Pac J Clin Oncol* 2014; **10**: e99–107.
28 Fisher JW, Brumley, D. Palliative care doctors need help with spiritual wellbeing. *J Study Spiritual* 2012; **2**: 49–60.
29 Balboni MJ, Babar A, Dillinger J *et al*. "It depends": viewpoints of patients, physicians, and nurses on patient-practitioner prayer in the setting of advanced cancer. *J Pain Symptom Manage* 2011; **41**: 836–47.
30 Balboni MJ, Sullivan A, Enzinger AC *et al*. Nurse and physician barriers to spiritual care provision at the end of life. *J Pain Symptom Manage* 2014; **48**: 400–10.
31 Cetinkaya BA, Azak A, Dundar SA. Nurses' perceptions of spirituality and spiritual care. *Aust J Adv Nurs* 2013; **31**: 5–10.
32 Chibnall JT, Bennett ML, Videen SD, Duckro PN, Miller DK. Identifying barriers to psychosocial spiritual care at the end of life: a physician group study. *Am J Hosp Palliat Care* 2004; **21**: 419–26.
33 Curlin FA, Lantos JD, Roach CJ, Sellergren SA, Chin MH. Religious characteristics of U.S. physicians: a national survey. *J Gen Intern Med* 2005; **20**: 629–34.
34 Ecklund EH, Cadge W, Gage EA, Catlin EA. The religious and spiritual beliefs and practices of academic pediatric oncologists in the United States. *J Pediatr Hematol Oncol* 2007; **29**: 736–42.
35 El Nawawi NM, Balboni MJ, Balboni TA. Palliative care and spiritual care: the crucial role of spiritual care in the

care of patients with advanced illness. *Curr Opin Support Palliat Care*. 2012; **6**: 269–74.
36 Lee E, Baumann K. German psychiatrists' observation and interpretation of religiosity/spirituality. *Evid Based Complement Alternat Med* 2013; **2013**: 280168.
37 Luckhaupt SE, Yi MS, Mueller CV *et al*. Beliefs of primary care residents regarding spirituality and religion in clinical encounters with patients: a study at a midwestern U.S. teaching institution. *Acad Med* 2005; **80**: 560–70.
38 Ferrell B. Meeting spiritual needs: what is an oncologist to do? *J Clin Oncol* 2007; **25**: 467–8.
39 Bennett V, Thompson M. Teaching spirituality to student nurses. *J Nurs Educ Pract* 2015; **5**: 26–33.
40 Vermandere M, De Lepeleire J, Smeets L *et al*. Spirituality in general practice: a qualitative evidence synthesis. *Br J Gen Pract* 2011; **61**: e749–60.
41 Astrow AB, Wexler A, Texeira K, He MK, Sulmasy DP. Is failure to meet spiritual needs associated with cancer patients' perceptions of quality of care and their satisfaction with care? *J Clin Oncol* 2007; **25**: 5753–7.
42 Balboni TA, Paulk ME, Balboni MJ *et al*. Provision of spiritual care to patients with advanced cancer: associations with medical care and quality of life near death. *J Clin Oncol: Official J Am Soc Clin Oncol*. 20 Jan 2010; **28**(3): 445–52.
43 Fitchett G. Next steps for spiritual assessment in healthcare. In: Cobb M, Puchalski C, Rumbold B (eds). *Oxford Textbook of Spirituality in Healthcare*. Oxford University Press, Oxford, United Kingdom 2012; 299–305.
44 Rasinski KA, Kalad YG, Yoon JD, Curlin FA. An assessment of US physicians' training in religion, spirituality, and medicine. *Med Teach* 2011; **33**: 944–5.
45 Puchalski C, Cobb M, Rumbold M. Curriculum development in spirituality and health in health professions. In: Cobb M, Puchalski C, Rumbold B. (eds). *Oxford Textbook of Spirituality in Healthcare*. Oxford University Press, Oxford, United Kingdom 2012; 417–427.